

651 Commerce Drive Roseville, CA 95678

phone (916) 781-3636 fax (916) 783-7693 web www.ncpa.com

# Facilities Committee Meeting Agenda

Date:	January 3, 2024
Subject:	NCPA Facilities Committee Meeting
Location:	NCPA, 651 Commerce Drive, Roseville, California 95678 // Conference Call
Time:	9:00 am

\*\*In compliance with the Brown Act, you may participate via teleconference at one of the meeting locations listed below or attend at NCPA Headquarters. <u>In either case</u>, please: (1) post this Agenda at a publicly accessible location at the <u>participation</u> location no later than 72-hours before the meeting begins, and (2) have a speaker phone available for any member of the public who may wish to attend at your location.\*\*

ALAMEDA MUNICIPAL PWR	BAY AREA RAPID TRANSIT	CITY OF BIGGS
2000 Grand St., Alameda, CA	2150 Webster Street, 1 <sup>st</sup> Floor,	3016 Sixth Street, Biggs, CA
	Oakland, CA	
CITY OF GRIDLEY	CITY OF HEALDSBURG	CITY OF LODI
685 Kentucky Street, Gridley, CA	401 Grove Street, Healdsburg, CA	1331 S. Ham Lane, Lodi, CA
CITY OF LOMPOC	CITY OF PALO ALTO	PLUMAS-SIERRA REC
100 Civic Ctr. Plaza, Lompoc, CA	250 Hamilton Avenue, 3 <sup>rd</sup> Floor	3524 Mulholland Way, Sacramento CA
	Palo Alto, CA	
PORT OF OAKLAND	CITY OF REDDING	CITY OF ROSEVILLE
530 Water Street, Oakland, CA	3611 Avtech Pkwy., Redding, CA	2090 Hilltop Circle, Roseville, CA
CITY OF SHASTA LAKE	SILICON VALLEY POWER	TURLOCK IRRIGATION DISTRICT
4332 Vallecito St., Shasta Lake, CA	881 Martin Ave., Santa Clara, CA	333 E. Canal Drive, Turlock, CA
CITY OF UKIAH		
300 Seminary Ave., Ukiah, CA		

NCPA, 651 Commerce Drive, Roseville, CA 95678 (916) 781-3636

The Facilities Committee may take action on any of the items listed on this Agenda regardless of whether the matter appears as a Discussion/Action Item or a Report or an Information Item. When this Agenda is supplemented by Staff Reports, they are available to the public upon request. Pursuant to California Government Code Section 54957.5, the following is the location at which the public can view Agendas and other public writings: NCPA Offices, 651 Commerce Drive, Roseville, California, or <u>www.ncpa.com</u>.

Persons requiring accommodations in accordance with the Americans with Disabilities Act in order to attend or participate in this meeting are requested to contact the NCPA Secretary at (916)781-3636 in advance of the meeting to arrange for such accommodations.

# **REVIEW SAFETY PROCEDURES**

# 1. Call Meeting to Order and Roll Call

#### PUBLIC FORUM

Any member of the public who desires to address the Committee on any item considered by the Committee at this meeting before or during the Committee's consideration of that item shall so advise the Chair and shall thereupon be given an opportunity to do so. Any member of the public who desires to address the Committee on any item within the jurisdiction of the Committee and not listed on the Agenda may do so at this time.

# **OPEN SESSION**

#### **DISCUSSION / ACTION ITEMS**

- 2. Approval of Minutes Approve minutes from the December 6, 2023 Facilities Committee meeting.
- **3.** All NCPA Facilities, Members, SCPPA Irani Engineering, Inc. MTCSA Staff is seeking a recommendation for Commission approval of a five-year Multi-Task Consulting Services Agreement with Irani Engineering, Inc. for injection well related consulting services, with a not to exceed amount of \$2,000,000, for use at all facilities owned and/or operated by NCPA. All purchase orders will be issued following NCPA procurement policies and procedures. (*Commission Category: Consent; Sponsor: CTs*)
- 4. All NCPA Facilities Advanced Chemical Transport, Inc. dba ACTEnviro MTGSA Staff is seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Advanced Chemical Transport, Inc. dba ACTEnviro for waste removal services, with a not to exceed amount of \$3,000,000, for use at all facilities owned and/or operated by NCPA. All purchase orders will be issued following NCPA procurement policies and procedures. (Commission Category: Consent; Sponsor: CTs)
- 5. All NCPA Facilities, Members, SCPPA Process Cooling International, Inc. dba Applied Process Cooling Corp dba APCCO MTGSA – Staff is seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Process Cooling International, Inc. dba Applied Processing Cooling Corp dba APCCO for insulation related services, with a not to exceed amount of \$4,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. (Commission Category: Consent; Sponsor: CTs)
- 6. All NCPA Facilities, Members, SCPPA Eaton Corporation MTGSA Staff is seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Eaton Corporation for electrical related services, with a not to exceed amount of \$2,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. (Commission Category: Consent; Sponsor: CTs)
- 7. All NCPA Facilities Univar Solutions, Inc. MTEMS Staff is seeking a recommendation for Commission approval of a five-year Multi-Task Agreement for Purchase of Equipment, Materials and Supplies with Univar Solutions, Inc. for the purchase of specialty chemicals, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA. All purchase

orders will be issued following NCPA procurement policies and procedures. (*Commission Category: Consent; Sponsor: Geo*)

- 8. All NCPA Facilities (except LEC), Members, SCPPA Reliable Turbine Services, LLC MTGSA Staff is seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Reliable Turbine Services, LLC for inspection and maintenance related services, with a not to exceed amount of \$10,000,000, for use at all facilities owned and/or operated by NCPA (except LEC), NCPA Members, SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. (Commission Category: Consent; Sponsor: Geo)
- 9. All NCPA Facilities, Members, SCPPA Quantum Spatial, Inc. dba NV5 Geospatial, Inc. First Amendment to MTGSA – Staff is seeking a recommendation for Commission approval of a First Amendment to the five-year Multi-Task General Services Agreement with Quantum Spatial, Inc. dba NV5 Geospatial, Inc. for transmission and distribution line and other modeling and mapping services, accepting assignment of the agreement to NV5 Geospatial, Inc., with no change to not to exceed amount of \$2,000,000 or contract term, for continued use at all facilities owned and/or operated by NCPA, NCPA Members, SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. (Commission Category: Consent; Sponsor: Hydro)
- 10. All NCPA Facilities Western Hydrologics, LLP MTCSA Staff is seeking a recommendation for Commission approval of a five-year Multi-Task Consulting Services Agreement with Western Hydrologics, LLP for hydrological modeling services, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA. All purchase orders will be issued following NCPA procurement policies and procedures. (Commission Category: Consent; Sponsor: Hydro)
- **11. NCPA Hydroelectric Facility Schneider Electric USA, Inc. First Amendment to MTGSA** Staff is seeking a recommendation for Commission approval of a First Amendment to the five-year Multi-Task General Services Agreement with Schneider Electric USA, Inc. for electric maintenance related services, extending the contract expiration date to December 31, 2024 and making this agreement for use by NCPA's Hydroelectric facility only for work performed under Purchase Order No. 57190, with no change to not to exceed amount of \$2,000,000. All purchase orders will be issued following NCPA procurement policies and procedures. *(Commission Category: Consent; Sponsor: Hydro)*
- **12. Ulteig Engineers, Inc. First Amendment to GSA for Meter Maintenance –** Staff is seeking a recommendation for Commission approval of a First Amendment to the General Services Agreement between NCPA and Ulteig Engineers, Inc. Accepting Assignment to Ulteig Operations, LLC for Meter Maintenance. (Commission Category: Consent; Sponsor: Power Management)
- **13. NCPA Inter-Agency Resource Plan –** Staff is seeking a recommendation for Commission adoption of the NCPA Inter-Agency Resource Plan to prepare, develop, and maintain a diverse generation resource portfolio in accordance with or exceeding renewable portfolio standards and capacity obligations. (*Commission Category: Discussion/Action; Sponsor: Gen Services*)
- 14. NCPA Preliminary Studies and Investigations Procedure Staff is seeking a recommendation for Commission approval of the NCPA Preliminary Studies and Investigations (PS&I) Procedure (GS-201), which will establish a process for the use of funds in the PS&I budget account, including the requirements for project evaluations approvals, funds tracking, and reimbursement. (Commission Category: Discussion/Action; Sponsor: Gen Services)

- **15. NCPA Preliminary Studies and Investigations Conceptual Projects Evaluation Approvals** Staff is seeking a recommendation for Commission approval to proceed with evaluations for two conceptual transmission projects, for an amount not to exceed \$102,000, to be funded from the Preliminary Studies and Investigations (PS&I) budget account. *(Commission Category: Discussion/Action; Sponsor: Gen Services)*
- 16. NCPA Geothermal Facility Fourth Amendment to Resolution 21-109 for the NCPA Geothermal Plant 2, Unit 4 Overhaul Project – Staff is seeking a recommendation for Commission approval of the Fourth Amendment to Resolution 21-109 for the NCPA Geothermal Plant 2, Unit 4 Overhaul Project, increasing the total not to exceed amount of this project from \$7,400,000 to \$7,681,216 for settlement of the final invoice to close out the project. (Commission Category: Discussion/Action; Sponsor: Geo)
- **17. NCPA Geothermal Facility Geothermal Plant 1, Unit 2 Overhaul Project –** Staff is seeking a recommendation for Commission Approval of the Geothermal Plant 1, Unit 2 Overhaul Project and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project in accordance with NCPA purchasing policies and procedures, including approval for the turbine work to be awarded on a sole-source basis, without further approval by the Commission, for a total project cost not exceed \$6,500,000, and authorizing the use of previously collected Decommissioning Funds to fund the project. These funds are to be replenished over a three-year period through the normal budgeting process. (Commission Category: Discussion/Action; Sponsor: Geo)
- 18. Resolution Commending Alan Harbottle Adopt a resolution by all Facilities Committee Members commending the service of Alan Harbottle, acting in the role of Facilities Committee Chair during Calendar Year 2023. (Discussion/Action; Sponsor: Power Management)

# **INFORMATIONAL ITEMS**

- **19. New Business Opportunities –** Staff will provide an update regarding new business opportunities. *(Sponsor: Power Management)*
- 20. Nexant Cost Allocation Model Billing Determinants for FY 2025 Staff will review initial calendar year 2023 billing determinants that will be used in the FY 2025 Nexant Cost Allocation Model. (Sponsor: Power Settlements)
- **21. NCPA Generation Services Plant Updates –** Plant Staff will provide the Committee with an informational update on current plant activities and conditions. (*Sponsor: Generation Services*)
- 22. Planning and Operations Update Staff will provide an update on issues related to planning and operations. (Sponsor: Power Management)
- 23. Next Meeting The next Facilities Committee meeting is scheduled for February 7, 2024.

# **ADJOURNMENT**

SS/cp



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# Minutes

Date:	December 11, 2023
То:	NCPA Facilities Committee
From:	Carrie Pollo
Subject:	December 6, 2023 Facilities Committee Meeting Minutes

1. Call meeting to order & Roll Call – The meeting was called to order by Committee Chair Alan Harbottle (Alameda) at 9:04 am. Attending via teleconference and/or on-line presentation were Midson Hay, Chris Ferrara, and Ben Rings (Alameda), Josh Cook (Biggs), Jake Carter (Gridley), Brad Wilkie (Lompoc), Shiva Swaminathan (Palo Alto), Nick Rossow (Redding), and Monica Nguyen and Jared Isaacson (Santa Clara). Peter Lorenz (non-voting Representative with TID) also attended via teleconference and on-line presentation. Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Healdsburg, Plumas-Sierra, Port of Oakland, Shasta Lake, TID, and Ukiah were absent. A quorum of the Committee was established.

# PUBLIC FORUM

No public comment.

# **OPEN SESSION**

# **DISCUSSION / ACTION ITEMS**

# 2. Approval of Minutes from the November 1, 2023 Facilities Committee Meeting.

Motion: A motion was made by Josh Cook and seconded by Shiva Swaminathan recommending approval of the minutes from the November 1, 2023 Facilities Committee meeting. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Palo Alto, Redding, Roseville, and Santa Clara. The motion passed.

3. All NCPA Facilities, Members, SCPPA – Millennium Power Services, Inc. MTGSA-EMS – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement and Multi-Task Agreement for Purchase of Equipment, Materials and Supplies with Millennium Power Services, Inc. for valve maintenance services and parts, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

This will be a new NCPA vendor. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. This

enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA has agreements in place with IMI Critical Engineering, Inc. and Carter Process Controls (pending) for similar services. A draft Commission Staff Report and the draft agreement were available for review. It is recommended to place this item on the Commission Consent Calendar.

Motion: A motion was made by Jake Carter and seconded by Shiva Swaminathan recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement and Agreement for Purchase of Equipment, Materials and Supplies with Millennium Power Services, Inc. for valve parts and maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Palo Alto, Redding, Roseville, and Santa Clara. The motion passed.

4. All NCPA Facilities, Members, SCPPA – Energy Options, Inc. MTGSA – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Energy Options, Inc. for cooling tower maintenance services, with a not to exceed amount of \$500,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

This is a current NCPA vendor. The current agreement with Energy Options is expiring. NCPA has utilized this vendor in the past, and has a good working relationship with this vendor. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA has agreements in place for similar services with American Cooling Tower, Creative Cooling Technologies and EvapTech, Inc. A draft Commission Staff Report and the draft agreement were available for review. It is recommended to place this item on the Commission Consent Calendar.

Motion: A motion was made Shiva Swaminathan and seconded by Monica Nguyen recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Energy Options, Inc. for cooling tower maintenance related services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$500,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Palo Alto, Redding, Roseville, and Santa Clara. The motion passed.

5. NCPA Geothermal Facility – Nick Barbieri Trucking, LLC dba Redwood Coast Fuels MTEMS – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Agreement for Purchase of Equipment, Materials and Supplies with Nick Barbieri Trucking, LLC dba Redwood Coast Fuels for delivery of fuels, oils, lubricants and other miscellaneous petroleum products, with a not to exceed amount of \$2,000,000, for use at NCPA's Geothermal Facility.

NCPA currently has an agreement in place with Nick Barbieri Trucking, LLC dba Redwood Coast Fuels which is expiring. NCPA has utilized this vendor in the past, and has a good working relationship with the vendor. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA has agreements in place for similar services with Westgate Petroleum Company, Inc., Valley Pacific Petroleum Services, Inc., and Southern Counties Lubricants, LLC. A draft Commission Staff Report and the draft agreement were available for review. It is recommended to place this item on the Commission Consent Calendar.

Motion: A motion was made by Josh Cook and seconded by Shiva Swaminathan recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Agreement for Purchase of Equipment, Materials and Supplies with Nick Barbieri Trucking, LLC dba Redwood Coast Fuels for delivery of fuels, oils, lubricants, and other miscellaneous petroleum products, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years, for use at NCPA's Geothermal facility. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Palo Alto, Roseville, and Santa Clara. ABSTAIN = Redding. The motion passed.

# **INFORMATIONAL ITEMS**

6. New Business Opportunities – Staff provided an update regarding new business opportunities.

**City of Roseville RFP 07-096 –** Staff discussed an RFP for Power Management Services for the City of Roseville which includes front office services, reporting, middle and back office services, and supplemental services. The proposal submission deadline is December 21, 2023. Key consideration and impacts include staffing and resources, impacts on internal technology and systems, developing a cost estimate, the timing of integration, and other policy considerations.

NCPA staff believe it would require additional staffing to be fully responsive to the RFP

- 1 FTE in Pre-Scheduling office
- 1 FTE to support the following functions:
  - Technical integration
  - Reporting
  - Contract management

Costs of additional staffing/resources could be off-set with additional service revenues.

- Technology:
  - Scheduling software BANC / EIM scheduling functionality
  - Database impacts storage of additional information / new types of information
  - Reporting capability development of additional tools for reporting and data sharing
  - Mid-Office development of tools to track and report on active transactional activities
- Estimated services fee
  - Developed using "Nexant" model; developed as if RSVL is receiving services through existing service programs
- Integration
  - Will become high priority project, and will complete with other Agency goals and objectives
- Policy considerations
  - RSVL is a Member of NCPA, but would be taking services via a Services Agreement; as compared to pre-existing program agreements

NCPA will develop a proposal to the City of Roseville RFP 07-096 and present to Roseville for review and consideration.

7. Review of Power Supply Assumptions – Staff provided an overview of the Power Supply Assumptions for the FY 2025 Annual Budget Schedule. SAS OR software is used to optimize generation output as a function of hourly prices, plant operations constraints, outages, and hydro conditions. Average rain, snow, and temperatures are used for the forecast. Key input variables were reviewed by staff, and such input variables were used in the forward curves from EOX's August 31, 2023 model run that forms the basis for the forecasted generation output used in the budget. Staff reviewed the specific data that was used for NCPA Projects including Geo, Hydro, LEC CTs and SFWPA. Summaries of the model outputs were presented to, and reviewed by the Committee. Optimization models were run in November and will be distributed to Plant Managers for review.

The preliminary load-resource balances that will be used in the FY 2025 budget process will be ready for Members review and consideration by January 5, 2024. The final budget inputs are due to the Accounting Division by January 11, 2024, with the final FY 2025 power supply models distributed to Members thereafter. Please contact Ken Goeke with any questions you may have at <u>ken.goeke@ncpa.com</u>.

8. NCPA Generation Services Plant Updates – Plant Staff will provide the Committee with an informational update on current plant activities and conditions.

**Hydro** – Collierville (CV) Power House was at 100% availability during the month of November. New Spicer Meadows (NMS) Power House was at 99% availability due to a 6-hour TIGO for PG&E Comm work. The monthly generation profiles for CV and NMS were shared with the Committee. Precipitation was about half of average for the month. Repairs to the Utica parapet wall and Lake Alpine Dam No 2 have been completed. The main dam for Lake Alpine still has repairs to be completed in 2024. The Utica quinquennial tunnel inspection was also performed during the month.

# New Spicer Meadows Reservoir Storage

- 23,445-acre feet decrease (19%) month-over-month
- 125,300-acre feet to 101,855-acre feet
- Storage levels remain strong going into winter
- Optimizing stored water

# Current Events

- Projects
  - Completed 125V Spicer battery bank replacement project
  - Replaced McKays Rim Landslide dewatering pump
  - Initiating Beaver Creek sluicing permit renewal process
  - Continued FEMA/OES damage coordination
  - CCWD coordination meetings –December 12th
  - DSOD and FERC approved replacement design of the Lake Alpine handrail and walkway system

**CTs –** CT1 had 7 starts of 3 forecasted. FYTD total is 57 starts. CT2 had 1 start of 0 forecasted. FYTD total is 27 starts.

- Outages
  - CT1 Lodi Available
    - CT1 Alameda U1/U2 Available
      - On 11/13/23 @ 1130 thru 1347, Alameda U1 forced due to remote I/O card fault. OMS 14647843.
    - CT2 STIG Available

- CT1 Lodi Run Hours
  - YTD hours 33.4 of 200 Allowed (based on calendar year)
- CT1 Alameda Diesel Hours
  - U1= 4.95 hrs. of 42 (during any consecutive 12-month period)
  - U2= 3.75 hrs. of 42 (during any consecutive 12-month period)
- Safety and Environmental
  - No safety issues to report
  - No environmental issues to report
- 2024 Planned Outages
  - CT1 Lodi- 1/1/24 thru 1/31/24
    - CT Controls Upgrade
    - Gas Compressor Maintenance
    - CT Borescope Inspection
  - CT2 STIG- 4/1/24 thru 4/30/24
  - CT1 Alameda U1/U2- 5/1/24 thru 5/31/24
- Staff reviewed the CAISO Commitment Runs for November 2023

**Geo** – There were no safety incidents on site. However, there was an incident involving vehicle damage and harassment during commute traffic. Safety training is 77% complete. The average Net Generation for the month of November was 48.6 MW. The total net generation was 35 GWh. CY 2023 actual net generation = 490.4 GWh, which is 18.3% below forecast. CY net generation goal is 664.8 GWh. During the month the Unit 4 bridge crane was repaired and RTS re-mobilized to the site. The expected return to service date is late December 2023. The turbine rotor and diaphragm repairs continue for the Unit 1 steam strainer damage. Plant yard and road repairs have been completed.

- **9. Planning and Operations Update –** Staff provided an update on issues related to planning and operations.
  - Resource Integrations
    - NID Deer Creek Dec 2023
    - Lodi Strategic Reserve Resource Nov 2024
    - Scarlet Solar / BESS Mid-2024
    - Proxima Solar / BESS Mid-2024
  - Resource Development
    - ZWEDC negotiations complete
    - Grace Solar Project active negotiation
    - Wildcat Solar Project active proposal
    - NCPA working to refresh Renewable RFP Q1 2024
      - Influenced by IARP due to be presented to the Commission in January 2024
- **10. Next Meeting –** The next Facilities Committee meeting is scheduled for January 3, 2024.

# ADJOURNMENT

The meeting was adjourned at 12:02 pm by the Committee Chair.

# Northern California Power Agency December 6, 2023 Facilities Committee Meeting Attendance List

NCPA Facilities Committee Members, Alternates & Staff are requested to sign, but signature by members of the public is voluntary.

NAME	AFFILIATION
Carrie Pollo	NCPA
L'avo Clianes	Lodi
Monty HADRES	NCPA
Jane Lucikhardt	NCPA
JEREMY LAWSON	NCPA
Jake Eyman	NCPA
BRIAN SCHINGTOCK	Rostille
Kaha Sannua	NCPA
JIM DEACH	NCPA
(DA) DIMINIC	

# Northern California Power Agency December 6, 2023 Facilities Committee Meeting Attendance List

NCPA Facilities Committee Members are requested to sign, but signature by members of the public is voluntary.

MEMBER	NAME
ALAMEDA	
BART	
BIGGS	
GRIDLEY	
HEALDSBURG	
LODI	piago alianez
LOMPOC	
PALO ALTO	
PLUMAS-SIERRA REC	
PORT OF OAKLAND	
REDDING	
ROSEVILLE	BSDD
SANTA CLARA	
SHASTA LAKE	
TID	
UKIAH	



# Commission Staff Report – DRAFT

# COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** Irani Engineering, Inc. – Five Year Multi-Task Consulting Services Agreement for Injection Well Related Consulting Services; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

# AGENDA CATEGORY: Consent

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	If other, please describe:
Department:	Combustion Turbines	

IMPACTED MEMBERS:					
All Members	$\boxtimes$	City of Lodi		City of Shasta Lake	
Alameda Municipal Power		City of Lompoc		City of Ukiah	
San Francisco Bay Area Rapid Transit		City of Palo Alto		Plumas-Sierra REC	
City of Biggs		City of Redding		Port of Oakland	
City of Gridley		City of Roseville		Truckee Donner PUD	
City of Healdsburg		City of Santa Clara		Other	
		If other, please specify			

# **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with Irani Engineering, Inc. for injection well related consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members.

# BACKGROUND:

Various injection well related consulting services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. NCPA has utilized this vendor in the past, and has a good working relationship with this vendor. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. NCPA has an agreement in place for similar services with AECOM Technical Service, Inc.

# FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed \$2,000,000 over five years. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

# **SELECTION PROCESS:**

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from qualified providers as required. Bids are awarded to the vendor providing the best overall value to NCPA. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

# **ENVIRONMENTAL ANALYSIS:**

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

# COMMITTEE REVIEW:

Pending Committee review and approval.

AFTER FACILTIES APPROVAL: On January 3, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On January 8, 2024 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

Respectfully submitted,

# RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 24-XX
- Multi-Task Consulting Services Agreement with Irani Engineering, Inc.

#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK CONSULTING SERVICES AGREEMENT WITH IRANI ENGINEERING, INC.

#### (reference Staff Report XXX:24)

WHEREAS, various injection well related consulting services are required from time to time for the operation and maintenance of facilities owned and/or operated by the Northern California Power Agency (NCPA), NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, Irani Engineering, Inc. is a provider of these services; and

WHEREAS, the NCPA Commission has reviewed the Multi-Task Consulting Services Agreement with Irani Engineering, Inc. to provide such services as needed at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into said Multi-Task Consulting Services Agreement, with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

PASSED, ADOPTED and APPROVED this _	day of	, 2024 by the following vote
on roll call:		

	Vote	<b>Abstained</b>	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR

ATTEST:

CARRIE POLLO ASSISTANT SECRETARY



#### MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND IRANI ENGINEERING, INC.

This Consulting Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Irani Engineering, Inc., a California corporation, with its office located at 35131 Beach Road, Capistrano Beach, CA 92624 ("Consultant") (together sometimes referred to as the "Parties") as of \_\_\_\_\_\_, 2024 ("Effective Date") in Roseville, California.

**Section 1. SERVICES**. Subject to the terms and conditions set forth in this Agreement, Consultant shall provide to Agency the services described in the Scope of Services attached hereto as Exhibit A and incorporated herein ("Services"), at the time and place and in the manner specified therein.

- **1.1** <u>**Term of Agreement.**</u> The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later than five (5) year from the date this Agreement was signed by Agency, whichever is shorter.
- **1.2 Standard of Performance.** Consultant shall perform the Services in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged and for which Consultant is providing the Services. Consultant represents that it is licensed, qualified and experienced to provide the Services set forth herein.
- **1.3** <u>Assignment of Personnel.</u> Consultant shall assign only competent personnel to perform the Services. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Consultant shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- **1.4** <u>Services Provided.</u> Services provided under this Agreement by Consultant may include Services directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.
- **1.5** <u>**Request for Services.**</u> At such time that Agency determines to use Consultant's Services under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific services to be performed ("Requested Services"), may include a not-to-exceed monetary cap on Requested Services and expenditures authorized by that Purchase Order, and a time by which the Requested Services shall be completed. Consultant shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Consultant chooses not to perform the Requested Services. If Consultant agrees to perform the Requested Services, begins to perform the Requested Services, or does not respond within the seven day

period specified, then Consultant will have agreed to perform the Requested Services on the terms set forth in the Purchase Order, this Agreement and its Exhibits.

<u>Section 2.</u> <u>COMPENSATION.</u> Agency hereby agrees to pay Consultant an amount NOT TO EXCEED TWO MILLION dollars (\$2,000,000.00) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

- **2.1** <u>**Invoices.**</u> Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:
  - The beginning and ending dates of the billing period;
  - Services performed;
  - The Purchase Order number authorizing the Services;
  - At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder; and
  - At Agency's option, when the Consultant's Scope of Work identifies tasks, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction.

Invoices shall be sent to:

Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Attn: Accounts Payable <u>AcctsPayable@ncpa.com</u>

- **2.2** <u>Monthly Payment.</u> Agency shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.
- **2.3 <u>Payment of Taxes.</u>** Consultant is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.

- **2.4** <u>Authorization to Perform Services.</u> The Consultant is not authorized to perform any Services or incur any costs whatsoever under the terms of this Agreement until receipt of written authorization from the Contract Administrator.
- 2.5 <u>Timing for Submittal of Final Invoice.</u> Consultant shall have ninety (90) days after completion of its Services to submit its final invoice for the Requested Services. In the event Consultant fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Consultant is deemed to have waived its right to collect its final payment from Agency.

**Section 3. FACILITIES AND EQUIPMENT.** Except as set forth herein, Consultant shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Services.

**Section 4. INSURANCE REQUIREMENTS.** Before beginning any work under this Agreement, Consultant, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

**4.1** <u>Workers' Compensation.</u> If Consultant employs any person, Consultant shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Consultant with limits of not less than one million dollars (\$1,000,000.00) per accident.

# 4.2 <u>Commercial General and Automobile Liability Insurance.</u>

- **4.2.1** <u>Commercial General Insurance</u>. Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- **4.2.2** <u>Automobile Liability</u>. Consultant shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Consultant, on or off Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and

mobile equipment to the extent coverage may be excluded from general liability insurance.

- **4.2.3** <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.
- 4.3 Professional Liability Insurance. Consultant shall maintain professional liability insurance appropriate to Consultant's profession performing work in connection with this Agreement in an amount not less than one million dollars (\$1,000,000) and two million dollars (\$2,000,000) aggregate covering the Consultant's errors and omissions. Any deductible or self-insured retention shall not exceed two hundred fifty thousand dollars (\$250,000) per claim. Such insurance shall be on a "claims-made" basis, subject to the following conditions: (1) the retroactive date of the policy shall be on or before the Effective Date of this Agreement; (2) the policy shall be maintained for at least five (5) years after completion of the Services and, if requested by Agency, evidence of coverage shall be provided during this period; and (3) if, within five (5) years of completion of the Services, coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Agreement, Consultant shall purchase "extended reporting" coverage for a minimum of five (5) years after completion of the Services and, if requested by Agency, provide evidence of coverage during this period.

# 4.4 <u>All Policies Requirements.</u>

- **4.4.1** <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Consultant shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
- **4.4.2 Notice of Reduction in or Cancellation of Coverage.** Consultant shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
- **4.4.3** <u>Higher Limits.</u> If Consultant maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Consultant.
- **4.4.4** Additional Certificates and Endorsements. If Consultant provides services to Agency members, SCPPA, and/or SCPPA members pursuant to this Agreement, Consultant shall provide certificates of insurance and

policy endorsements, as referenced in Section 4.4.1, naming the specific Agency member, SCPPA or SCPPA member.

- **4.4.5** <u>Waiver of Subrogation.</u> Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.
- **4.5** <u>**Consultant's Obligation.**</u> Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensues they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

# Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

- **5.1** <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.
- **5.2** <u>Scope.</u> Consultant shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against any and all claims to the extent that the claims arise out of, pertain to or relate to the negligence, recklessness or willful misconduct of the Consultant in its performance of Services under this Agreement. Consultant shall bear all losses, costs, damages, expense and liability of every kind, nature and description to the extent that they arise out of, pertain to, or relate to such claims, whether directly or indirectly ("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the negligence, active negligence, or willful misconduct of the Agency.

# Section 6. STATUS OF CONSULTANT.

6.1 <u>Independent Contractor.</u> Consultant is an independent contractor and not an employee of Agency. Agency shall have the right to control Consultant only

insofar as the results of Consultant's Services and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Consultant accomplishes Services rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Consultant and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contribution to be paid by Agency for employer contributions and/or employee contributions for PERS benefits.

Consultant shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Consultant and Agency acknowledge and agree that compensation paid by Agency to Consultant under this Agreement is based upon Consultant's estimated costs of providing the Services, including salaries and benefits of employees, agents and subcontractors of Consultant.

Consultant shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Consultant's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Consultant agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Consultant shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Consultant.

- **6.2** <u>**Consultant Not Agent.**</u> Except as Agency may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- **6.3** <u>Assignment and Subcontracting.</u> This Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement

was and is the personal reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the Agency. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Consultant shall supervise all work subcontracted by Consultant in performing the services and shall be responsible for all work performed by a subcontractor as if Consultant itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Consultant from any of its obligations under this Agreement with respect to the services and Consultant is obligated to ensure that any and all subcontractors performing any services shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.

6.4 <u>Certification as to California Energy Commission.</u> If requested by the Agency, Consultant shall, at the same time it executes this Agreement, execute Exhibit C.

# Section 7. LEGAL REQUIREMENTS.

- **7.1** <u>**Governing Law.**</u> The laws of the State of California shall govern this Agreement.
- **7.2** <u>Compliance with Applicable Laws.</u> Consultant and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- **7.3** <u>Licenses and Permits.</u> Consultant represents and warrants to Agency that Consultant and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.

# Section 8. TERMINATION AND MODIFICATION.

**8.1** <u>**Termination.**</u> Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Consultant.

In the event of termination, Consultant shall be entitled to compensation for Services satisfactorily completed as of the effective date of termination; Agency, however, may condition payment of such compensation upon Consultant delivering to Agency any or all records or documents, as referenced in Section 9.1 hereof.

- **8.2** <u>Amendments.</u> The Parties may amend this Agreement only by a writing signed by all the Parties.
- **8.3** <u>Survival.</u> All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Consultant shall survive the termination of this Agreement.
- **8.4 Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
  - **8.4.1** Immediately terminate the Agreement;
  - **8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement;
  - **8.4.3** Retain a different consultant to complete the Services not finished by Consultant; and/or
  - **8.4.4** Charge Consultant the difference between the costs to complete the Services that is unfinished at the time of breach and the amount that Agency would have paid Consultant pursuant hereto if Consultant had completed the Services.

# Section 9. KEEPING AND STATUS OF RECORDS.

- **9.1** Records Created as Part of Consultant's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Consultant hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Consultant agree that, unless approved by Agency in writing, Consultant shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.
- **9.2** <u>Consultant's Books and Records.</u> Consultant shall maintain any and all records or other documents evidencing or relating to charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.
- **9.3 Inspection and Audit of Records.** Any records or documents that this Agreement requires Consultant to maintain shall be made available for

inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Agreement.

# 9.4 Confidential Information and Disclosure.

- **9.4.1** <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as confidential Information in accordance with this section.
- **9.4.2 Non-Disclosure of Confidential Information**. During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confident; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- **9.4.3** <u>Permitted Disclosure.</u> Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
  - **9.4.3.1** Disclosure to employees, agents, consultants, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.

- **9.4.3.2** Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and
- **9.4.3.3** Disclosure by Agency in response to a request pursuant to the California Public Records Act.
- **9.4.4** <u>Handling of Confidential Information</u>. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

# Section 10. MISCELLANEOUS PROVISIONS.

- **10.1** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **10.2** <u>Venue.</u> In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- **10.3** <u>Severability.</u> If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- **10.4** <u>No Implied Waiver of Breach.</u> The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- **10.5** <u>Successors and Assigns.</u> The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

**10.6** <u>Conflict of Interest.</u> Consultant may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Consultant in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.* 

Consultant shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* 

- **10.7** <u>Contract Administrator.</u> This Agreement shall be administered by the Assistant General Manager, Generation Services, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- **10.8 Notices.** Any written notice to Consultant shall be sent to:

Irani Engineering, Inc. Attention: Saeed Irani 35131 Beach Road Capistrano Beach, CA 92624

Any written notice to Agency shall be sent to:

Randy S. Howard General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane E. Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

- **10.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- **10.10** Integration; Incorporation. This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and

Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.

- **10.11** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:
  - **10.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
  - **10.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
  - **10.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
  - **10.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
  - **10.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
  - **10.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*
- **10.12** <u>Controlling Provisions</u>. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Consultant's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Consultant's Proposal, the Purchase Order shall control.
- **10.13** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

- **10.14** <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- **10.15** <u>No Third Party Beneficiaries.</u> This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Consultant provide Services to an Agency member, SCCPA and/or a SCPPA member (collectively for the purposes of this section only "Member") pursuant to section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Services relating to such Member.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

IRANI ENGINEERING, INC.

Date\_\_\_\_\_

Date\_\_\_\_\_

RANDY S. HOWARD, General Manager SAEED IRANI, President

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

# EXHIBIT A

# SCOPE OF SERVICES

Irani Engineering, Inc. ("Consultant") shall provide injection well related consulting services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by Agency, NCPA Members, Southern California Public Power Authority (SCPPA) or SCPPA Members.

Services to include, but not be limited to the following:

- Injection Well Consulting
- Injection Well Maintenance Supervision
- Injection Well Acidizing/Cleaning Supervision
- Surveys

# EXHIBIT B

# COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all tasks, including hourly fees and expenses, shall not exceed amount as set forth in Section 2 of this Agreement. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

# EFFECTIVE: October 1, 2022

WELLSITE SUPERVISION: Rig Supervisor: For first Rig or Wireline Truck Second Rig or Wireline truck on the same day	\$1,800.00 per day \$ 900.00 per day
ENGINEERING & CONSULTING- HOURLY RATES:	\$200.00 per hour
WELLSITE COMMUNICATIONS: Dedicated Cellular Phone & Computer & internet	\$50.00 per day
<u>TRAVEL EXPENSES:</u> Meals per diem (day rate minimum) Mileage Lodging	\$100.00 per day \$2.50 per mile** \$ at Cost, if required
Other Travel (airfare, rental cars, taxis, incidentals)	\$ at Cost
<u>OTHER SERVICES &amp; FEES:</u> 3 <sup>rd</sup> Party Vendor Charges Miscellaneous Office (copies, express mail, phone)	\$ at Cost plus 15% \$ at Cost

Consultant may revise the rates upon 30 days' advance written notice to NCPA. If the Parties cannot agree on revised rates, NCPA may terminate the Agreement.

Pricing for services to be performed at NCPA Member or SCPPA locations will be quoted at the time services are requested.

\*\*NOTE: As a public agency, NCPA shall not reimburse Consultant for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

# **EXHIBIT C**

# CERTIFICATION

# Affidavit of Compliance for Contractors

l, \_\_\_\_\_

(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

> Irani Engineering, Inc. (Company name)

for contract work at:

# LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this day of , 20 .

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.



# Commission Staff Report – DRAFT

# COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** Advanced Chemical Transport, Inc. dba ACTEnviro – Five Year Multi-Task General Services Agreement for Waste Removal Services; Applicable to the following: All Northern California Power Agency (NCPA) Facilities

# AGENDA CATEGORY: Consent

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	If other, please describe:
Department:	Combustion Turbines	

IMPACTED MEMBERS:				
All Members	$\boxtimes$	City of Lodi	City of Shasta Lake	
Alameda Municipal Power		City of Lompoc	City of Ukiah	
San Francisco Bay Area Rapid Transit		City of Palo Alto	Plumas-Sierra REC	
City of Biggs		City of Redding	Port of Oakland	
City of Gridley		City of Roseville	Truckee Donner PUD	
City of Healdsburg		City of Santa Clara	Other	
		If other, please specify		

#### **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Advanced Chemical Transport, Inc. dba ACTEnviro for waste removal services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$3,000,000 over five years, for use at any facilities owned and/or operated by NCPA.

# BACKGROUND:

Various waste removal services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA. NCPA has utilized this vendor in the past, and has a good working relationship with this vendor. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. NCPA has agreements in place for similar services with MP Environmental and Ponder Environmental.

#### FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed \$3,000,000 over five years. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

#### **SELECTION PROCESS:**

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from qualified providers as required. Bids are awarded to the vendor providing the best overall value to NCPA. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

#### **ENVIRONMENTAL ANALYSIS:**

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

#### COMMITTEE REVIEW:

Pending Committee review and approval.

AFTER FACILTIES APPROVAL: On January 3, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On January 8, 2024 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

January 18, 2024 Page 3

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 24-XX
- Multi-Task General Services Agreement with Advanced Chemical Transport, Inc. dba ACTEnviro

#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK GENERAL SERVICES AGREEMENT WITH ADVANCED CHEMICAL TRANSPORT, INC. DBA ACTENVIRO

#### (reference Staff Report XXX:24)

WHEREAS, various waste removal services are required from time to time for the operation and maintenance of facilities owned and/or operated by the Northern California Power Agency (NCPA); and

WHEREAS, Advanced Chemical Transport, Inc. dba ACTEnviro is a provider of these services; and

WHEREAS, the NCPA Commission has reviewed the Multi-Task General Services Agreement with Advanced Chemical Transport, Inc. dba ACTEnviro to provide such services as needed at any facilities owned and/or operated by NCPA; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into said Multi-Task General Services Agreement, with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$3,000,000 over five years, for use at any facilities owned and/or operated by NCPA.

PASSED, ADOPTED and APPROVED this _	day of	, 2024 by the following vote
on roll call:	·	

	<u>Vote</u>	<b>Abstained</b>	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR ATTEST:

CARRIE POLLO ASSISTANT SECRETARY



#### MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND ADVANCED CHEMICAL TRANSPORT, INC. DBA ACTENVIRO

This Multi-Task General Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Advanced Chemical Transport, Inc. dba ACTEnviro, a corporation, with its office located at 967 Mabury Road, San Jose, CA 95133 ("Contractor") (together sometimes referred to as the "Parties") as of \_\_\_\_\_\_, 2024 ("Effective Date") in Roseville, California.

**Section 1. SCOPE OF WORK**. Subject to the terms and conditions set forth in this Agreement, Contractor is willing to provide to Agency the range of services and/or goods described in the Scope of Work attached hereto as Exhibit A and incorporated herein ("Work").

- **1.1** <u>**Term of Agreement.**</u> The term of this Agreement shall begin on the Effective Date and shall end when Contractor completes the Work, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.
- **1.2** <u>Standard of Performance.</u> Contractor shall perform the Work in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged and for which Contractor is providing the Work. Contractor represents that it is licensed, qualified and experienced to provide the Work set forth herein.
- **1.3** <u>Assignment of Personnel.</u> Contractor shall assign only competent personnel to perform the Work. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Contractor shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- **1.4** <u>Work Provided.</u> Work provided under this Agreement by Contractor may include Work directly to the Agency.
- **1.5** <u>**Request for Work to be Performed.</u>** At such time that Agency determines to have Contractor perform Work under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific Work to be performed ("Requested Work"), may include a not-to-exceed cap on monetary cap on Requested Work and all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Work shall be completed. Contractor shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Contractor chooses not to perform the Requested Work. If Contractor agrees to perform the Requested Work, begins to perform the Requested Work, or does not respond within the seven day period specified, then Contractor will have agreed to perform the Requested Work on the terms set forth in the Purchase Order, this Agreement and its Exhibits.</u>
<u>Section 2.</u> <u>COMPENSATION.</u> Agency hereby agrees to pay Contractor an amount NOT TO EXCEED THREE MILLION dollars (\$3,000,000.00) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

- **2.1** <u>Invoices.</u> Contractor shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:
  - The beginning and ending dates of the billing period;
  - Work performed;
  - The Purchase Order number authorizing the Requested Work;
  - At Agency's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction;
  - At Agency's option, the total number of hours of work performed under the Agreement by Contractor and each employee, agent, and subcontractor of Contractor performing work hereunder.

Invoices shall be sent to:

Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Attn: Accounts Payable <u>AcctsPayable@ncpa.com</u>

- **2.2** <u>Monthly Payment.</u> Agency shall make monthly payments, based on invoices received, for Work satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Contractor.
- **2.3 <u>Payment of Taxes.</u>** Contractor is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.
- **2.4** <u>Authorization to Perform Work.</u> The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.
- **2.5** <u>**Timing for Submittal of Final Invoice.**</u> Contractor shall have ninety (90) days after completion of the Requested Work to submit its final invoice for the Requested Work. In the event Contractor fails to submit an invoice to Agency for

any amounts due within the ninety (90) day period, Contractor is deemed to have waived its right to collect its final payment for the Requested Work from Agency.

**Section 3. FACILITIES AND EQUIPMENT.** Except as set forth herein, Contractor shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Work.

**Section 4. INSURANCE REQUIREMENTS.** Before beginning any Work under this Agreement, Contractor, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

**4.1** <u>Workers' Compensation.</u> If Contractor employs any person, Contractor shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Contractor with limits of not less than one million dollars (\$1,000,000.00) per accident.

# 4.2 <u>Commercial General and Automobile Liability Insurance.</u>

- **4.2.1** <u>Commercial General Insurance</u>. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- **4.2.2** <u>Automobile Liability</u>. Contractor shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Contractor, on or off Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.
- **4.2.3** <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.
- 4.3 **Professional Liability Insurance.** Not Applicable.
- **4.4 Pollution Insurance.** Contractor shall obtain and maintain Contractors' Pollution Liability Insurance of not less than two million dollars (\$2,000,000) for any one

occurrence and not less than four million dollars (\$4,000,000) aggregate. Any deductible or self-insured retention shall not exceed two hundred fifty thousand dollars (\$250,000.00) per claim. Such insurance shall be on "an occurrence" basis. In addition, Contractor shall ensure that such insurance complies with any applicable requirements of the California Department of Toxic Substances Control and California regulations relating to the transport of hazardous materials (Health & Safety Code sections 25160 *et seq.*).

"Hazardous Materials" means any toxic or hazardous substance, hazardous material, dangerous or hazardous waste, dangerous good, radioactive material, petroleum or petroleum-derived products or by-products, or any other chemical, substance, material or emission, that is regulated, listed, or controlled pursuant to any national, state, or local law, statute, ordinance, directive, regulation, or other legal requirement of the United States.

# 4.5 <u>All Policies Requirements.</u>

- **4.5.1** <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2 and in Section 4.4, if applicable, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
- **4.5.2** <u>Notice of Reduction in or Cancellation of Coverage.</u> Contractor shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
- **4.5.3** <u>Higher Limits.</u> If Contractor maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Contractor.
- 4.5.4 Additional Certificates and Endorsements. Not Applicable.
- **4.5.5** <u>Waiver of Subrogation.</u> Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Contractor, its employees, agents and subcontractors.
- **4.6** <u>Contractor's Obligation.</u> Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Work are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Contractor shall also ensure that all workers involved in the

provision of Work are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

# Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

- **5.1** <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Contractor acknowledges and agrees to the provisions of this section and that it is a material element of consideration.
- **5.2** <u>Scope.</u> Contractor shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency, and its officials, commissioners, officers, employees, agents and volunteers from and against all losses, liabilities, claims, demands, suits, actions, damages, expenses, penalties, fines, costs (including without limitation costs and fees of litigation), judgments and causes of action of every nature arising out of or in connection with any acts or omissions by Contractor, its officers, officials, agents, and employees, except as caused by the sole or gross negligence of Agency. Notwithstanding, should this Agreement be construed as a construction agreement under Civil Code section 2783, then the exception referenced above shall also be for the active negligence of Agency.
- 5.3 Transfer of Title. If Contractor's Work involves its transporting hazardous materials, Contractor shall be deemed to be in exclusive possession and control of such materials and shall be responsible for any damages or injury caused thereby, including without limitation any spills, leaks, discharges or releases of such materials, until Agency accepts delivery at its Site. For the purposes of this Agreement, such acceptance shall occur after Contractor or its agents complete transfer of such materials into appropriate containers, machinery, storage tanks or other storage apparatus identified by NCPA. In the event a spill, leak, discharge or release requires notification to a federal, state or local regulatory agency, Contractor shall be responsible for all such notifications. Should Contractor be required to remedy or remove such materials as a result of a leak, spill, release or discharge of such materials into the environment at Agency's Site or elsewhere, Contractor agrees to remediate, remove or cleanup Agency's Site to a level sufficient to receive a "No Further Action Required" or "Closure Letter" from the appropriate regulatory authority.

# Section 6. STATUS OF CONTRACTOR.

6.1 <u>Independent Contractor.</u> Contractor is an independent contractor and not an employee of Agency. Agency shall have the right to control Contractor only insofar as the results of Contractor's Work and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Contractor accomplishes Work rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law,

or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contribution to be paid by Agency for employer contributions and/or employee contributions for PERS benefits.

Contractor shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Contractor and Agency acknowledge and agree that compensation paid by Agency to Contractor under this Agreement is based upon Contractor's estimated costs of providing the Work, including salaries and benefits of employees, agents and subcontractors of Contractor.

Contractor shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Contractor's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Contractor agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Contractor shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Contractor.

- **6.2** <u>Contractor Not Agent.</u> Except as Agency may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- **6.3 Assignment and Subcontracting.** This Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Contractor. Contractor may not assign this Agreement or any interest therein without the prior written approval of the Agency. Contractor shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Contractor shall supervise all work subcontracted by Contractor in performing the Work and shall be responsible for all work performed by a subcontractor as if Contractor itself had performed such work. The subcontracting of any work to subcontractors

shall not relieve Contractor from any of its obligations under this Agreement with respect to the Work and Contractor is obligated to ensure that any and all subcontractors performing any Work shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.

- 6.4 <u>Certification as to California Energy Commission.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit C.
- 6.5 <u>Certification as to California Energy Commission Regarding Hazardous</u> <u>Materials Transport Vendors.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit D.
- 6.6 <u>Maintenance Labor Agreement.</u> If the Work is subject to the terms of one or more Maintenance Labor Agreements, which are applicable only to certain types of construction, repair and/or maintenance projects, then Contractor shall execute Exhibit E and/or similar documentation as to compliance.

# Section 7. LEGAL REQUIREMENTS.

- **7.1 <u>Governing Law.</u>** The laws of the State of California shall govern this Agreement.
- **7.2** <u>Compliance with Applicable Laws.</u> Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- **7.3** <u>Licenses and Permits.</u> Contractor represents and warrants to Agency that Contractor and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.
- **7.4** <u>Monitoring by DIR.</u> The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- **7.5** <u>**Registration with DIR.**</u> During the term of this Agreement, Contractor warrants that it is registered with the Department of Industrial Relations and qualified to perform Work consistent with Labor Code section 1725.5.
- **7.6** <u>**Prevailing Wage Rates.**</u> In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work as provided in the California Labor Code must be paid to all workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed; the Agency has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which

the Work is to be performed for each craft, classification or type of worker needed to perform the project; and copies of the prevailing rate of per diem wages are on file at the Agency and will be made available on request. Throughout the performance of the Work, Contractor must comply with all applicable laws and regulations that apply to wages earned in performance of the Work. Contractor assumes all responsibility for such payments and shall defend, indemnify and hold the Agency harmless from any and all claims made by the State of California, the Department of Industrial Relations, any subcontractor, any worker or any other third party with regard thereto.

Additionally, in accordance with the California Administrative Code, Title 8, Group 3, Article 2, Section 16000, Publication of Prevailing Wage Rates by Awarding Bodies, copies of the applicable determination of the Director can be found on the web at: http://www.dir.ca.gov/DLSR/PWD/ and may be reviewed at any time.

Contractor shall provide a certified copy of its payroll, on forms to be determined by the Agency and consistent with the Labor Code, within ten (10) days of the Contractor's receipt of Agency's written request therefor. Contractor's failure to timely comply with this provision may subject the Contractor to penalties pursuant to state law.

Contractor shall comply with applicable law, including Labor Code Sections 1774 and 1775. In accordance with Section 1775, Contractor shall forfeit as a penalty to Agency \$200.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for such work or craft in which such worker is employed for any Work done under the Agreement by Contractor or by any subcontractor under Contractor in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 *et seq*. In addition to the penalty and pursuant to Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

#### Section 8. TERMINATION AND MODIFICATION.

**8.1** <u>**Termination.**</u> Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Contractor.

In the event of termination, Contractor shall be entitled to compensation for Work satisfactorily completed as of the effective date of termination; Agency, however, may condition payment of such compensation upon Contractor delivering to Agency any or all records or documents (as referenced in Section 9.1 hereof).

- **8.2** <u>Amendments.</u> The Parties may amend this Agreement only by a writing signed by both of the Parties.
- **8.3** <u>Survival.</u> All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.

- **8.4** Options upon Breach by Contractor. If Contractor materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
  - **8.4.1** Immediately terminate the Agreement;
  - **8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Contractor pursuant to this Agreement;
  - **8.4.3** Retain a different Contractor to complete the Work not finished by Contractor; and/or
  - **8.4.4** Charge Contractor the difference between the costs to complete the Work that is unfinished at the time of breach and the amount that Agency would have paid Contractor pursuant hereto if Contractor had completed the Work.

# Section 9. KEEPING AND STATUS OF RECORDS.

- **9.1** Records Created as Part of Contractor's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.
- **9.2** <u>Contractor's Books and Records.</u> Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.
- **9.3** Inspection and Audit of Records. Any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.

# 9.4 Confidential Information and Disclosure.

- **9.4.1** <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as Confidential Information in accordance with this section.
- **9.4.2 Non-Disclosure of Confidential Information**. During the term of this Agreement, either party may disclose (the "Disclosing Party") Confidential Information to the other party (the "Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- **9.4.3** <u>Permitted Disclosure.</u> Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
  - **9.4.3.1** Disclosure to employees, agents, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.
  - **9.4.3.2** Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and
  - **9.4.3.3** Disclosure by Agency in response to a request pursuant to the California Public Records Act.
- **9.4.4** <u>Handling of Confidential Information</u>. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are

necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

# Section 10. PROJECT SITE.

- **10.1** <u>Operations at the Project Site.</u> Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish, stemming from or relating to Contractor's Work.
- 10.2 Contractor's Equipment, Tools, Supplies and Materials. Contractor shall be solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work, whether owned, leased or rented. Agency will not be responsible for any such equipment, supplies or materials which may be lost, stolen or damaged or for any additional rental charges for such. Equipment, tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to have been abandoned by the Contractor. Any transportation furnished by Agency shall be solely as an accommodation and Agency shall have no liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be new and in good condition.
- **10.3** <u>Use of Agency Equipment.</u> Contractor shall assume the risk and is solely responsible for its use of any equipment owned and property provided by Agency for the performance of Work.

# Section 11. WARRANTY.

- **11.1** <u>Nature of Work.</u> In addition to any and all warranties provided or implied by law or public policy, Contractor warrants that all Work shall be free from defects in design and workmanship, and that Contractor shall perform all Work in accordance with applicable federal, state, and local laws, rules and regulations including engineering, construction and other codes and standards and prudent electrical utility standards, and in accordance with the terms of this Agreement.
- **11.2** <u>Deficiencies in Work.</u> In addition to all other rights and remedies which Agency may have, Agency shall have the right to require, and Contractor shall be obligated at its own expense to perform, all further Work which may be required to correct any deficiencies which result from Contractor's failure to perform any

Work in accordance with the standards required by this Agreement. If during the term of this Agreement or the one (1) year period following completion of the Work, any equipment, supplies or other materials or Work used or provided by Contractor under this Agreement fails due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable written notice from Agency, replace or repair the same to Agency's satisfaction.

**11.3** <u>Assignment of Warranties.</u> Contractor hereby assigns to Agency all additional warranties, extended warranties, or benefits like warranties, such as insurance, provided by or reasonably obtainable from suppliers of equipment and material used in the Work.

<u>Section 12.</u> <u>HEALTH AND SAFETY PROGRAMS.</u> The Contractor shall establish, maintain, and enforce safe work practices, and implement an accident/incident prevention program intended to ensure safe and healthful operations under their direction. The program shall include all requisite components of such a program under Federal, State and local regulations and shall comply with all site programs established by Agency.

- **12.1** Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.
- **12.2** Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.
- **12.3** Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
- **12.4** Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.
- **12.5** Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of all written accident reports, and coordinate with Agency if further investigation is requested.
- **12.6** Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of

exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.

- **12.7** Contractor shall develop a plan to properly handle and dispose of any hazardous wastes, if any, Contractor generates in performing the Work.
- **12.8** Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.
- **12.9** Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials shall include diesel fuel used for trucks owned or leased by the Contractor.

# Section 13. MISCELLANEOUS PROVISIONS.

- **13.1** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **13.2** <u>Venue.</u> In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- **13.3** <u>Severability.</u> If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- **13.4** <u>No Implied Waiver of Breach.</u> The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- **13.5** <u>Successors and Assigns.</u> The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- **13.6** <u>Conflict of Interest.</u> Contractor may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Contractor shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* 

- **13.7** <u>Contract Administrator.</u> This Agreement shall be administered by the Assistant General Manager, Generation Services, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- **13.8** <u>Notices.</u> Any written notice to Contractor shall be sent to:

Advanced Chemical Transport, Inc. dba ACTEnviro Attention: Rob Boal 6940 Tremont Road Dixon, CA 95620

Any written notice to Agency shall be sent to:

Randy S. Howard General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane E. Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

- **13.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- **13.10** <u>Integration; Incorporation.</u> This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- **13.11** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Contractor agree to resolve the dispute in accordance with the following:
  - **13.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;

- **13.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
- **13.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
- **13.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
- **13.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
- **13.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq*.
- **13.12** <u>Controlling Provisions</u>. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Contractor's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Contractor's Proposal, the Purchase Order shall control.
- **13.13** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- **13.14** <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
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**13.15** <u>No Third Party Beneficiaries.</u> This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

ADVANCED CHEMICAL TRANSPORT, INC. DBA ACTENVIRO

Date\_\_\_\_\_

Date\_\_\_\_\_

RANDY S. HOWARD, General Manager MARIANA SABICH, Director of Sales

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

# **EXHIBIT A**

#### SCOPE OF WORK

Advanced Chemical Transport, Inc. dba ACTEnviro ("Contractor") shall provide waste cleanup services related to project support and plant operations as requested by the Northern California Power Agency ("Agency") at any Facilities owned or operated by Agency.

Services to include, but not be limited to the following:

- Waste Cleanup Services
- Waste Transporter Services (used oil, oily absorbents, equipment pump outs, universal waste, e-waste, etc.)
- Other Services as required

NCPA CT Facilities specific services to include, but not be limited to the following:

(1) Provide filter cake bins and cake disposal services at LEC site, including, but not limited to providing the following:

- a) 24-hour turnaround for waste bin(s) drop-off and pickup.
- b) Waste cake profiling quarterly for bins prior to disposal until such profiling is no longer required by the corresponding landfill or NCPA
- c) Classification of all materials where applicable
- d) Supply 2x20 yard lined bins on site at all times for disposal of Filter Cake.
- e) Remove and replace filter cake bins on a regular schedule.
- f) Transport bins to final disposal facilities.
- g) Provide all paperwork, including profiling, labeling and manifesting in accordance with DOT regulations (49 CFR).
- h) Sample periodically and get analytical results from lab if needed

(2) Act as the Emergency Responder at the Lodi Energy Center ("LEC'), STIG, Lodi CT1, and Alameda CT1 sites, including providing all labor, equipment and materials to perform cleanup of hazardous and non-hazardous material and substance spill incident and transport and disposal;

(3) Provide Hazardous & Non-Hazardous Waste transporter services for LEC, STIG, Lodi CT1, and Alameda CT1 sites to state permitted treatment, storage, or disposal facilities (TSFD). Services will include but not be limited to the manifesting and transportation of used oil, oily absorbents, HRSG debris, cooling tower sludge, OWS pump-outs, and universal waste.

# EXHIBIT B

#### COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all work, including hourly fees and expenses, shall not exceed the amount set forth in Section 2 hereof. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

CT Facilities Specific Rates:

- (1) Filter Cake Bins and Disposal Service Rates See Following Rate Sheets
- (2) Emergency Response Rates See Following Rate Sheets
- (3) Miscellaneous Waste Removal Rates See Following Rate Sheets

#### 1.0 FILTER CAKE BINS AND DISPOSAL SERVICE RATES

# Transportation:

Bin drop off only	\$ 450.00
Removal, replacement, and disposal of bin during business hours	
Business hours: 6:00AM - 3:00PM Mon-Fri	\$ 650.00
After hours bin removal, replacement, and disposal	
After hours: After 3:00PM Mon-Fri, Weekends, Holidays	\$ 850.00
Fuel/Energy Surcharge	\$ 15%
Additional Costs (include list and cost breakdown)	\$N/A
Disposal: Non-Haz Filter Cake for Landfill	
2 x 20 yd. bins / 10 Yd/ton min/per bin	\$ 35.00 per Yd
Energy & Security/County Fees	\$ 15%
Additional Costs (include list and cost breakdown)	\$ N/A
Equipment & Materials:	
4 x Bin Rental per month	\$ 1,140.00
Daily rental of additional bins	\$ 14.00
Bin Liners (Straw bales)	\$ 35.00
Manifesting/profiling, scheduling etc.	\$ Included
Additional Costs (include list and cost breakdown)	\$ N/A

#### 2.0 EMERGENCY RESPONSE SERVICE RATES

Labor (i	include cost sheet of rates)
PPE	include cost sheet of rates)
Equipment	include cost sheet of rates)
Material (i	include cost sheet of rates)
Disposal:	-
Non-Hazardous Waste Liquids	\$ 0.85 per galloon
Non-RCRA Hazardous Waste Liquids	\$ 1.45 per gallon
RCRA Hazardous Waste Liquid	\$ 2.45 per gallon
55 Gal. Drum Non-Hazardous Waste Liquid	\$ 195.00
55 Gal. Drum Non-Hazardous Waste Sludge	\$ 195.00
55 Gal. Drum RCRA Hazardous Waste Liquid	\$ 445.00
Bulk Non-Hazardous Solids (soil & contaminated debris)	\$ 95.00 per Ton
Bulk Non-RCRA Hazardous Waste Solids (soil & contaminated debris)	\$ 145.00 per Ton
Bulk RCRA Hazardous Waste Solids (soil & contaminated debris)	\$ 265.00 per Ton
55 Gal. Drum Non-Hazardous Waste Solids (soil & contaminated debris)	\$ 195.00
55 Gal. Drum Non-RCRA Hazardous Waste Solids (soil & contaminated d	lebris) \$ 275.00
55 Gal. Drum RCRA Hazardous Waste Solids (soil & contaminated debris	) \$445.00

#### 3.0 MISCELLANEOUS WASTE REMOVAL / DISPOSAL RATES

Labor (	(include co	st sheet of rates)
PPE	(include co	st sheet of rates)
Equipment	(include co	st sheet of rates)
Material	(include co	st sheet of rates)
Transportation and Disposal:		
Used Oil (pumped out)	\$	95.00 Flat
Used Oil Filters	\$	125.00
Waste Oily Debris 55 Gallon Drums (absorbent sweep, pads, boom, socks	s, etc.) \$	275.00
Oily Sludge 55 Gallon Drums	\$	275.00
Used Antifreeze "A/F" {pumped out)	\$	1.85 Gal
Waste Aerosols		
55 Gallon Drums	\$	325.00
30 Gallon Drums	\$	265.00
Waste Paint Related Material, Mixed Fuels, RCRA Concrete Cure	\$	385.00
(Oil Based Paints, thinner, Flammable Liquid, etc)		
55 Gallon Drums	\$	385.00
55 Gallon Drums (loose-pack =1-5 gallon buckets)	\$	395.00
Cu. Yd. boxes "holds 4 x 55gal" (loose-pack = 1-5 gallon buckets)	) \$_	895.00
Latex Paint & Non-RCRA Concrete Sprays & Cures 55 Gallon Drums	\$	275.00
Ion exchange resin	\$	275.00
Empty Haz Drums	\$ <u></u>	30.00
Universal Waste Fluorescent Lamps		
4 ft. box	\$	0.25 per ft.
8 ft. box	\$ <u></u>	0.25 per ft.
Non-Hazardous Water and Solids	\$	0.98 per gall
Non-RCRA Liquid and Solids	\$	1.68 per galk
Transportation	\$ <u>1</u>	37.50 per hr.

#### 4.0 HYDRO-JETTER SERVICE RATES

Labor
PPE
Equipment
Material

Fuel/Energy Surcharge

#### 5.0 ANNUAL COST PERCENTAGE INCREASE TABLE

Enter the annual percentage increase in the table below.

YEAR 2	YEAR 3	YEAR 4	YEAR 5
3 %	3 %	4 %	4 %

Multi-Task General Services Agreement between Northern California Power Agency and Advanced Chemical Transport, Inc. dba ACTEnviro. Rev'd 7/9/2019

(include cost sheet of rates) (include cost sheet of rates) (include cost sheet of rates) (include cost sheet of rates)

\$ 15%

# Dixon Branch - Emergency Response Rate Sheet Effective May 23, 2019 to May 22, 2024 and amended 7/21/22

NOTE: This ER Rate Schedule (Exhibit B) is for <u>NCPA CA</u> and is reflective of pricing for the Dixon Branch.

Labor	Weekdays (6:00 am to 3:00 pm); after 3:00 pm, weekend rates apply	Weekends	Holidays & Double Time (after 12 hr.'s per day) double time- -rates apply
Project Manager Technicians Administration	\$105.00/hr. \$95.00/hr. \$75.00/hr.	\$126.00/hr. \$114.00/hr. \$85.00/hr.	\$136.00/hr. \$123.00/hr. \$ 92.50/hr.
Personal Protection Levels LEVEL B (respiratory protection extra) 1. Maximum protection disposal 2. Intermediate protection dispo 3. Acid splash suit, heavy duty 4. Acid splash suit, light duty 5. Limited use, light weight suit	ble suit sable suit	\$ \$ \$ \$ \$	125.00/man/day 110.00/man/day 75.00/man/day 45.00/man/day 35.00/man/day
LEVEL C (respiratory protection extra) 1. Maximum protection disposal 2. Intermediate protection dispo 3. Acid splash suit, heavy duty 4. Acid splash suit, light duty 5. Limited use, light weight suit LEVEL D	ble suit sable suit	\$ \$ \$ \$ \$ \$ \$	105.00/man/day 100.00/man/day 95.00/man/day 85.00/man/day 65.00/man/day 35.00/man/day
OTHER PROTECTIVE CLOTHING 1. Flame resistant / Nomex cover 2. Flame resistant/ Nomex hood 3. Latex gloves 4. Light duty gloves 5. Heavy duty gloves 6. Specialty gloves 7. Leather gloves 8. Cotton gloves 9. Light duty shoe covers 10. Heavy duty shoe covers 11. Chemical resistant boots 12. Hip boots 13. Waders	eralls 1	\$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$	135.00ea 122.00ea 1.50/pair 5.50/pair 50.00/pair 50.00/pair 4.00/pair 12.00/pair 18.00/pair 18.00/pair 80.00/pair 110.00/pair

#### RESPIRATORY EQUIPMENT

- 1. Full face respirator
- 2. Half Face respirator
- 3. Respirator cartridges (HEPA)
- 4. Respirator cartridges (standard)
- 5. Half face disposable respirator

# Monitoring/Sampling Equipment

# Safety Equipment

Communication systems Decon pool Decon trailer Face shield Fire Extinguisher First aid kit Fluorescent safety vest Goggles GFI's Harnesses Lock out/ tag out tags Top entry extraction device (tri-pod & winch) \$ 85.00/man/day \$ 65.00/man/day \$ 30.00/set \$ 25.00/set \$ 45.00/man/day \$ 80.00/day

\$ 125.00/day \$ 30.00/day \$ 20.00each

5.00each \$ 125.00/day

15.00each

\$

\$

\$ \$ \$	75.00each 150.00/day 395.00/each
\$	65.00/day
\$	40.00/day
\$	500.00/day
\$	5.00ea
\$	15.00/day
\$	45.00/day
\$	10.00ea
\$	6.00ea
\$	10.00/day
\$	87.00each
\$	5.00each
\$	200.00/day

#### Equipment- Services Emergency Response Call Out Fee "Minor" 1 truck w/operator \$ 250.00 Emergency Response Call Out Fee "Regular" > 1 truck w/operator \$ 750.00 Emergency Response Call Out Fee "Major" need crew w/numerous trucks \$1,500.00 Emergency Response Trailer "Major" \$ 500.00/day Equipment- Transportation Portal to Portal {A 15% Energy surcharge will be added to all transportation and Equipment} One ton Truck with Lift Gate \$ 50.00/hour Three ton Flat Bed \$ 82.50/hour Five ton Box Truck \$ 85.00/hour Roper Pump Trucks \$ 95.00/hour Water Truck (5300 gallon) W/operator @ (PW Rate) \$ 145.00/hour Vacuum Trucks W/ operators @ (PW Rate) 70 bbl-130 bbl-150 bbl \$ 145.00/hour Sludge & Stainless Vacuum Trucks \$ 165.00/hour ">8 hr.'s @ x 1.2 - > 12 hr.'s and weekends x 1.3" Vacuum Tank Hoses (20-30 foot extensions) 20.00/day/each \$ Air Mover (Guzzler) – W/operator @ (PW Rate) \$ 285.00/hour Jetter \$ 125.00/hour Bin Trucks W/operators @ (PW Rate) Bob-tail (holds- I bin) \$ 140.00/hour Doubles (holds 2 bins) \$ 140.00/hour Rocket Launchers \$ 140.00/hour ">8 hr.'s @ x 1.2 - > 12 hr.'s and weekends x 1.3" Bin ramp Rental 10 yd. & 20 yd. \$ 50.00/per day ea. Bin Rental (10, 20, 30, 40 yard) \$ 15.00/day Dewatering Bin Rental \$ 75.00/day Vacuum Bin Rental \$ 65.00/day Bin/ Truck Liners \$ 45.00each Quoted as needed All equipment below does not include mobilization or de-mobilization Portable Tanks (2,000 gal., 6,500 gal., 21,000gal.) Quote as needed 245/235/225/215 Excavator - crawler Quote as needed Long Reach - 46'/ 56' Quote as needed Hydraulic thumbs Quote as needed Hydraulic breakers Quote as needed Concrete pulverizer Quote as needed Excavator – rubber tire Quote as needed 416 Backhoe \$ 950.00/day 936 Front-end loader ( 3-yard bucket ) \$1300.00/day "Various size buckets available for extra fee" Front-end loaders Quote as needed Dozer – crawler Quote as needed Forklifts and Telehandler 1. 5000 lb. \$ 600.00/day 2. 15,000 lb. \$ 750.00/day larger Quote as needed Small/Medium Telehandler/Grade-all \$950.00/per day

Additional Equipment Air Compressors 1. 175-375 CFM	\$ 375.00/day
Small Air compressor	\$ 45.00/day
Generators 1. 1-5 kw 2. 6–10 kw	\$ 160.00/day \$ 200.00/day
Lights - portable 1. Twin Flood 8' 500W 2. Light Tower 1000W	\$ 35.00/day-each \$ 195.00/day-each
Pumps 1. Centrifical self priming 1.5hp 2. Trash Pump 2" cast iron 5hp 3. Utility Pump 1" aluminum 2hp 4. Submersible utility – manual 110v 5. Sump pump 6. Diaphragm 1" 7. Diaphragm 2" 6. Economy manual drum pump	\$ 55.00/day \$ 100.00/day \$ 45.00/day \$ 38.00/day \$ 45.00/day \$ 85.00/day \$ 170.00/day \$ 29.00/day
Power Vactor Drummer (into 55 gallon drum) " 3 cylinder diesel powered"	\$ 375.00/day
Drum Vactor (into 55 gallon drum) <i>"Electric Unit"</i> Wet/Dry Vacuum (15 gallon) Wet/Dry Vacuum (5 gallon)	\$ 100.00/day \$ 30.00/day \$ 20.00/day
Industrial (Hot Water) Pressure Washer Pressure Washer (cold) Negative Air Machine	\$ 375.00/day \$ 150.00/day \$ 85.00/day
Hydro blaster (5,000 Psi) Hydro blaster (10,000 Psi) Hydro blaster Equipment	\$ 95.00/hour Quote as needed
<ul> <li>A. Mini Lance (25' length, stiff)</li> <li>B. Spin Jet</li> <li>C. Shell Cleaner</li> <li>D. MGV Valve (multi gun valve)</li> <li>E. Interior Cleaning Equipment</li> <li>F. Hydro blast hose (3/8" and ½" x 50')</li> <li>G. Scrubber Unit for fuel tank cleaning</li> </ul>	\$ 37.00/hour \$ 40.00/hour \$ 21.00/hour \$ 16.00/hour \$ 10.00/day \$1,500.00/day

Other Equipment		
30 foot Extension Ladder	\$	45.00/day
Safety Cones Each	\$	2.00/day
Blower (intrinsically safe – coppus style)	\$	145.00/day
Chain saw	\$	55.00/day
Chop saw	\$	145.00/day
Cutting Torch and Rig	\$	290.00/day
Drum de-header	\$	20.00/day
Drum dolly	\$	25.00/day
Electric cords (each)	\$	6.00/day
Hand Tools (each)	\$	3.00/day
Hand truck	\$	10.00/day
Hydraulic jack – 20 ton	\$	20.00/day
Non-sparking tools	\$ (	case by case
Small Power Tools	\$	45.00/day
Welder Arc/Wire Feed	\$	190.00/day
Wheelbarrow	\$	10.00/day

# Materials

Absorbent materials	
<ol> <li>Oil sorbent (3M or equivalent)</li> </ol>	
A. HP 38" x 144' roll	\$ 150.00/roll
B. P 19" x 144' rolls	\$ 112.50/roll
C. P 21" x 100' sweeps	\$ 112.50each
D. HP 15" x 18" pads	\$ 75.00/case
E. HP 16" x 20" pads	\$ 95.00/case
F. P 8" x 10' sorbent booms	\$ 60.00each
G P 5" x 10' sorbent booms	\$ 50.00each
H. HP 4' mini boom	\$ 112.50/case
I. P 8' mini boom	\$ 112.50/case
J. P 12' mini boom	\$ 112.50/case
H. P 14" x 25" x 5" pillows (10 pillows per bag)	\$ 165.00/case
2. Granule absorbent	
A. Dri Zorb (multipurpose)	\$ 15.00/bag
B. Oil Dry (petroleum)	\$ 12.00/bag
C. Solid – A – Sorb (chemicals, PCB's)	\$ 15.00/bag
D. Vermiculite	\$ 35.00/bag
<ol><li>Universal sorbent (3M or equivalent)</li></ol>	-
A. 15" x 19" pad	\$ 95.00/bag
B. 15" x 150' roll	\$ 135.00/roll
C. 38" x 150' roll	\$ 225.00/roll
D. 4' mini boom	\$ 195.00/case
E. 8' mini boom	\$ 195.00/case
F. 12' mini boom	\$ 195.00/case
Acid Neutralizer	\$ 35.00/bag
Base Neutralizer	\$ 35.00/bag
Chlor-D-Tect Test	\$ 20.00each
Drums: A. 15gallon Polys	\$ 65.00each
B. 30 gallon Polys	\$ 75.00each
C. 55 gallon Polys – closed top	\$ 75.00each
D. 55 gallon Polys – open top	\$ 75.00each
E. 95 gallon Polys – overpacks	\$ 225.00each
F. 55 gallon 1A2 – Recycled: open top	\$ 75.00each
G. 55 gallon 1A1 – Recycled: closed top	\$ 75.00each
H. 85 gallon Steel – overpack	\$ 225.00each
I. 5 gallon Buckets	\$ 25.00each
J. 30-55 gallon fiber	\$ 45.00each
K. Drum Liners ( roll )	\$ 145.00/roll
L. Drum Liners	\$ 4.00each
M. Drum Thieves	\$ 5.00each

# Supplies

Cement (50lb bag) Deionized Water Floor Dry Concrete Degreaser Soap/Simple Green Cleanser Soda Ash Solidification material (Sure Pak 25lb bag) Sand Bags Barricade Tape Duct Tape Hazardous Waste Label Kits Manifests pH Strips Rags Sample bottles Visqueen 6 mil (20' x 100')

\$ 10.00each \$ 3.50/gal \$ 15.00/bag \$ 21.00/gal \$ 15.00/gal \$ 35.00 \$ 10.00/bag \$ 5.00/bag \$ 29.80/roll \$ 5.90/roll \$ 2.00each \$ 5.00each \$ 26.50/box \$ 50.00/box \$ 5.00ea \$ 187.00/roll

# Disposal <u>Bulk Liquids</u> Rates

#### Non-Hazardous Liquids

% Solids	Price/Per Gallon	Washout Fee
1-10%	\$ .98/gal	\$ 275.00
Each additional		
10% Solids	\$ .15/gal.	
Non-RCRA Hazardous w	vaste liquid	
% Solids	Price/Per Gallon	Washout Fee
0-10%	\$ 1.45/gal	\$ 395.00
Each additional	• · · · · · · · · · · · · ·	
10%	\$ .15/gal.	
RCRA Hazardous waste	Case by Case	
Disposal <u>Drummed Li</u>	<u>quids</u> Rates	
Non-Hazardous Liquids		
Liquids 55 gallon		\$ 145.00
Sludge 55 gallon		\$ 160.00
Non-RCRA Hazardous w	vaste liquid	
Liquids 55 gallon		\$ 255.00
Sludge 55 gallon		\$ 295.00
		φ 205.00
RCRA Hazardous waste	liquid	Case by Case

Non-Hazardous Solids Minimum 10 Yards/Ton	\$ 85.00/Yd./Ton
Non-RCRA Hazardous Waste Solids Minimum 10 Yards/Ton	\$ 145.00/Yd./Ton
<b>RCRA Hazardous Waste Solids</b> Minimum 10 Yards/Ton	\$ 265.00/Yd./Ton
Disposal <u>Drummed Solids</u> Rates	
Non-Hazardous Solids 55 gallon	\$ 165.00
Non-RCRA Hazardous waste Solids 55 gallon	\$ 275.00
RCRA Hazardous waste Solids	Case by Case

Disposal Bulk Solids Rates (Soil & contaminated debris) "includes all taxes and fees"

Pricing for services to be performed at other NCPA locations will be quoted at the time services are requested.

NOTE: As a public agency, NCPA shall not reimburse Contractor for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

# EXHIBIT C

# CERTIFICATION

# Affidavit of Compliance for Contractors

١,

(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

#### Advanced Chemical Transport, Inc. dba ACTEnviro

(Company name)

for contract work at:

#### LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20 \_\_\_\_\_.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

# EXHIBIT D

# CERTIFICATION

# Affidavit of Compliance for Hazardous Materials Transport Vendors

I, \_\_\_\_\_

(Name of person signing affidavit)(Title)

do hereby certify that the below-named company has prepared and implemented security plans in conformity with 49 CFR 172, subpart I and has conducted employee background investigations in conformity with 49 CFR 172.802(a), as the same may be amended from time to time,

Advanced Chemical Transport, Inc. dba ACTEnviro

(Company name)

for hazardous materials delivery to:

# LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_, 20 \_\_\_,

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

#### NOT APPLICABLE

#### EXHIBIT E

#### ATTACHMENT A [from MLA] AGREEMENT TO BE BOUND

#### MAINTENANCE LABOR AGREEMENT ATTACHMENT LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

- 1) It is an Employer as that term is defined in Section 1.4 of the Lodi Energy Center Project Maintenance Labor Agreement ("Agreement" solely for the purposes of this Exhibit E) because it has been, or will be, awarded a contract or subcontract to assign, award or subcontract Covered Work on the Project (as defined in Section 1.2 and 2.1 of the Agreement), or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.
- 2) In consideration of the award of such contract or subcontract, and in further consideration of the promises made in the Agreement and all attachments thereto (a copy of which was received and is hereby acknowledged), it accepts and agrees to be bound by the terms and condition of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- 3) If it performs Covered Work, it will be bound by the legally established trust agreements designated in local master collective bargaining agreements, and hereby authorizes the parties to such local trust agreements to appoint trustees and successor trustee to administer the trust funds, and hereby ratifies and accepts the trustees so appointed as if made by the undersigned.
- 4) It has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of the Agreement.
- 5) It will secure a duly executed Agreement to be Bound, in form identical to this documents, from any Employer(s) at any tier or tiers with which it contracts to assign, award, or subcontract Covered Work, or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.

DATED: \_\_\_\_\_ Name of Employer

(Authorized Officer & Title)

(Address)



# Commission Staff Report – DRAFT

# COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** Process Cooling International, Inc. dba Applied Process Cooling Corp. dba APCCO – Five Year Multi-Task General Services Agreement for Insulation Services; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

## AGENDA CATEGORY: Consent

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	If other, please describe:
Department:	Combustion Turbines	

IMPACTED MEMBERS:					
All Members		City of Lodi		City of Shasta Lake	
Alameda Municipal Power		City of Lompoc		City of Ukiah	
San Francisco Bay Area Rapid Transit		City of Palo Alto		Plumas-Sierra REC	
City of Biggs		City of Redding		Port of Oakland	
City of Gridley		City of Roseville		Truckee Donner PUD	
City of Healdsburg		City of Santa Clara		Other	
		If other, please specify			

#### **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Process Cooling International Inc. dba Applied Process Cooling Corp. dba APCCO for insulation services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$4,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members.

#### BACKGROUND:

Various insulation services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. NCPA has agreements in place for similar services with American Insulation & Scaffolding, Bayside Insulation & Construction, Farwest Insulation Contracting and Sunshine Metal Clad.

#### FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed \$4,000,000 over five years. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

# SELECTION PROCESS:

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from qualified providers as required. Bids are awarded to the vendor providing the best overall value to NCPA. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

#### **ENVIRONMENTAL ANALYSIS:**

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

#### COMMITTEE REVIEW:

Pending Committee review and approval.

AFTER FACILTIES APPROVAL: On January 3, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On January 8, 2024 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

January 18, 2024 Page 3

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 24-XX
- Multi-Task General Services Agreement with Process Cooling International, Inc. dba Applied Process Cooling Corp. dba APCCO

#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK GENERAL SERVICES AGREEMENT WITH PROCESS COOLING INTERNATIONAL INC. DBA APPLIED PROCESS COOLING CORP. DBA APCCO

#### (reference Staff Report XXX:24)

WHEREAS, various insulation services are required from time to time for the operation and maintenance of facilities owned and/or operated by the Northern California Power Agency (NCPA), NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, Process Cooling International Inc. dba Applied Process Cooling Corp. dba APCCO is a provider of these services; and

WHEREAS, the NCPA Commission has reviewed the Multi-Task General Services Agreement with Process Cooling International Inc. dba Applied Process Cooling Corp. dba APCCO to provide such services as needed at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into said Multi-Task General Services Agreement, with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$4,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

	PASSED, ADOPTED and APPROVED this _	day of	 , 2024 by the following	vote
on roll	call:			

	Vote	Abstained	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR

ATTEST:

CARRIE POLLO ASSISTANT SECRETARY



#### MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND PROCESS COOLING INTERNATIONAL, INC. DBA APPLIED PROCESS COOLING CORPORATION DBA APCCO

This Multi-Task General Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Process Cooling International, Inc. dba Applied Process Cooling Corporation dba APCCO, an S-corporation with its office located at 4812 Enterprise Way, Modesto, CA 95356 ("Contractor") (together sometimes referred to as the "Parties") as of \_\_\_\_\_\_, 2024 ("Effective Date") in Roseville, California.

**Section 1. SCOPE OF WORK**. Subject to the terms and conditions set forth in this Agreement, Contractor is willing to provide to Agency the range of services and/or goods described in the Scope of Work attached hereto as Exhibit A and incorporated herein ("Work").

- **1.1** <u>**Term of Agreement.**</u> The term of this Agreement shall begin on the Effective Date and shall end when Contractor completes the Work, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.
- **1.2** <u>Standard of Performance.</u> Contractor shall perform the Work in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged and for which Contractor is providing the Work. Contractor represents that it is licensed, qualified and experienced to provide the Work set forth herein.
- **1.3** <u>Assignment of Personnel.</u> Contractor shall assign only competent personnel to perform the Work. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Contractor shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- **1.4** <u>Work Provided.</u> Work provided under this Agreement by Contractor may include Work directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.
- **1.5** <u>**Request for Work to be Performed.</u>** At such time that Agency determines to have Contractor perform Work under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific Work to be performed ("Requested Work"), may include a not-to-exceed cap on monetary cap on Requested Work and all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Work shall be completed. Contractor shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Contractor chooses not to perform the Requested Work. If Contractor agrees to perform the Requested Work, begins to perform the Requested Work, or does</u>
not respond within the seven day period specified, then Contractor will have agreed to perform the Requested Work on the terms set forth in the Purchase Order, this Agreement and its Exhibits.

<u>Section 2.</u> <u>COMPENSATION.</u> Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** FOUR MILLION dollars (\$4,000,000.00) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

- **2.1** <u>**Invoices.**</u> Contractor shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:
  - The beginning and ending dates of the billing period;
  - Work performed;
  - The Purchase Order number authorizing the Requested Work;
  - At Agency's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction;
  - At Agency's option, the total number of hours of work performed under the Agreement by Contractor and each employee, agent, and subcontractor of Contractor performing work hereunder.

Invoices shall be sent to:

Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Attn: Accounts Payable <u>AcctsPayable@ncpa.com</u>

- **2.2** <u>Monthly Payment.</u> Agency shall make monthly payments, based on invoices received, for Work satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Contractor.
- **2.3 <u>Payment of Taxes.</u>** Contractor is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.
- **2.4** <u>Authorization to Perform Work.</u> The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

2.5 <u>Timing for Submittal of Final Invoice</u>. Contractor shall have ninety (90) days after completion of the Requested Work to submit its final invoice for the Requested Work. In the event Contractor fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Contractor is deemed to have waived its right to collect its final payment for the Requested Work from Agency.

**Section 3. FACILITIES AND EQUIPMENT.** Except as set forth herein, Contractor shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Work.

**Section 4. INSURANCE REQUIREMENTS.** Before beginning any Work under this Agreement, Contractor, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

**4.1** <u>Workers' Compensation.</u> If Contractor employs any person, Contractor shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Contractor with limits of not less than one million dollars (\$1,000,000.00) per accident.

## 4.2 <u>Commercial General and Automobile Liability Insurance.</u>

- **4.2.1** <u>Commercial General Insurance</u>. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- **4.2.2** <u>Automobile Liability</u>. Contractor shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Contractor, on or off Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.

- **4.2.3** <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.
- 4.3 **Professional Liability Insurance.** Not Applicable.
- 4.4 **Pollution Insurance.** Not Applicable.
- 4.5 <u>All Policies Requirements.</u>
  - **4.5.1** <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2 and in Section 4.4, if applicable, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
  - **4.5.2** <u>Notice of Reduction in or Cancellation of Coverage.</u> Contractor shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
  - **4.5.3** <u>**Higher Limits.**</u> If Contractor maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Contractor.
  - **4.5.4** <u>Additional Certificates and Endorsements.</u> If Contractor performs Work for Agency members, SCPPA and/or SCPPA members pursuant to this Agreement, Contractor shall provide the certificates of insurance and policy endorsements, as referenced in Section 4.5.1, naming the specific Agency member, SCPPA and/or SCPPA member for which the Work is to be performed.
  - **4.5.5** <u>Waiver of Subrogation.</u> Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Contractor, its employees, agents and subcontractors.
- **4.6** <u>Contractor's Obligation.</u> Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Work are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Contractor shall also ensure that all workers involved in the provision of Work are properly classified as employees, agents or independent

contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

#### Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

- **5.1** <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Contractor acknowledges and agrees to the provisions of this section and that it is a material element of consideration.
- **5.2** <u>Scope.</u> Contractor shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency, and its officials, commissioners, officers, employees, agents and volunteers from and against all losses, liabilities, claims, demands, suits, actions, damages, expenses, penalties, fines, costs (including without limitation costs and fees of litigation), judgments and causes of action of every nature arising out of or in connection with any acts or omissions by Contractor, its officers, officials, agents, and employees, except as caused by the sole or gross negligence of Agency. Notwithstanding, should this Agreement be construed as a construction agreement under Civil Code section 2783, then the exception referenced above shall also be for the active negligence of Agency.
- 5.3 <u>Transfer of Title.</u> Not Applicable.

## Section 6. STATUS OF CONTRACTOR.

6.1 Independent Contractor. Contractor is an independent contractor and not an employee of Agency. Agency shall have the right to control Contractor only insofar as the results of Contractor's Work and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Contractor accomplishes Work rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contributions for PERS benefits.

Contractor shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Contractor and Agency acknowledge and agree that compensation paid by Agency to Contractor under this Agreement is based upon Contractor's estimated costs of providing the Work, including salaries and benefits of employees, agents and subcontractors of Contractor.

Contractor shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Contractor's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Contractor agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Contractor shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Contractor.

- **6.2** <u>Contractor Not Agent.</u> Except as Agency may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- 6.3 Assignment and Subcontracting. This Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Contractor. Contractor may not assign this Agreement or any interest therein without the prior written approval of the Agency. Contractor shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Contractor shall supervise all work subcontracted by Contractor in performing the Work and shall be responsible for all work performed by a subcontractor as if Contractor itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Contractor from any of its obligations under this Agreement with respect to the Work and Contractor is obligated to ensure that any and all subcontractors performing any Work shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.
- 6.4 <u>Certification as to California Energy Commission.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit C.
- 6.5 <u>Certification as to California Energy Commission Regarding Hazardous</u> <u>Materials Transport Vendors.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit D.

6.6 <u>Maintenance Labor Agreement.</u> If the Work is subject to the terms of one or more Maintenance Labor Agreements, which are applicable only to certain types of construction, repair and/or maintenance projects, then Contractor shall execute Exhibit E and/or similar documentation as to compliance.

## Section 7. LEGAL REQUIREMENTS.

- **7.1 <u>Governing Law.</u>** The laws of the State of California shall govern this Agreement.
- **7.2** <u>Compliance with Applicable Laws.</u> Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- **7.3** <u>Licenses and Permits.</u> Contractor represents and warrants to Agency that Contractor and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.
- **7.4** <u>Monitoring by DIR.</u> The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- **7.5** <u>**Registration with DIR.**</u> During the term of this Agreement, Contractor warrants that it is registered with the Department of Industrial Relations and qualified to perform Work consistent with Labor Code section 1725.5.
- 7.6 Prevailing Wage Rates. In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work as provided in the California Labor Code must be paid to all workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed; the Agency has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the project; and copies of the prevailing rate of per diem wages are on file at the Agency and will be made available on request. Throughout the performance of the Work. Contractor must comply with all applicable laws and regulations that apply to wages earned in performance of the Work. Contractor assumes all responsibility for such payments and shall defend, indemnify and hold the Agency harmless from any and all claims made by the State of California, the Department of Industrial Relations, any subcontractor, any worker or any other third party with regard thereto.

Additionally, in accordance with the California Administrative Code, Title 8, Group 3, Article 2, Section 16000, Publication of Prevailing Wage Rates by Awarding

Bodies, copies of the applicable determination of the Director can be found on the web at: http://www.dir.ca.gov/DLSR/PWD/ and may be reviewed at any time.

Contractor shall provide a certified copy of its payroll, on forms to be determined by the Agency and consistent with the Labor Code, within ten (10) days of the Contractor's receipt of Agency's written request therefor. Contractor's failure to timely comply with this provision may subject the Contractor to penalties pursuant to state law.

Contractor shall comply with applicable law, including Labor Code Sections 1774 and 1775. In accordance with Section 1775, Contractor shall forfeit as a penalty to Agency \$200.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for such work or craft in which such worker is employed for any Work done under the Agreement by Contractor or by any subcontractor under Contractor in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 *et seq.* In addition to the penalty and pursuant to Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

## Section 8. TERMINATION AND MODIFICATION.

**8.1** <u>**Termination.**</u> Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Contractor.

In the event of termination, Contractor shall be entitled to compensation for Work satisfactorily completed as of the effective date of termination; Agency, however, may condition payment of such compensation upon Contractor delivering to Agency any or all records or documents (as referenced in Section 9.1 hereof).

- **8.2** <u>Amendments.</u> The Parties may amend this Agreement only by a writing signed by both of the Parties.
- **8.3** <u>Survival.</u> All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.
- **8.4** Options upon Breach by Contractor. If Contractor materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
  - 8.4.1 Immediately terminate the Agreement;
  - **8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Contractor pursuant to this Agreement;

- **8.4.3** Retain a different Contractor to complete the Work not finished by Contractor; and/or
- **8.4.4** Charge Contractor the difference between the costs to complete the Work that is unfinished at the time of breach and the amount that Agency would have paid Contractor pursuant hereto if Contractor had completed the Work.

## Section 9. KEEPING AND STATUS OF RECORDS.

- **9.1** Records Created as Part of Contractor's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.
- **9.2** <u>Contractor's Books and Records.</u> Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.
- **9.3** Inspection and Audit of Records. Any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.

#### 9.4 Confidential Information and Disclosure.

**9.4.1** <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality

agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as Confidential Information in accordance with this section.

- **9.4.2 Non-Disclosure of Confidential Information**. During the term of this Agreement, either party may disclose (the "Disclosing Party") Confidential Information to the other party (the "Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- **9.4.3** <u>Permitted Disclosure.</u> Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
  - **9.4.3.1** Disclosure to employees, agents, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.
  - **9.4.3.2** Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and
  - **9.4.3.3** Disclosure by Agency in response to a request pursuant to the California Public Records Act.
- **9.4.4** <u>Handling of Confidential Information</u>. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

#### Section 10. PROJECT SITE.

- **10.1** Operations at the Project Site. Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency; if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4; and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish, stemming from or relating to Contractor's Work.
- Contractor's Equipment, Tools, Supplies and Materials. Contractor shall be 10.2 solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work, whether owned, leased or rented. Neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, will be responsible for any such equipment, supplies or materials which may be lost, stolen or damaged or for any additional rental charges for such. Equipment, tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to have been abandoned by the Contractor. Any transportation furnished by Agency or, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall be solely as an accommodation and neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall have liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be new and in good condition.
- **10.3** <u>Use of Agency Equipment.</u> Contractor shall assume the risk and is solely responsible for its use of any equipment owned and property provided by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, for the performance of Work.

## Section 11. WARRANTY.

- **11.1** <u>Nature of Work.</u> In addition to any and all warranties provided or implied by law or public policy, Contractor warrants that all Work shall be free from defects in design and workmanship, and that Contractor shall perform all Work in accordance with applicable federal, state, and local laws, rules and regulations including engineering, construction and other codes and standards and prudent electrical utility standards, and in accordance with the terms of this Agreement.
- **11.2** <u>Deficiencies in Work.</u> In addition to all other rights and remedies which Agency may have, Agency shall have the right to require, and Contractor shall be

obligated at its own expense to perform, all further Work which may be required to correct any deficiencies which result from Contractor's failure to perform any Work in accordance with the standards required by this Agreement. If during the term of this Agreement or the one (1) year period following completion of the Work, any equipment, supplies or other materials or Work used or provided by Contractor under this Agreement fails due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable written notice from Agency, replace or repair the same to Agency's satisfaction.

**11.3** <u>Assignment of Warranties.</u> Contractor hereby assigns to Agency all additional warranties, extended warranties, or benefits like warranties, such as insurance, provided by or reasonably obtainable from suppliers of equipment and material used in the Work.

**Section 12. HEALTH AND SAFETY PROGRAMS.** The Contractor shall establish, maintain, and enforce safe work practices, and implement an accident/incident prevention program intended to ensure safe and healthful operations under their direction. The program shall include all requisite components of such a program under Federal, State and local regulations and shall comply with all site programs established by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4.

- **12.1** Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.
- **12.2** Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.
- **12.3** Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
- **12.4** Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.
- **12.5** Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of all written accident reports, and coordinate with Agency if further investigation is requested.

- **12.6** Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.
- **12.7** Contractor shall develop a plan to properly handle and dispose of any hazardous wastes, if any, Contractor generates in performing the Work.
- **12.8** Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.
- **12.9** Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials shall include diesel fuel used for trucks owned or leased by the Contractor.
- **12.10** If Contractor is providing Work to an Agency Member, SCPPA or SCPPA member (collectively "Member" solely for the purpose of this section) pursuant to Section 1.4 hereof, then that Member shall have the same rights as the Agency under Sections 12.1, 12.2, 12.4, 12.5, and 12.6 hereof.

#### Section 13. MISCELLANEOUS PROVISIONS.

- **13.1** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **13.2** <u>Venue.</u> In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- **13.3** <u>Severability.</u> If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- **13.4** <u>No Implied Waiver of Breach.</u> The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

- **13.5** <u>Successors and Assigns.</u> The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- **13.6** <u>Conflict of Interest.</u> Contractor may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Contractor shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* 

- **13.7** <u>Contract Administrator.</u> This Agreement shall be administered by the Assistant General Manager, Generation Services, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- 13.8 <u>Notices.</u> Any written notice to Contractor shall be sent to:

Process Cooling International, Inc. dba Applied Process Cooling Corporation dba APPCO Attention: Shon Martin 4812 Enterprise Way Modesto, CA 95356

Any written notice to Agency shall be sent to:

Randy S. Howard General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane E. Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

**13.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.

- **13.10** Integration; Incorporation. This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- **13.11** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Contractor agree to resolve the dispute in accordance with the following:
  - **13.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
  - **13.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
  - **13.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
  - **13.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
  - **13.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
  - **13.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq*.
- **13.12** <u>Controlling Provisions</u>. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Contractor's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Contractor's Proposal, the Purchase Order shall control.
- **13.13** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

- **13.14** <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- **13.15** <u>No Third Party Beneficiaries.</u> This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

PROCESS COOLING INTERNATIONAL, INC. DBA APPLIED PROCESS COOLING CORPORATION DBA APCCO

Date\_\_\_\_\_

Date\_\_\_\_\_

RANDY S. HOWARD, General Manager **JIM HELSEL P.E.,** Vice President of Construction

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

## EXHIBIT A

#### SCOPE OF WORK

Process Cooling International, Inc, dba Applied Process Cooling Corporation dba APCCO ("Contractor") shall provide insulation related services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by Agency, NCPA Members, Southern California Public Power Authority (SCPPA) or SCPPA Members.

Services to include, but not be limited to the following:

Insulation

No project under this Agreement shall include Work that would qualify as a Public Works Project under the California Public Contract Code.

## EXHIBIT B

#### COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all work, including hourly fees and expenses, shall not exceed the amount set forth in Section 2 hereof. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

\*\*\*Waiting for 2024 rates, will insert as soon as received from vendor\*\*\*

Contractor may revise the hourly rates upon 30 days' advance written notice to NCPA. If the Parties cannot agree on revised rates, NCPA may terminate the Agreement.

Pricing for services to be performed at NCPA Member or SCPPA locations will be quoted at the time services are requested.

NOTE: As a public agency, NCPA shall not reimburse Contractor for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

## EXHIBIT C

## CERTIFICATION

#### Affidavit of Compliance for Contractors

١,

(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

Process Cooling International, Inc. dba Applied Process Cooling Corporation dba APCCO

(Company name)

for contract work at:

#### LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20 \_\_\_\_\_.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

## NOT APPLICABLE

## EXHIBIT D

## CERTIFICATION

## Affidavit of Compliance for Hazardous Materials Transport Vendors

l, \_\_\_\_\_

(Name of person signing affidavit)(Title)

do hereby certify that the below-named company has prepared and implemented security plans in conformity with 49 CFR 172, subpart I and has conducted employee background investigations in conformity with 49 CFR 172.802(a), as the same may be amended from time to time,

(Company name)

for hazardous materials delivery to:

#### LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_, 20 \_\_\_,

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

## EXHIBIT E

#### ATTACHMENT A [from MLA] AGREEMENT TO BE BOUND

#### MAINTENANCE LABOR AGREEMENT ATTACHMENT LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

- 1) It is an Employer as that term is defined in Section 1.4 of the Lodi Energy Center Project Maintenance Labor Agreement ("Agreement" solely for the purposes of this Exhibit E) because it has been, or will be, awarded a contract or subcontract to assign, award or subcontract Covered Work on the Project (as defined in Section 1.2 and 2.1 of the Agreement), or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.
- 2) In consideration of the award of such contract or subcontract, and in further consideration of the promises made in the Agreement and all attachments thereto (a copy of which was received and is hereby acknowledged), it accepts and agrees to be bound by the terms and condition of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- 3) If it performs Covered Work, it will be bound by the legally established trust agreements designated in local master collective bargaining agreements, and hereby authorizes the parties to such local trust agreements to appoint trustees and successor trustee to administer the trust funds, and hereby ratifies and accepts the trustees so appointed as if made by the undersigned.
- 4) It has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of the Agreement.
- 5) It will secure a duly executed Agreement to be Bound, in form identical to this documents, from any Employer(s) at any tier or tiers with which it contracts to assign, award, or subcontract Covered Work, or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.

DATED: \_\_\_\_\_ Name of Employer

(Authorized Officer & Title)

(Address)



# Commission Staff Report – DRAFT

## COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** Eaton Corporation – Five Year Multi-Task General Services Agreement for Electrical Related Services; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

#### AGENDA CATEGORY: Consent

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	If other, please describe:
Department:	Combustion Turbines	

IMPACTED MEMBERS:								
All Members		City of Lodi		City of Shasta Lake				
Alameda Municipal Power		City of Lompoc		City of Ukiah				
San Francisco Bay Area Rapid Transit		City of Palo Alto		Plumas-Sierra REC				
City of Biggs		City of Redding		Port of Oakland				
City of Gridley		City of Roseville		Truckee Donner PUD				
City of Healdsburg		City of Santa Clara		Other				
		If other, please specify						

#### **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Eaton Corporation for electrical related services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members.

#### BACKGROUND:

Various electrical related services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. NCPA has utilized this vendor in the past, and has a good working relationship with this vendor. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. NCPA has agreements in place for similar services with Contra Costa Electric, Electrical Maintenance Consultants, Electric Power Systems and NorCal Power Services.

#### FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed \$2,000,000 over five years. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

#### **SELECTION PROCESS:**

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from qualified providers as required. Bids are awarded to the vendor providing the best overall value to NCPA. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

## **ENVIRONMENTAL ANALYSIS:**

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

#### COMMITTEE REVIEW:

Pending Committee review and approval.

AFTER FACILTIES APPROVAL: On January 3, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On January 8, 2024 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval. Respectfully submitted,

#### RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 24-XX
- Multi-Task General Services Agreement with Eaton Corporation

#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK GENERAL SERVICES AGREEMENT WITH EATON CORPORATION

#### (reference Staff Report XXX:24)

WHEREAS, various electrical related services are required from time to time for the operation and maintenance of facilities owned and/or operated by the Northern California Power Agency (NCPA), NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, Eaton Corporation is a provider of these services; and

WHEREAS, the NCPA Commission has reviewed the Multi-Task General Services Agreement with Eaton Corporation to provide such services as needed at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into said Multi-Task General Services Agreement, with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

PASSED, ADOPTED and APPROVED this	day of _	 2024 by the following vote
on roll call:		

	<u>Vote</u>	Abstained	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR ATTEST:

CARRIE POLLO ASSISTANT SECRETARY



#### MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND EATON CORPORATION

This Multi-Task General Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Eaton Corporation, a corporation with its office located at 1000 Cherrington Parkway, Moon Township, PA 15108 ("Contractor") (together sometimes referred to as the "Parties") as of \_\_\_\_\_\_, 2023 ("Effective Date") in Roseville, California.

**Section 1. SCOPE OF WORK**. Subject to the terms and conditions set forth in this Agreement, Contractor is willing to provide to Agency the range of services and/or goods described in the Scope of Work attached hereto as Exhibit A and incorporated herein ("Work").

- **1.1** <u>**Term of Agreement.**</u> The term of this Agreement shall begin on the Effective Date and shall end when Contractor completes the Work, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.
- **1.2 Standard of Performance.** Contractor shall perform the Work in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged and for which Contractor is providing the Work. Contractor represents that it is licensed, qualified and experienced to provide the Work set forth herein.
- **1.3** <u>Assignment of Personnel.</u> Contractor shall assign only competent personnel to perform the Work. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Contractor shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- **1.4** <u>Work Provided.</u> Work provided under this Agreement by Contractor may include Work directly to the Agency.
- **1.5** <u>**Request for Work to be Performed.</u>** At such time that Agency determines to have Contractor perform Work under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific Work to be performed ("Requested Work"), may include a not-to-exceed cap on monetary cap on Requested Work and all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Work shall be completed. Contractor shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Contractor chooses not to perform the Requested Work. If Contractor agrees to perform the Requested Work, or begins to perform the Requested Work, then Contractor will have agreed to perform the Requested Work on the terms set forth in the Purchase Order, this Agreement and its Exhibits.</u>

<u>Section 2.</u> <u>COMPENSATION.</u> Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** TWO MILLION dollars (\$2,000,000.00) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

- **2.1** <u>**Invoices.**</u> Contractor shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:
  - The beginning and ending dates of the billing period;
  - Work performed;
  - The Purchase Order number authorizing the Requested Work;
  - At Agency's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction;
  - At Agency's option, the total number of hours of work performed under the Agreement by Contractor and each employee, agent, and subcontractor of Contractor performing work hereunder.

Invoices shall be sent to:

Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Attn: Accounts Payable <u>AcctsPayable@ncpa.com</u>

- **2.2** <u>Monthly Payment.</u> Agency shall make monthly payments, based on invoices received, for Work satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Contractor.
- **2.3 Payment of Taxes.** Unless Agency provides Contractor with a valid and applicable exemption certificate, Agency will reimburse Contractor for sales, use, excise, services, consumption and other taxes or duties (excluding value-added tax) that Contractor is permitted or required to collect from Agency. Contractor is solely responsible fo the payment of taxes based upon Contractor's ongoing business such as employment taxes.
- **2.4** <u>Authorization to Perform Work.</u> The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

2.5 <u>Timing for Submittal of Final Invoice</u>. Contractor shall have ninety (90) days after completion of the Requested Work to submit its final invoice for the Requested Work. In the event Contractor fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Contractor is deemed to have waived its right to collect its final payment for the Requested Work from Agency.

**Section 3. FACILITIES AND EQUIPMENT.** Except as set forth herein, Contractor shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Work.

**Section 4. INSURANCE REQUIREMENTS.** Before beginning any Work under this Agreement, Contractor, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

**4.1** <u>Workers' Compensation.</u> If Contractor employs any person, Contractor shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Contractor with limits of not less than one million dollars (\$1,000,000.00) per accident.

## 4.2 <u>Commercial General and Automobile Liability Insurance.</u>

- **4.2.1** <u>Commercial General Insurance</u>. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a minimum limit of \$5,000,000 per occurrence/\$5,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability. No endorsement shall be attached limiting the coverage.
- **4.2.2** <u>Automobile Liability</u>. Contractor shall maintain automobile liability insurance for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Contractor, on or off Agency premises. The policy shall provide a minimum limit of \$5,000,000 per each accident. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.
- **4.2.3** <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.

4.3 Professional Liability Insurance. Contractor shall maintain professional liability insurance appropriate to Contractor's profession performing work in connection with this Agreement in an amount not less than one million dollars (\$1,000,000) and two million dollars (\$2,000,000) aggregate covering the Contractor's errors and omissions. Such insurance shall be on a "claims-made" basis, subject to the following conditions: (1) the retroactive date of the policy shall be on or before the Effective Date of this Agreement; (2) the policy shall be maintained for at least five (5) years after completion of the Services and, if requested by Agency, evidence of coverage shall be provided during this period; and (3) if, within five (5) years of completion of the Services, coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Agreement, Contractor shall purchase "extended reporting" coverage for a minimum of five (5) years after completion of the Services and, if requested by Agency, provide evidence of coverage during this period.

## 4.4 **Pollution Insurance.** Not Applicable.

## 4.5 <u>All Policies Requirements.</u>

- **4.5.1** <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) blanket policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured, to the extent of Contractor's legal liability and excluding its requirements as set forth in Section 4.1 above, and declaring such insurance primary in regard to work performed pursuant to this Agreement.
- **4.5.2** <u>Notice of Reduction in or Cancellation of Coverage.</u> Contractor shall provide at least thirty (30) days written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.

## 4.5.3 <u>Reserved</u>.

## 4.5.4 Reserved..

- **4.5.5** <u>Waiver of Subrogation.</u> Excluding Worker's Compensation policies, Contractor agrees to waive subrogation, to the extent of Contractor's legal liability assumed hereunder, which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation.
- **4.6** <u>Contractor's Obligation.</u> Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Work

are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Contractor shall also ensure that all workers involved in the provision of Work are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

## Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

- **5.1** <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Contractor acknowledges and agrees to the provisions of this section and that it is a material element of consideration.
- **5.2** <u>Scope.</u> Contractor shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against any and all claims of bodily injury, death or property damage brought against the Agency that arise out of, and to the extent of the negligence, recklessness or willful misconduct of the Contractor in its performance of Work under this Agreement. Contractor shall bear all losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims brought against Agency for bodily injury, death or property damage ("Liabilities") to the extent of Contractor's negligence. Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the sole negligence, active negligence, or willful misconduct of the Agency.
- 5.3 <u>Transfer of Title.</u> Not Applicable.

## Section 6. STATUS OF CONTRACTOR.

6.1 <u>Independent Contractor.</u> Contractor is an independent contractor and not an employee of Agency. Agency shall have the right to control Contractor only insofar as the results of Contractor's Work and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Contractor accomplishes Work rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contribution to

be paid by Agency for employer contributions and/or employee contributions for PERS benefits.

Contractor shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Contractor and Agency acknowledge and agree that compensation paid by Agency to Contractor under this Agreement is based upon Contractor's estimated costs of providing the Work, including salaries and benefits of employees, agents and subcontractors of Contractor.

Contractor shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Contractor's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Contractor agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Contractor shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Contractor.

- **6.2** <u>Contractor Not Agent.</u> Except as Agency may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- 6.3 Assignment and Subcontracting. This Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Contractor. Contractor may not assign this Agreement or any interest therein without the prior written approval of the Agency, with such approval not being unreasonably withheld, delayed, or conditioned. Contractor shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Contractor shall supervise all work subcontracted by Contractor in performing the Work and shall be responsible for all work performed by a subcontractor as if Contractor itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Contractor from any of its obligations under this Agreement with respect to the Work and Contractor is obligated to ensure that any and all subcontractors performing any Work shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.

- 6.4 <u>Certification as to California Energy Commission.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit C.
- 6.5 <u>Certification as to California Energy Commission Regarding Hazardous</u> <u>Materials Transport Vendors.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit D.
- 6.6 <u>Maintenance Labor Agreement.</u> If the Work is subject to the terms of one or more Maintenance Labor Agreements, which are applicable only to certain types of construction, repair and/or maintenance projects, then Contractor shall execute Exhibit E and/or similar documentation as to compliance.

## Section 7. LEGAL REQUIREMENTS.

- **7.1 <u>Governing Law.</u>** The laws of the State of California shall govern this Agreement.
- **7.2** <u>Compliance with Applicable Laws.</u> Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- **7.3** <u>Licenses and Permits.</u> Contractor represents and warrants to Agency that Contractor and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.
- **7.4** <u>Monitoring by DIR.</u> The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- **7.5** <u>**Registration with DIR.**</u> During the term of this Agreement, Contractor warrants that it is registered with the Department of Industrial Relations and qualified to perform Work consistent with Labor Code section 1725.5.
- **7.6** <u>**Prevailing Wage Rates.**</u> In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work as provided in the California Labor Code must be paid to all workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed; the Agency has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the project; and copies of the prevailing rate of per diem wages are on file at the Agency and will be made available on request. Throughout the performance of the Work, Contractor must comply with all

applicable laws and regulations that apply to wages earned in performance of the Work. Contractor assumes all responsibility for such payments and shall defend, indemnify and hold the Agency harmless from any and all claims made by the State of California, the Department of Industrial Relations, any subcontractor, any worker or any other third party with regard thereto.

Additionally, in accordance with the California Administrative Code, Title 8, Group 3, Article 2, Section 16000, Publication of Prevailing Wage Rates by Awarding Bodies, copies of the applicable determination of the Director can be found on the web at: http://www.dir.ca.gov/DLSR/PWD/ and may be reviewed at any time.

Contractor shall provide a certified copy of its payroll, on forms to be determined by the Agency and consistent with the Labor Code, within ten (10) days of the Contractor's receipt of Agency's written request therefor. Contractor's failure to timely comply with this provision may subject the Contractor to penalties pursuant to state law.

Contractor shall comply with applicable law, including Labor Code Sections 1774 and 1775. In accordance with Section 1775, Contractor shall forfeit as a penalty to Agency \$200.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for such work or craft in which such worker is employed for any Work done under the Agreement by Contractor or by any subcontractor under Contractor in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 *et seq.* In addition to the penalty and pursuant to Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

#### Section 8. TERMINATION AND MODIFICATION.

**8.1** <u>**Termination.**</u> Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Contractor.

In the event of termination, Contractor shall be entitled to compensation for Work satisfactorily completed as of the effective date of termination, including without limitation all progress billings, services rendered, and all incurred direct manufacturing costs; Agency, however, may condition payment of such compensation upon Contractor delivering to Agency any or all records or documents (as referenced in Section 9.1 hereof).

- **8.2** <u>Amendments.</u> The Parties may amend this Agreement only by a writing signed by both of the Parties.
- **8.3** <u>Survival.</u> All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.

- 8.4 <u>Options upon Breach by Contractor.</u> If Contractor materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency shall provide Contractor with written notice of such breach and a ten (10) day period in which to commence to cure such breach. In the event Contractor does not commence to cure within such ten (10) day period, Agency may terminate this agreement, in whole or in part, and purchase similar replacement goods or services. Contractor shall reimburse Agency for the direct and reasonable costs of reprocuring such similar replacement goods or services over the original Purchase Order price.
- **8.4.1** If agreed to in writing by both parties, Agency may retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Contractor pursuant to this Agreement.

# Section 9. KEEPING AND STATUS OF RECORDS.

- **9.1** Records Created as Part of Contractor's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.
- **9.2** <u>Contractor's Books and Records.</u> Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.
- **9.3** Inspection and Audit of Records. Excluding any cost, financial accounting or proprietary information, unless required to be provided to Agency by law or regulation, any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any mutually agreed upon time during regular business hours, upon oral or written request of the Agency, and at Agency's sole cost and expense. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor excluding any cost, financial accounting or proprietary information of Contractor unless required to be provided to Agency by law or regulation, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.

## 9.4 Confidential Information and Disclosure.

- **9.4.1** <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as Confidential Information in accordance with this section.
- **9.4.2 Non-Disclosure of Confidential Information**. During the term of this Agreement, either party may disclose (the "Disclosing Party") Confidential Information to the other party (the "Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- **9.4.3** <u>Permitted Disclosure.</u> Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
  - **9.4.3.1** Disclosure to employees, agents, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.
  - **9.4.3.2** Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and
  - **9.4.3.3** Disclosure by Agency in response to a request pursuant to the California Public Records Act.
- **9.4.4** <u>Handling of Confidential Information</u>. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c)

in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

## Section 10. PROJECT SITE.

- **10.1** Operations at the Project Site. Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency; if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4; and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish, stemming from or relating to Contractor's Work.
- 10.2 Contractor's Equipment, Tools, Supplies and Materials. Contractor shall be solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work, whether owned, leased or rented. Neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, will be responsible for any such equipment, supplies or materials which may be lost, stolen or damaged or for any additional rental charges for such. Equipment. tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to have been abandoned by the Contractor. Any transportation furnished by Agency or, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall be solely as an accommodation and neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall have liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be new and in good condition.
- **10.3** <u>Use of Agency Equipment.</u> Contractor shall assume the risk and is solely responsible for its use of any equipment owned and property provided by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, for the performance of Work.

#### Section 11. WARRANTY.

- 11.1 Nature of Work. Contractor warrants that all Work shall be free from failure due to defects in design (Contractor's design), material, and workmanship, and that Contractor shall perform all Work in accordance with applicable federal, state, and local laws, rules and regulations including engineering, construction and other codes and standards and prudent electrical utility standards, and in accordance with the terms of this Agreement. Unless otherwise agreed to in writing by Contractor, Contractor assumes no responsibility with respect to the suitability of the Agency's, or its customer's, equipment or with respect to any latent defects in equipment not supplied by Contractor. This warranty does not cover damage to Agency's, or its customer's, equipment, components or parts resulting from Agency's improper maintenance or operation or from their deteriorated condition. Agency will, at its cost, provide Contractor with reasonable access to the defective Works for a reasonable period of time to expeditiously perform warranty obligations, as well as reasonable working space in the immediate vicinity of the defective Works and such facilities and systems, including, without limitation, docks, cranes and utility disconnects and connects, as may be necessary in order that Contractor may perform its warranty obligations, unless as part of Contractor's Work Contractor performed activities to obtain access to the defective Work in which case Contractor shall perform the necessary activities listed above to perform Contractor's warranty obligations. Contractor shall proceed diligently to repair the defective Works to reduce equipment downtime. The conducting of any tests shall be mutually agreed upon and Contractor shall be notified of, and may be present at, all tests that may be made.
- **11.2** Deficiencies in Work. Agency shall have the right to require, and Contractor shall be obligated at its own expense to perform, all further Work which may be required to correct any deficiencies which result from Contractor's failure to perform any Work in accordance with the standards required by this Agreement. If during the one (1) year period following completion of the Work, any equipment, supplies or other materials or Work used or provided by Contractor under this Agreement fails due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable written notice from Agency, replace or repair the same to Agency's satisfaction. THE FOREGOING WARRANTIES ARE EXCLUSIVE EXCEPT FOR WARRANTY OF TITLE. CONTRACTOR DISCLAIMS ALL OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE..
- **11.3** <u>Assignment of Warranties.</u> Contractor hereby assigns to Agency all additional warranties or extended warranties provided by or reasonably obtainable from suppliers of equipment and material used in the Work, to the extent such third party permits assignment of its warranty.

**Section 12. HEALTH AND SAFETY PROGRAMS.** The Contractor shall establish, maintain, and enforce safe work practices, and implement an accident/incident prevention program intended to ensure safe and healthful operations under their direction. The program shall include all requisite components of such a program under Federal, State and local regulations
and shall comply with all site programs established by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4.

- **12.1** Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.
- **12.2** Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.
- **12.3** Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
- **12.4** Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.
- **12.5** Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of all written accident reports, and coordinate with Agency if further investigation is requested.
- **12.6** Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.
- **12.7** Contractor shall develop a plan to properly handle and dispose of any hazardous wastes, if any, Contractor generates in performing the Work.
- **12.8** Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.
- **12.9** Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous

Materials shall include diesel fuel used for trucks owned or leased by the Contractor.

**12.10** If Contractor is providing Work to an Agency Member, SCPPA or SCPPA member (collectively "Member" solely for the purpose of this section) pursuant to Section 1.4 hereof, then that Member shall have the same rights as the Agency under Sections 12.1, 12.2, 12.4, 12.5, and 12.6 hereof.

## Section 13. MISCELLANEOUS PROVISIONS.

- **13.1** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **13.2** <u>Venue.</u> In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- **13.3** <u>Severability.</u> If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- **13.4** <u>No Implied Waiver of Breach.</u> The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- **13.5** <u>Successors and Assigns.</u> The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- **13.6** <u>Conflict of Interest.</u> Contractor may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Contractor shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* 

**13.7** <u>Contract Administrator.</u> This Agreement shall be administered by the Assistant General Manager, Generation Services, or his/her designee, who shall act as the

Agency's representative. All correspondence shall be directed to or through the representative.

**13.8** <u>Notices.</u> Any written notice to Contractor shall be sent to:

Eaton Corporation Attention: Contracts Management 1000 Cherrington Parkway Moon Township, PA 15108

Any written notice to Agency shall be sent to:

Randy S. Howard General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane E. Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

- **13.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- **13.10** <u>Integration; Incorporation.</u> This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- **13.11** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Contractor agree to resolve the dispute in accordance with the following:
  - **13.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
  - **13.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
  - **13.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement

by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.

- **13.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
- **13.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
- **13.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq*.
- **13.12** <u>Controlling Provisions</u>. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Contractor's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Contractor's Proposal, the Purchase Order shall control.
- **13.13** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- **13.14** <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- **13.15** <u>No Third Party Beneficiaries.</u> This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

## Section 14. Limitation of Liablity.

**14.1** THE REMEDIES OF THE AGENCY SET FORTH IN THIS CONTRACT ARE EXCLUSIVE AND ARE ITS SOLE REMEDIES FOR ANY FAILURE OF CONTRACTOR TO COMPLY WITH ITS OBLIGATIONS HEREUNDER. NOTWITHSTANDING ANY PROVISION IN THIS CONTRACT TO THE CONTRARY, IN NO EVENT SHALL CONTRACTOR BE LIABLE IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR OTHERWISE FOR LOSS OF PROFITS OR REVENUE, COST OF CAPITAL, CLAIMS OF CUSTOMERS OF THE AGENCY OR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, REGARDLESS OF WHETHER SUCH POTENTIAL DAMAGES ARE FORESEEABLE OR IF CONTRACTOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

BUT FOR THIRD PARTY LIABILITY FOR PROPERTY DAMAGE OR PERSONAL INJURY (INCLUDING TO AGENCY EMPLOYEES) TO THE EXTENT OF CONTRACTOR'S NEGLIGENCE, THE TOTAL CUMULATIVE LIABILITY OF CONTRACTOR ARISING FROM OR RELATED TO THIS CONTRACT WHETHER THE CLAIMS ARE BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR OTHERWISE, SHALL NOT EXCEED THE TOTAL CONTRACT COMPENSATION OR \$5 MILLION, WHICHEVER IS GREATER.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

EATON CORPORATION

Date\_\_\_\_\_

Date\_\_\_\_\_

RANDY S. HOWARD, General Manager **IGOR STAMENKOVIC,** Vice President/General Manager

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

# **EXHIBIT A**

## SCOPE OF WORK

Eaton Corporation ("Contractor") shall provide electrical related services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by Agency, NCPA Members, Southern California Public Power Authority (SCPPA) or SCPPA Members.

Services to include, but not be limited to the following:

- Generator Inspections
- Testing and Evaluation
- •
- Stator and Field Cleaning and Sealing
- Exciter Maintenance and Inspection
- Retaining Ring Removal and Non-Destructive Testing
- Static Excitation Retrofits
- Voltage Regulation Retrofits
- Control System Troubleshooting
- Control System Calibration and Maintenance
- Additional electrical related services as needed

Contractor may provide services at all Project Site Locations.

No project under this Agreement shall include Work that would qualify as a Public Works Project under the California Public Contract Code.

# EXHIBIT B

## COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all work, including hourly fees and expenses, shall not exceed the amount set forth in Section 2 hereof. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

Service	Straight Time	Overtime	Premium
In-shop technician	\$204	\$306	\$407
Field service technician	\$248	\$372	\$496
Field service specialist/engineer	\$314	\$471	\$628
Remote service specialist	\$314	\$314	\$314
Power automation specialist	\$414	\$620	\$827
Power systems engineer	\$414	\$620	\$827
Special consultant/forensic analysis	\$514	\$770	\$1,027
CAD technician	\$175	\$262	\$349
Project coordinator	\$224	\$337	\$449
Construction manager	\$347	\$521	\$695
Design engineer	\$347	\$521	\$695
Scheduler	\$347	\$521	\$695
Project manager	\$410	\$614	\$819
Project/principal engineer	\$410	\$614	\$819
Safety specialist	\$410	\$614	\$819
Quality specialist	\$410	\$614	\$819
Excitation specialist	\$499	\$748	\$997

Contractor may revise the hourly rates upon 30 days' advance written notice to NCPA. If the Parties cannot agree on revised rates, NCPA may terminate the Agreement.

Pricing for services to be performed at NCPA Member or SCPPA locations will be quoted at the time services are requested.

NOTE: As a public agency, NCPA shall not reimburse Contractor for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

# EXHIBIT C

# CERTIFICATION

# Affidavit of Compliance for Contractors

١,

# (Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

Eaton Corporation

(Company name)

for contract work at:

## LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_, 20 \_\_\_\_\_,

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

# NOT APPLICABLE

# EXHIBIT D

# CERTIFICATION

# Affidavit of Compliance for Hazardous Materials Transport Vendors

I, \_\_\_\_\_

(Name of person signing affidavit)(Title)

do hereby certify that the below-named company has prepared and implemented security plans in conformity with 49 CFR 172, subpart I and has conducted employee background investigations in conformity with 49 CFR 172.802(a), as the same may be amended from time to time,

(Company name)

for hazardous materials delivery to:

LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20 \_\_\_\_,

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

## EXHIBIT E

## ATTACHMENT A [from MLA] AGREEMENT TO BE BOUND

## MAINTENANCE LABOR AGREEMENT ATTACHMENT LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

- 1) It is an Employer as that term is defined in Section 1.4 of the Lodi Energy Center Project Maintenance Labor Agreement ("Agreement" solely for the purposes of this Exhibit E) because it has been, or will be, awarded a contract or subcontract to assign, award or subcontract Covered Work on the Project (as defined in Section 1.2 and 2.1 of the Agreement), or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.
- 2) In consideration of the award of such contract or subcontract, and in further consideration of the promises made in the Agreement and all attachments thereto (a copy of which was received and is hereby acknowledged), it accepts and agrees to be bound by the terms and condition of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- 3) If it performs Covered Work, it will be bound by the legally established trust agreements designated in local master collective bargaining agreements, and hereby authorizes the parties to such local trust agreements to appoint trustees and successor trustee to administer the trust funds, and hereby ratifies and accepts the trustees so appointed as if made by the undersigned.
- 4) It has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of the Agreement.
- 5) It will secure a duly executed Agreement to be Bound, in form identical to this documents, from any Employer(s) at any tier or tiers with which it contracts to assign, award, or subcontract Covered Work, or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.

DATED: \_\_\_\_\_ Name of Employer

(Authorized Officer & Title)

(Address)

GS-VEN-2023-020



# Commission Staff Report – DRAFT

## COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** Univar Solutions, Inc. – Five Year Multi-Task Agreement for Purchase of Chemicals; Applicable to the following: All Northern California Power Agency (NCPA) Facilities

## AGENDA CATEGORY: Consent

FROM:	Michael DeBortoli METHOD OF SEI		SEL	ECTION:		
	Assistant General Manager		N/A			
Division:	Generation Servi	ces	lf other, please des	cribe:	· ·	
Department:	Geothermal					
	MEMBERS:					
	All Members	$\boxtimes$	City of Lodi		City of Shasta Lake	
Alameda N	Iunicipal Power		ity of Lompoc		City of Ukiah	
San Frar	ncisco Bay Area Rapid Transit	Cit	y of Palo Alto		Plumas-Sierra REC	
	City of Biggs	Ci	ty of Redding		Port of Oakland	
	City of Gridley	□ Cit	y of Roseville		Truckee Donner PUD	
Cit	y of Healdsburg	□ City o	of Santa Clara		Other	
		If oth	er, please specify			

## **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the General Manager or his designee to enter into a Multi-Task Agreement for Purchase of Chemicals with Univar Solutions, Inc. for specialty chemical purchases, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA.

## BACKGROUND:

Specialty chemical purchases are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA. NCPA has utilized this vendor in the past, and has a good working relationship with the vendor. NCPA's previous agreement with Univar Solutions, Inc. has expired. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. NCPA has agreements in place for similar services with Brenntag Pacific, Hill Brothers Chemical Company, Thatcher Company of California, and Dow Chemical (Pending).

#### FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed \$1,000,000 over five years. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

## **SELECTION PROCESS:**

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from qualified providers as required. Bids are awarded to the vendor providing the best overall value to NCPA. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

#### ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

## COMMITTEE REVIEW:

PENDING COMMITTEE APPROVAL:

AFTER FACILITIES APPROVAL: On January 3, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On January 8, 2024 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

January 18, 2024 Page 3

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 24-XX
- Multi-Task Agreement for Purchase of Chemicals with Univar Solutions, Inc.

#### **RESOLUTION 24-XX**

## RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK AGREEMENT FOR PURCHASE OF CHEMICALS WITH UNIVAR SOLUTIONS, INC

#### (reference Staff Report #XXX:24)

WHEREAS, specialty chemical purchases are required from time to time for the operation and maintenance of facilities owned and/or operated by the Northern California Power Agency (NCPA); and

WHEREAS, Univar Solutions, Inc. is a provider of these services; and

WHEREAS, the NCPA Commission has reviewed the Multi-Task Purchase of Chemicals with Univar Solutions, Inc. to provide such services as needed at any facilities owned and/or operated by NCPA; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into said Agreement, with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA.

PASSED, ADOPTED and APPROVED this _	day of	, 2024 by the following vote
on roll call:		

	Vote	<u>Abstained</u>	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR CARRIE POLLO ASSISTANT SECRETARY



## MULTI-TASK AGREEMENT FOR PURCHASE OF CHEMICALS BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND UNIVAR SOLUTIONS, INC.

This Agreement for Purchase of Equipment, Materials and Supplies ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency, with its main offices located at 651 Commerce Drive, Roseville, CA, 95678-6420 ("Agency") and Univar Solutions, Inc., ("Supplier"), whose principal office is located at 3075 Highland Parkway, #200, Downers Grove, IL 60515 (together sometimes referred to as the "Parties") as of \_\_\_\_\_\_, 2024 (the "Effective Date").

**Section 1.** <u>SCOPE</u>. In accordance with the terms and conditions set forth in this Agreement, Supplier is willing to deliver the equipment, materials and supplies ("Goods") described in Exhibit A, attached hereto and incorporated herein to the designated Project Site, DDP, when requested by the Agency. Supplier shall be responsible at its sole expense for delivering the Goods to the designated Project Site and title shall not pass until the Agency accepts delivery at this Site. In the event of a conflict or inconsistency between the terms of this Agreement and Exhibit A, this Agreement shall prevail.

**Section 2.** <u>**PROJECT SITE.</u>** Goods provided under this Agreement by Supplier may include Goods delivered directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement. The "designated Project Site", as that term is used herein, shall mean the site for delivery, DDP.</u>

**Section 3.** <u>**TERM OF AGREEMENT.**</u> This Agreement shall begin upon Effective Date and shall end on the earlier of five (5) years after the Effective Date or when Supplier has provided to Agency the Goods described in Exhibit A.

**Section 4.** <u>**REQUEST FOR GOODS.</u>** At such time that Agency determines to have Supplier provide Goods under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific Goods to be provided ("Requested Goods"), may include a not-to-exceed cap or monetary cap on the Requested Goods and all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Goods shall be delivered. Supplier shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Supplier chooses not to provide the Requested Goods. If Supplier agrees to provide the Requested Goods, begins to provide the Requested Goods, or does not respond within the seven day period specified, then Supplier will have agreed to provide the Requested Goods on the terms set forth in the Purchase Order, this Agreement and its Exhibits.</u>

**Section 5.** <u>COMPENSATION.</u> Agency hereby agrees to pay Supplier for the Goods an amount not to exceed ONE MILLION DOLLARS (\$1,000,000) as total compensation under this Agreement, which includes all shipping, taxes (if applicable), insurance, delivery charges, and any other fees, costs or charges. This dollar amount is not a guarantee that Agency will pay that full amount to the Supplier, but is merely a limit of potential Agency expenditures under this Agreement. Supplier may adjust product prices at any time. Agency may suspend orders immediately upon notice of a price increase. In the event price protection is stated in a written agreement between the parties, Supplier may temporarily suspend such product's price

protection in extraordinary market conditions as determined by Supplier in its discretion. Supplier shall reinstate the product's price protection upon Supplier's determination that the market condition for the product is no longer extraordinary.

**5.1 Invoices.** Supplier shall have ninety (90) days after the delivery of Goods to invoice Agency for all amounts due and outstanding under this Agreement. Supplier shall include the number of the Purchase Order which authorized the Goods for which Supplier is seeking payment. In the event Supplier fails to invoice Agency for all amounts due within such ninety (90) day period, Supplier waives its right to collect payment from Agency for such amounts. All invoices shall be submitted to:

Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Attn: Accounts Payable <u>AcctsPayable@ncpa.com</u>

- **5.2** <u>**Payment.**</u> Agency shall pay all invoices within thirty (30) days of the receipt of any invoice for Goods satisfactorily received.
- **5.3** <u>**Timing for Submittal of Final Invoice.**</u> Supplier shall have ninety (90) days after delivery of the Requested Goods to submit its final invoice for the Requested Goods. In the event Supplier fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Supplier is deemed to have waived its right to collect its final payment for the Requested Goods from Agency.

**Section 6.** <u>INSURANCE REQUIREMENTS.</u> Before beginning any work under this Agreement, Supplier, at its own cost and expense, shall procure the types and amounts of insurance listed below for the period covered by the Agreement.

- 6.1 <u>Workers' Compensation</u>. If Supplier employs any person, Supplier shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Supplier with limits of not less than \$1,000,000 per accident.
- **6.2** <u>Automobile Liability</u>. Supplier shall maintain automobile liability insurance for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle, whether or not owned by the Supplier, on or off Agency premises. The policy shall provide a minimum limit of \$3,000,000 per each accident, with \$5,000,000 aggregate. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment utilized in the transport of the Goods to the Agency's Project Site.
- **6.3** <u>Commercial General Liability (CGL).</u> Supplier shall maintain commercial general liability coverage covering Goods, including product liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of

the operations of Supplier in regard to this Agreement with not less than \$3,000,000 per each accident, with \$5,000,000 aggregate for bodily injury and property damage, on an occurrence basis. No endorsement shall be attached limiting the coverage.

6.4 <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.

# 6.5 <u>All Policies Requirements</u>.

- **6.5.1** <u>Verification of Coverage.</u> Prior to beginning any work under this Agreement, Supplier shall, at the sole option of the Agency, provide Agency with a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the automobile liability policy and the CGL policy adding the Northern California Power Agency as an Additional Insured and declaring such insurance primary in regard to work performed pursuant to this Agreement and that Agency's insurance is excess and non-contributing.
- **6.5.2** <u>Notice of Reduction in or Cancellation of Coverage.</u> Supplier agrees to provide at least thirty (30) days prior written notice of any cancellation or reduction in scope or amount of the insurance required under this Agreement.
- **6.5.3** <u>Waiver of Subrogation.</u> Supplier agrees to waive subrogation which any insurer of Supplier may acquire from Supplier by virtue of the payment of any loss. Supplier agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation.
- 6.6 <u>Pollution Insurance.</u> If Contractor's Work involves its transporting hazardous materials, then Contractor shall obtain and maintain Contractors' Pollution Liability Insurance of not less than \$2,000,000 for any one occurrence and not less than \$4,000,000 aggregate. Any deductible or self-insured retention shall not exceed \$250,000 per claim. Such insurance shall be on "an occurrence" basis. In addition, Contractor shall ensure that such insurance complies with any applicable requirements of the California Department of Toxic Substances Control and California regulations relating to the transport of hazardous materials (Health & Safety Code sections 25160 *et seq.)*.

"Hazardous Materials" means any toxic or hazardous substance, hazardous material, dangerous or hazardous waste, dangerous good, radioactive material, petroleum or petroleum-derived products or by-products, or any other chemical, substance, material or emission, that is regulated, listed, or controlled pursuant to any national, state, or local law, statute, ordinance, directive, regulation, or other legal requirement of the United States.

Section 7. **WARRANTY.** In addition to any and all warranties provided or implied by law or public policy, or any other warranties provided by Supplier, Supplier warrants that all Goods meet the Supplier specification at the time of delivery and comply with applicable federal, state and local laws and regulations; and are not subject to any liens or encumbrances. SUPPLIER MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED. AGENCY'S SOLE REMEDY FOR BREACHES OF THIS WARRANTY IS REPLACEMENT OR REFUND OF THE DEFECTIVE GOODS. Moreover, Agency must make any claim for shortage or non-conforming Goods within 30 days after Agency's receipt of the Goods in writing. Any claim for non-delivery must be made within 30 days after the date the Goods were to be delivered. As to any claim not reasonably discoverable within such 30 day period (including claims discoverable only in process, further manufacture, other use or resale), such claim must be in writing and received by Supplier within 180 days after Agency's receipt of the Goods. Failure of Supplier to receive written notice of any such claim within the applicable time period shall be deemed an absolute and unconditional waiver by Agency of such claim. Goods may not be returned without Supplier's permission and transportation for return will not be paid by Supplier unless authorized in advance. Amounts owing to or payable by either party under this Agreement shall be deemed finally reconciled on the first anniversary of the final delivery under this Agreement and any outstanding rights of either party to receive overpayments or under payments including rights to unclaimed credits or refunds shall expire on such date.

# Section 8. INDEMNIFICATION AND SUPPLIER'S RESPONSIBILITIES.

- 8.1 <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Supplier from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Supplier acknowledges and agrees to the provisions of this section and that it is a material element of consideration.
- **8.2** <u>Scope.</u> Supplier shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency, and its officials, commissioners, officers, employees, agents and volunteers from and against all losses, liabilities, claims, demands, suits, actions, damages, expenses, penalties, fines, costs (including without limitation costs and fees of litigation), judgments and causes of action of every nature arising out of or in connection with any acts or omissions by Supplier, its officers, officials, agents, and employees, except as caused by the sole or gross negligence of Agency. Notwithstanding, should this Agreement be construed as a construction agreement under Civil Code section 2783, then the exception referenced above shall also be for the active negligence of Agency.
- 8.3 <u>Transfer of Title.</u> Supplier shall be deemed to be in exclusive possession and control of the Goods and shall be responsible for any damages or injury caused thereby, including without limitation any spills, leaks, discharges or releases of any Goods, until Agency accepts delivery at its Site. For the purposes of this Agreement, such acceptance shall occur after Supplier or its agents complete transfer of the Goods into appropriate containers, machinery, storage tanks or other storage apparatus identified by NCPA. In the event a spill, leak, discharge

or release requires notification to a federal, state or local regulatory agency, Supplier shall be responsible for all such notifications. Should Supplier be required to remedy or remove Goods as a result of a leak, spill, release or discharge of Goods into the environment at Agency's Site or elsewhere, Supplier agrees to remediate, remove or cleanup Agency's Site to a level sufficient to receive a "No Further Action Required" or "Closure Letter" from the appropriate regulatory authority.

# Section 9. <u>MISCELLANEOUS PROVISIONS.</u>

- **9.1** Integration; Incorporation. This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Supplier and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- **9.2** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- **9.3** <u>Compliance with Applicable Law.</u> Supplier shall comply with all applicable federal, state, and local laws, rules and regulations in regard to this Agreement and the Goods supplied hereunder.
- **9.4 Construction of Agreement.** The Parties agree that the usual construction of an agreement against the drafting party shall not apply here.
- **9.5 Supplier's Status.** Supplier is an independent contractor and not an employee or agent of NCPA.
- **9.6** <u>Non-assignment.</u> Either party may not assign this Agreement without the prior written consent of the other party, which shall not be unreasonably withheld.
- **9.7** <u>**Governing Law.**</u> This Agreement and all matters pertaining to it, shall be governed by the laws of the State of California and venue shall lie in Placer County or in the county to which the Goods are delivered.
- **9.8** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **9.9** <u>Severability.</u> If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

- **9.10 No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- **9.11 Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- **9.12 Conflict of Interest.** Supplier may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Supplier in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Supplier shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* 

- **9.13 Contract Administrator.** This Agreement shall be administered by Michael DeBortoli, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- 9.14 <u>Notices.</u> Any written notice to Supplier shall be sent to:

Tom McGowan, Sales Account Manager 2461 Crocker Circle Fairfield, CA. 94533

Any written notice to Agency shall be sent to:

Randy S. Howard, General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane E. Luckhardt, General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

- **9.15** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Supplier agree to resolve the dispute in accordance with the following:
  - **9.15.1** Each party shall designate a senior management or executive level representative to negotiate any dispute.

- **9.15.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
- **9.15.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
- **9.15.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
- **9.15.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
- **9.15.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*
- **9.16 Controlling Provisions.** In the case of any conflict between the terms of this Agreement and the Exhibits hereto, and Supplier's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Supplier's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Supplier's Proposal (if any), the Purchase Order shall control.
- **9.17** <u>Certification as to California Energy Commission.</u> If requested by the Agency, Supplier shall, at the same time it executes this Agreement, execute Exhibit B.
- 9.18 <u>Certification as to California Energy Commission Regarding Hazardous</u> <u>Materials Transport Vendors.</u> If requested by the Agency, Supplier shall, at the same time it executes this Agreement, execute Exhibit C.
- **9.19 No Third Party Beneficiaries.** This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties.
- **9.20** <u>Amendments.</u> The Parties may amend this Agreement only by a writing signed by both of the Parties.
- **9.21** <u>LIMITATION OF LIABILITY</u>. FOR LIABILITIES COVERED BY INSURANCE SUPPLIER'S LIABILITY IS EXCLUSIVELY LIMITED TO THE INSURANCE

LIMITS SPECIFIED IN Section 6. NEITHER PARTY IS LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOST PROFITS.

- **9.22** <u>Termination for Convenience</u>. Either party may terminate this Agreement at any time on up to180 days' notice whereby any confirmed orders remain valid.
- **9.23 Force Majeure.** Supplier is not liable for nonperformance or delay in performance caused by circumstances beyond Supplier's reasonable control and/or the occurrence of any unforeseeable contingency making performance impracticable ("Force Majeure Event"). A Force Majeure Event includes, without limitation, (a) acts of God, war, riots, fire, explosions, floods, regional strikes or lockouts, court ordered injunctions, cyber or physical security breaches unforeseen shutdown of major sources of supply, , epidemic or pandemic (including any further deterioration of conditions related to COVID-19), or national emergency; (b) unforeseen shortage of supply of Goods, fuel, power, raw materials, labor, containers, or transportation facilities; or (c) compliance in good faith with any applicable governmental statute, regulation, or order. Any delivery so suspended shall be cancelled without liability, but this Agreement shall otherwise remain unaffected. This section does not apply to payment obligations but for a delay of payment for up to five (5) business days.
- **9.24** Sanctions and Embargo Due Diligence. Neither party, nor, to its knowledge, any of its or its affiliates' directors, officers, agents, subsidiaries or employees, is a person that is, or is owned or controlled by persons that are (1) the subject of any sanctions or embargoes administered or enforced by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the U.S. Department of State, the United Nations Security Council, the European Union or HM Treasury (collectively, "Sanctions"); or (2) located, organized or resident in a country or territory that is, or whose government is, the subject of Sanctions. Agency shall not export Goods to any person that is subject to Sanctions.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

Date: \_\_\_\_\_

RANDY S. HOWARD, General Manager

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

Date: \_\_\_\_\_

UNIVAR SOLUTIONS, INC.

JAMES ROGERS, General Manager

# EXHIBIT A

## PURCHASE LIST

As requested by Agency, Supplier shall provide the following listed Goods, but not limited to the following, as requested by Agency at any one of its facility locations:

Chemical
Peroxide
Caustic Soda 15%
Soda Ash Dense
Lime 90%
Mag Ox 36%
Sulfuric Acid 93%
Sodium Hypochlorite 12.5% (Bleach)
Magnesium Sulfate 30%
Sodium Bisulfite 12% (Nalco PC?408)
Phosphoric Acid 70% (Nalco PC 185)
Aqua Ammonia
Sodium Hydroxide 15%
Additional products not listed above to be provided as requested in writing by NCPA facilities.

Additional products no listed above to be provided as requested in writing by NCPA facilities.

Supplier's deliveries shall be made by a vehicle suitable constructed to contain chemicals meeting Agency's product specifications. All delivery vehicles shall be labeled and constructed to meet all requirements of the California State Highway Patrol, the Interstate Commerce Commission and any jurisdictions having control over said delivery truck operations.

NCPA acknowledges that Supplier's chemical pricing may be subject to change. Pricing for goods shall be quoted by Supplier at the time the product is requested. Total compensation for all tasks, including all chemicals delivered under this Agreement, shall not exceed the amount as set forth in Section 5 (Compensation) of this Agreement.

# **EXHIBIT B**

# CERTIFICATION

## Affidavit of Compliance for Suppliers

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

# EXHIBIT C

# CERTIFICATION

# Affidavit of Compliance for Hazardous Materials Transport Vendors

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.



# Commission Staff Report – DRAFT

## **COMMISSION MEETING DATE:** January 5, 2024

**SUBJECT:** Reliable Turbine Services LLC – Five Year Multi-Task General Services Agreement; Applicable to the following: All Northern California Power Agency (NCPA) Facilities (Except the Lodi Energy Center), NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

## AGENDA CATEGORY: Consent

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	If other, please describe:
Department:	Geothermal	

IMPACTED MEMBERS:				
All Members	$\boxtimes$	City of Lodi	City of Shasta Lake	
Alameda Municipal Power		City of Lompoc	City of Ukiah	
San Francisco Bay Area Rapid Transit		City of Palo Alto	Plumas-Sierra REC	
City of Biggs		City of Redding	Port of Oakland	
City of Gridley		City of Roseville	Truckee Donner PUD	
City of Healdsburg		City of Santa Clara	Other	
		If other, please specify		

## **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Reliable Turbine Services LLC for inspection and maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$10,000,000 over five years, for use at any facilities owned and/or operated by NCPA (except the Lodi Energy Center), NCPA Members, by SCPPA and SCPPA Members.

## BACKGROUND:

Inspection and maintenance services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA (except the Lodi Energy Center), NCPA Members, by SCPPA and SCPPA Members. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. NCPA has agreements in place with Stephens Mechanical Corporation, TCB Industrial, Inc. and Sulzer Turbo Services Houston, Inc. for similar services.

## FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed \$10,000,000 over five years. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

## **SELECTION PROCESS:**

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from qualified providers as required. Bids are awarded to the vendor providing the best overall value to NCPA. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

#### **ENVIRONMENTAL ANALYSIS:**

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

#### **COMMITTEE REVIEW:**

Pending Committee review and approval.

AFTER FACILTIES APPROVAL: On January 3, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

January 5, 2024 Page 3

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 24-XX
- Multi-Task General Services Agreement with Reliable Turbine Services LLC

#### **RESOLUTION 24-XX**

## RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK GENERAL SERVICES AGREEMENT WITH RELIABLE TURBINE SERVICES LLC

#### (reference Staff Report XXX:24)

WHEREAS, inspection and maintenance services are required from time to time for the operation and maintenance of facilities owned and/or operated by the Northern California Power Agency (NCPA) (except the Lodi Energy Center), NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, Reliable Turbine Services LLC is a provider of these services; and

WHEREAS, the NCPA Commission has reviewed the Multi-Task General Services Agreement with Reliable Turbine Services to provide such services as needed at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into said Multi-Task General Services Agreement, with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$10,000,000 over five years, for use at any facilities owned and/or operated by NCPA (except the Lodi Energy Center), NCPA Members, by SCPPA, and SCPPA Members.

PASSED, ADOPTED and APPROVED this \_\_\_\_\_ day of \_\_\_\_\_\_, 2024 by the following vote on roll call:

	Vote	Abstained	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR

ATTEST:

CARRIE POLLO ASSISTANT SECRETARY



## MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND RELIABLE TURBINE SERVICES LLC

This Multi-Task General Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Reliable Turbine Services LLC, a Delaware limited liability company with its office located at 858 Acid Mine Road, Sullivan, MO 63080 ("Contractor") (together sometimes referred to as the "Parties") as of \_\_\_\_\_\_, 2023 ("Effective Date") in Roseville, California.

**Section 1. SCOPE OF WORK**. Subject to the terms and conditions set forth in this Agreement, Contractor is willing to provide to Agency the range of services and/or goods described in the Scope of Work attached hereto as Exhibit A and incorporated herein ("Work").

- **1.1** <u>**Term of Agreement.**</u> The term of this Agreement shall begin on the Effective Date and shall end when Contractor completes the Work, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.
- **1.2 Standard of Performance.** Contractor shall perform the Work in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged and for which Contractor is providing the Work. Contractor represents that it is licensed, qualified and experienced to provide the Work set forth herein.
- **1.3** <u>Assignment of Personnel.</u> Contractor shall assign only competent personnel to perform the Work. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Contractor shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- **1.4** <u>Work Provided.</u> Work provided under this Agreement by Contractor may include Work directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.
- **1.5** <u>**Request for Work to be Performed.</u>** At such time that Agency determines to have Contractor perform Work under this Agreement, Agency shall issue a Purchase Order(s). The Purchase Order(s) shall identify the specific Work to be performed ("Requested Work"), may include a not-to-exceed cap on monetary cap on Requested Work and all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Work shall be completed. Contractor shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Contractor chooses to perform the Requested Work. If Contractor does not respond within the seven day period specified, then Contractor will be deemed to have rejected the Purchase Order.</u>

<u>Section 2.</u> <u>COMPENSATION.</u> Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** Ten Million dollars (\$10,000,000.00) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

- **2.1** <u>**Invoices.**</u> Contractor shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date or progress payment schedule. Invoices shall contain the following information:
  - The beginning and ending dates of the billing period;
  - Work performed;
  - The Purchase Order number authorizing the Requested Work;
  - At Agency's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction;
  - At Agency's option, the total number of hours of work performed under the Agreement by Contractor and each employee, agent, and subcontractor of Contractor performing work hereunder.

Invoices shall be sent to:

Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Attn: Accounts Payable AcctsPayable@ncpa.com

- **2.2** <u>Monthly Payment.</u> Agency shall make monthly payments, based on invoices received, for Work satisfactorily performed in accordance with the requirements of this Agreement, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Contractor.
- **2.3 <u>Payment of Taxes.</u>** Contractor is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.
- **2.4** <u>Authorization to Perform Work.</u> The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

2.5 <u>Timing for Submittal of Final Invoice</u>. Contractor shall have ninety (90) days after completion of the Requested Work to submit its final invoice for the Requested Work. In the event Contractor fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Contractor is deemed to have waived its right to collect its final payment for the Requested Work from Agency.

**Section 3. FACILITIES AND EQUIPMENT.** Except as set forth herein, Contractor shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Work.

**Section 4. INSURANCE REQUIREMENTS.** Before beginning any Work under this Agreement, Contractor, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

**4.1** <u>Workers' Compensation.</u> If Contractor employs any person, Contractor shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Contractor with Workers' Compensation coverage having statutory limits and Employer's Liability limits of not less than one million dollars (\$1,000,000.00) per accident and per employee and policy limit for disease.

## 4.2 Commercial General Liability and Automobile Liability Insurance.

- **4.2.1** <u>Commercial General Insurance</u>. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a limit of \$5,000,000 per occurrence/\$5,000,000 aggregate. Commercial general liability coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- **4.2.2** <u>Automobile Liability</u>. Contractor shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Contractor, on or off Agency premises. The policy shall provide a limit of \$2,000,000 combined single limit, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.

- **4.2.3** <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.
- 4.3 **Professional Liability Insurance.** Not Applicable.
- 4.4 **Pollution Insurance.** Not Applicable.

## 4.5 <u>All Policies Requirements.</u>

- **4.5.1** <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2 and in Section 4.4, if applicable, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
- **4.5.2** <u>Notice of Reduction in or Cancellation of Coverage.</u> Contractor shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
- **4.5.3** <u>Higher Limits.</u> If Contractor maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Contractor.
- **4.5.4** <u>Additional Certificates and Endorsements.</u> If Contractor performs Work for Agency members, SCPPA and/or SCPPA members pursuant to this Agreement, Contractor shall provide the certificates of insurance and policy endorsements, as referenced in Section 4.5.1, naming the specific Agency member, SCPPA and/or SCPPA member for which the Work is to be performed.
- **4.5.5** <u>Waiver of Subrogation.</u> Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Contractor, its employees, agents and subcontractors.
- **4.6** <u>Contractor's Obligation.</u> Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Work are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Contractor is also responsible to obtain and maintain sufficient insurance to ensure repair or replacement of Agency's rotor and associated

equipment in transit to and from Agency's Site and while the rotor is as Contractor's facility. Contractor's liability shall transfer once Agency's rotor is placed on the truck for transport and shall end when Agency's rotor is lifted off the truck and placed on Agency's turbine deck for installation. Contractor shall also ensure that all workers involved in the provision of Work are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

# Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

- **5.1** <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Contractor acknowledges and agrees to the provisions of this section and that it is a material element of consideration.
- **5.2 Scope.** Contractor shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency, and its officials, commissioners, officers, employees, agents and volunteers from and against all losses, liabilities, claims, demands, suits, actions, damages, expenses, penalties, fines, costs (including without limitation costs and fees of litigation), judgments and causes of action of every nature arising out of or in connection with any breach of this Agreement or negligent or willful acts or omissions by Contractor, its officers, officials, agents, and employees, except as caused by the sole negligence or sole or proportional gross negligence of Agency, its officials, commissioners, officers, employees, agents or volunteers (other than Contractor). Notwithstanding, should this Agreement be construed as a construction agreement under Civil Code section 2783, then the exception referenced above shall also be for the active negligence of Agency.
- 5.3 <u>Transfer of Title.</u> Not Applicable.
- 5.4 Limitation of Liability. Except for indemnification obligations arising from Contractor's gross negligence or willful misconduct, the total liability of Contractor for all claims arising out of or relating to the performance or breach of this Agreement or any Work shall not exceed (i) the insurance limits contained in Section 4 for the policy under which coverage for the claim is available or (ii) if the claim is not covered by insurance: (a) 100% of the total compensation for the Requested Work under which the claim arose if the total compensation for the Requested Work is \$500,000 or above, (b) two (2) times the total compensation of the Requested Work but not to exceed \$500,000 if the total compensation for the Requested Work is greater than \$100,000 but less than \$500,000, or (c) three (3) times the total compensation but not to exceed \$250,000 if the total compensation for the Requested Work is less than \$100,000. NEITHER PARTY

SHALL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT DAMAGES, LOSS OF PROFIT OR REVENUES, LOSS OF PRODUCT, LOSS OF USE OF PRODUCTS OR SERVICES OR ANY ASSOCIATED EQUIPMENT, LOSS OR INTERRUPTION OF BUSINESS, LOSS OF OPPORTUNITY, EXCEPT IN CONNECTION WITH ANY SUCH DAMAGES ASSERTED IN A THIRD PARTY TORT CLAIM.

## Section 6. STATUS OF CONTRACTOR.

6.1 <u>Independent Contractor.</u> Contractor is an independent contractor and not an employee of Agency. Agency shall have the right to control Contractor only insofar as the results of Contractor's Work and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Contractor accomplishes Work rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contributions for PERS benefits.

Contractor shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Contractor and Agency acknowledge and agree that compensation paid by Agency to Contractor under this Agreement is based upon Contractor's estimated costs of providing the Work, including salaries and benefits of employees, agents and subcontractors of Contractor.

Contractor shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Contractor's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Contractor agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Contractor shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Contractor.
- **6.2** <u>Contractor Not Agent.</u> Except as Agency may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- 6.3 Assignment and Subcontracting. This Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Contractor. Contractor may not assign this Agreement or any interest therein without the prior written approval of the Agency. Contractor shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Contractor shall supervise all work subcontracted by Contractor in performing the Work and shall be responsible for all work performed by a subcontractor as if Contractor itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Contractor from any of its obligations under this Agreement with respect to the Work and Contractor is obligated to ensure that any and all subcontractors performing any Work shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.
- 6.4 <u>Certification as to California Energy Commission.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit C.
- 6.5 <u>Certification as to California Energy Commission Regarding Hazardous</u> <u>Materials Transport Vendors.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit D.
- 6.6 <u>Maintenance Labor Agreement.</u> If the Work is subject to the terms of one or more Maintenance Labor Agreements, which are applicable only to certain types of construction, repair and/or maintenance projects, then Contractor shall execute Exhibit E and/or similar documentation as to compliance.

## Section 7. LEGAL REQUIREMENTS.

- **7.1 <u>Governing Law.</u>** The laws of the State of California shall govern this Agreement.
- **7.2** <u>Compliance with Applicable Laws.</u> Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- **7.3** <u>Licenses and Permits.</u> Contractor represents and warrants to Agency that Contractor and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses,

permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.

- **7.4** <u>Monitoring by DIR.</u> This Paragraph 7.4 applies to all Work performed within the State of California. The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- **7.5** <u>**Registration with DIR.**</u> This Paragraph 7.5 applies to all Work performed within the State of California. During the term of this Agreement, Contractor warrants that it is registered with the Department of Industrial Relations and qualified to perform Work consistent with Labor Code section 1725.5.
- 7.6 Prevailing Wage Rates. This Paragraph 7.6 applies to all Work performed within the State of California. In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work as provided in the California Labor Code must be paid to all applicable workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed; the Agency has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the project; and copies of the prevailing rate of per diem wages are on file at the Agency and will be made available on request. Throughout the performance of the Work, Contractor must comply with all applicable laws and regulations that apply to wages earned in performance of the Work. Contractor assumes all responsibility for such payments and shall defend, indemnify and hold the Agency harmless from any and all claims made by the State of California, the Department of Industrial Relations, any subcontractor, any worker or any other third party with regard thereto.

Additionally, in accordance with the California Administrative Code, Title 8, Group 3, Article 2, Section 16000, Publication of Prevailing Wage Rates by Awarding Bodies, copies of the applicable determination of the Director can be found on the web at: http://www.dir.ca.gov/DLSR/PWD/ and may be reviewed at any time.

Contractor shall provide a certified copy of its payroll, on forms to be determined by the Agency and consistent with the Labor Code, within ten (10) days of the Contractor's receipt of Agency's written request therefor. Contractor's failure to timely comply with this provision may subject the Contractor to penalties pursuant to state law.

Contractor shall comply with applicable law, including Labor Code Sections 1774 and 1775. In accordance with Section 1775, Contractor shall forfeit as a penalty to Agency \$200.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial

Relations for such work or craft in which such worker is employed for any Work done under the Agreement by Contractor or by any subcontractor under Contractor in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 *et seq.* In addition to the penalty and pursuant to Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

#### Section 8. TERMINATION AND MODIFICATION.

**8.1** <u>**Termination.**</u> Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Contractor.

In the event of termination, Contractor shall be entitled to compensation for Work satisfactorily completed in accordance with the requirements of this Agreement as of the effective date of termination plus any reasonable costs or expenses incurred by Contractor in connection with such termination, including demobilization costs; Agency, however, may condition payment of such compensation upon Contractor delivering to Agency any or all records or documents (as referenced in Section 9.1 hereof).

Provided there are no outstanding purchase orders to Contractor, Contractor can terminate this Agreement with thirty (30) days' notice. Contractor may also terminate this Agreement if Agency materially breaches this Agreement and fails to cure within thirty (30) days after Contractor provides Agency with detailed written notice of the breach and of Contractor's intention to terminate this Agreement.

- **8.2** <u>Amendments.</u> The Parties may amend this Agreement only by a writing signed by both of the Parties.
- **8.3** <u>Survival.</u> All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.
- **8.4** Options upon Breach by Contractor. If Contractor materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency shall have the following remedies:
  - **8.4.1** Immediately terminate the Agreement, provided that: (a) Agency shall first provide Contractor with detailed written notice of the breach and of Agency's intention to terminate this Agreement, and (b) Contractor shall have failed, within 10 days after receipt of the notice (or such extended period as is considered reasonable by the parties), to either (1) commence and diligently pursue cure of the breach, or (2) provide reasonable evidence that the breach has not occurred;

- **8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Contractor pursuant to this Agreement;
- **8.4.3** Retain a different Contractor to complete the Work not finished by Contractor; and/or
- **8.4.4** Charge Contractor the difference between the costs to complete the Work that is unfinished at the time of breach and the amount that Agency would have paid Contractor pursuant hereto if Contractor had completed the Work.

## Section 9. KEEPING AND STATUS OF RECORDS.

- **9.1** Records Created as Part of Contractor's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.
- **9.2** <u>Contractor's Books and Records.</u> Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.
- **9.3** Inspection and Audit of Records. Any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.

## 9.4 Confidential Information and Disclosure.

**9.4.1** <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible

medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as Confidential Information in accordance with this section.

- **9.4.2 Non-Disclosure of Confidential Information**. During the term of this Agreement, either party may disclose (the "Disclosing Party") Confidential Information to the other party (the "Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- **9.4.3** <u>Permitted Disclosure.</u> Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
  - **9.4.3.1** Disclosure to employees, affiliates, agents, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.
  - **9.4.3.2** Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and
  - **9.4.3.3** Disclosure by Agency in response to a request pursuant to the California Public Records Act.
- **9.4.4** <u>Handling of Confidential Information</u>. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, affiliates, agents, consultants, contractors

and subcontractors who have a need to know in connection with this Agreement.

### Section 10. PROJECT SITE.

- **10.1** <u>Operations at the Project Site.</u> Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency; if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4; and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish, stemming from or relating to Contractor's Work.</u>
- 10.2 Contractor's Equipment, Tools, Supplies and Materials. Contractor shall be solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work, whether owned, leased or rented. Neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, will be responsible for any such equipment, supplies or materials which may be lost, stolen or damaged or for any additional rental charges for such. Equipment, tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to have been abandoned by the Contractor. Any transportation furnished by Agency or, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall be solely as an accommodation and neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall have liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be new and in good condition.
- **10.3** <u>Use of Agency Equipment.</u> Contractor shall assume the risk and is solely responsible for its use of any equipment owned and property provided by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, for the performance of Work.
- **10.4** Delivery of Equipment to Site. Agency acknowledges and agrees that in order to maintain the Work on schedule, Contractor shall have to right to deliver certain mutually agreed upon equipment, such as the rotor, and other items of the Work to the Site up to four (4) weeks before Contractor arrives on Site to complete the Work on a mutually agreed upon date. If Agency has available space to properly

store such mutually agreed upon deliveries, Agency will store such equipment and items at the Site, without charge to Contractor, although Contractor must maintain insurance coverage for equipment sent to Agency's site prior to initiating Work to install the equipment on site.

### Section 11. WARRANTY.

- **11.1** <u>Nature of Work.</u> Contractor warrants that all Work shall be free from defects in design and workmanship, and that Contractor shall perform all Work in accordance with applicable federal, state, and local laws, rules and regulations including engineering, construction and other codes and standards and prudent electrical utility standards, and in accordance with the terms of this Agreement and applicable Purchase Order(s) entered into hereunder.
- **11.2** <u>Deficiencies in Work.</u> Agency shall have the right to require, and Contractor shall be obligated at its own expense to perform, all further Work which may be required to correct any deficiencies which result from Contractor's failure to perform any Work in accordance with the requirements of this Agreement. If during the term of this Agreement or the one (1) year period following completion of the Work, any equipment, supplies or other materials or Work used or provided by Contractor under this Agreement fails due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable written notice from Agency, replace or repair the same to conform to the requirements of this Agreement and applicable Purchase Order(s) entered into hereunder.
- **11.3** <u>Assignment of Warranties.</u> To the extent they are assignable, Contractor hereby assigns to Agency all additional warranties, extended warranties, or benefits like warranties, such as insurance, provided by or reasonably obtainable from suppliers of equipment and material used in the Work.
- 11.4 Limitation of Warranties. These warranties and remedies are conditioned upon (a) the proper storage (except by Contractor or its subcontractors), installation (except by Contractor or its subcontractors), operation, and maintenance and conformance with the proper operation instruction manuals provided by Contractor or its suppliers or subcontractors, (b) Agency keeping records of operation and maintenance during the warranty period and providing Contractor access to those records, and (c) modification or repair of Work performed only by Contractor or a third party authorized by Contractor in writing. Contractor does not warrant Work, or any repaired or replacement parts against normal wear and tear or damage caused by damage in transit (except by Contractor or its subcontractors), misuse, negligence, accident, or use against the advice of Contractor. Any modification or repair of any Work not authorized by Contractor, where modification and repair does not include maintenance, shall render the warranty null and void. THE WARRANTIES PROVIDED IN THIS SECTION 11 OF THIS AGREEMENT ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL, IMPLIED OR STATUTORY,

# INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

**Section 12. HEALTH AND SAFETY PROGRAMS.** The Contractor shall establish, maintain, and enforce safe work practices, and implement an accident/incident prevention program intended to ensure safe and healthful operations under their direction. The program shall include all requisite components of such a program under Federal, State and local regulations and shall comply with all site programs established by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4.

- **12.1** Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.
- **12.2** Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.
- **12.3** Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
- **12.4** Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.
- **12.5** Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of all written accident reports, and coordinate with Agency if further investigation is requested.
- **12.6** Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.
- **12.7** Contractor shall develop a plan to properly handle and dispose of any hazardous wastes, if any, Contractor generates in performing the Work.

- **12.8** Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.
- **12.9** Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials shall include diesel fuel used for trucks owned or leased by the Contractor.
- **12.10** If Contractor is providing Work to an Agency Member, SCPPA or SCPPA member (collectively "Member" solely for the purpose of this section) pursuant to Section 1.4 hereof, then that Member shall have the same rights as the Agency under Sections 12.1, 12.2, 12.4, 12.5, and 12.6 hereof.

#### Section 13. MISCELLANEOUS PROVISIONS.

- **13.1** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **13.2** <u>Venue.</u> In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- **13.3** <u>Severability.</u> If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- **13.4** <u>No Implied Waiver of Breach.</u> The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- **13.5** <u>Successors and Assigns.</u> The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- **13.6** <u>Conflict of Interest.</u> Contractor may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Contractor shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* 

- **13.7** <u>Contract Administrator.</u> This Agreement shall be administered by the Assistant General Manager, Generation Services, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- **13.8** <u>Notices.</u> Any written notice to Contractor shall be sent to:

Darrell Hoffman, President Reliable Turbine Services LLC 858 Acid Mine Road Sullivan, MO 63080

With a copy to:

Ohashi & Horn LLP Attn: Cody A. Kachel 325 N. St. Paul Street, Suite 4400 Dallas, TX 75201

Any written notice to Agency shall be sent to:

Randy S. Howard General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane E. Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

- **13.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- **13.10** <u>Integration; Incorporation.</u> This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Contractor and supersedes all prior negotiations, representations, or

agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.

- **13.11** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Contractor agree to resolve the dispute in accordance with the following:
  - **13.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
  - **13.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
  - **13.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
  - **13.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
  - **13.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
  - **13.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq*.
- **13.12** <u>Controlling Provisions</u>. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Contractor's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Contractor's Proposal, the Purchase Order shall control.
- **13.13** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- **13.14** <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with

legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.

**13.15** <u>No Third Party Beneficiaries.</u> This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

RELIABLE TURBINE SERVICES LLC

Date\_\_\_\_\_

Date\_\_\_\_\_

RANDY S. HOWARD, General Manager **DARRELL HOFFMAN**, President

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

## EXHIBIT A

### SCOPE OF WORK

Reliable Turbine Services LLC ("Contractor") shall provide inspection and maintenance services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by Agency (except Lodi Energy Center), NCPA Members, Southern California Public Power Authority (SCPPA) or SCPPA members.

Services to include, but not be limited to the following:

- Compressor inspections
- Steam Turbines inspections
- Major turbine inspections
- Process pumps and compressors
- Turbine overhaul and valve maintenance
- Field machining and Millwright services
- Propose resource requirements for maintenance outages
- Crane support and operation
- Project management, turbine tooling kits, and transportation of all equipment
- Provide senior technical advisors and support packages as required.

No project under this Agreement shall include Work that would qualify as a Public Works Project under the California Public Contract Code.

## EXHIBIT B

## COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all work, including hourly fees and expenses, shall not exceed the amount set forth in Section 2 hereof. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

[T&M Rate Sheet

Pricing for services to be performed at NCPA Member or SCPPA locations will be quoted at the time services are requested.

NOTE: As a public agency, NCPA shall not reimburse Contractor for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

### NOT APPLICABLE

## **EXHIBIT C**

## CERTIFICATION

### Affidavit of Compliance for Contractors

١,

#### (Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

Reliable Turbine Services LLC

(Company name)

for contract work at:

#### LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20 \_\_\_\_\_.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

## NOT APPLICABLE

# EXHIBIT D

## CERTIFICATION

## Affidavit of Compliance for Hazardous Materials Transport Vendors

I, \_\_\_\_\_

(Name of person signing affidavit)(Title)

do hereby certify that the below-named company has prepared and implemented security plans in conformity with 49 CFR 172, subpart I and has conducted employee background investigations in conformity with 49 CFR 172.802(a), as the same may be amended from time to time,

(Company name)

for hazardous materials delivery to:

LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20 \_\_\_\_,

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

#### NOT APPLICABLE

#### EXHIBIT E

#### ATTACHMENT A [from MLA] AGREEMENT TO BE BOUND

#### MAINTENANCE LABOR AGREEMENT ATTACHMENT LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

- 1) It is an Employer as that term is defined in Section 1.4 of the Lodi Energy Center Project Maintenance Labor Agreement ("Agreement" solely for the purposes of this Exhibit E) because it has been, or will be, awarded a contract or subcontract to assign, award or subcontract Covered Work on the Project (as defined in Section 1.2 and 2.1 of the Agreement), or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.
- 2) In consideration of the award of such contract or subcontract, and in further consideration of the promises made in the Agreement and all attachments thereto (a copy of which was received and is hereby acknowledged), it accepts and agrees to be bound by the terms and condition of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- 3) If it performs Covered Work, it will be bound by the legally established trust agreements designated in local master collective bargaining agreements, and hereby authorizes the parties to such local trust agreements to appoint trustees and successor trustee to administer the trust funds, and hereby ratifies and accepts the trustees so appointed as if made by the undersigned.
- 4) It has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of the Agreement.
- 5) It will secure a duly executed Agreement to be Bound, in form identical to this documents, from any Employer(s) at any tier or tiers with which it contracts to assign, award, or subcontract Covered Work, or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.

DATED:	Name of Employer
--------	------------------

(Authorized Officer & Title)

(Address)

Multi-Task General Services Agreement between Northern California Power Agency and Reliable Turbine Services LLC. Rev'd 7/9/2019



# Commission Staff Report – DRAFT

### COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** Quantum Spatial, Inc. dba NV5 Geospatial, Inc. – First Amendment to Five Year Multi-Task General Services Agreement for Transmission and Distribution Line Modeling and Inspection Related Services; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

#### AGENDA CATEGORY: Consent

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	If other, please describe:
Department:	Hydroelectric	

IMPACTED MEMBERS:			
All Members	City of Lodi	City of Shasta Lake	
Alameda Municipal Power	City of Lompoc	City of Ukiah	
San Francisco Bay Area Rapid Transit	City of Palo Alto	Plumas-Sierra REC	
City of Biggs	City of Redding	Port of Oakland	
City of Gridley	City of Roseville	Truckee Donner PUD	
City of Healdsburg	City of Santa Clara	Other	
	If other, please specify		

#### **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Quantum Spatial, Inc. dba NV5 Geospatial, Inc. for transmission and distribution line modeling and inspection related services, with any non-substantial changes recommended and approved by the NCPA General Counsel, accepting assignment to NV5 Geospatial, Inc., with no change to the not to exceed amount or contract term, for continued use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

#### BACKGROUND:

Transmission and distribution line modeling and inspection related services, including vegetation surveys, aerial surveys, LiDAR mapping and analytics, drafting and other misc. related mapping tasks, are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. NCPA entered into a five year Multi-Task General Services Agreement with Quantum Spatial, Inc. dba NV5 Geospatial, Inc. effective April 29, 2021, for use at all NCPA, NCPA Member, SCPPA, and SCPPA Member facilities.

Effective November 8, 2022, Quantum Spatial, Inc. dba NV5 Geospatial, Inc. changed their name to NV5 Geospatial, Inc. NCPA now desires to enter into a First Amendment to the Multi-Task General Services Agreement accepting assignment to NV5 Geospatial, Inc.

#### FISCAL IMPACT:

Upon execution, the total not to exceed amount of the agreement will remain unchanged at not to exceed \$2,000,000. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

#### **SELECTION PROCESS:**

This five year contract does not commit NCPA to any expenditure of funds. When these services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA has two agreements with GEI Consultants and GHD, Inc., however, they subcontract the work to NV5 Geospatial, Inc. NCPA seeks bids from as many qualified providers as possible and enter into additional enabling agreements as needed. The bid is awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

#### **ENVIRONMENTAL ANALYSIS:**

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

#### COMMITTEE REVIEW:

On January 3, 2024, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

On January 8, 2024, the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (3):

- Resolution 24-XX
- Multi-Task General Services Agreement with Quantum Spatial, Inc. dba NV5 Geospatial, Inc.
- First Amendment to Multi-Task General Services Agreement with Quantum Spatial, Inc. dba NV5 Geospatial, Inc. Accepting Assignment to NV5 Geospatial, Inc.

#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A FIRST AMENDMENT TO THE MULTI-TASK GENERAL SERVICES AGREEMENT WITH QUANTUM SPATIAL, INC. DBA NV5 GEOSPATIAL, INC. ACCEPTING ASSIGNMENT TO NV5 GEOSPATIAL, INC.

#### (reference Staff Report #XXX:24)

WHEREAS, Northern California Power Agency (NCPA) and Quantum Spatial, Inc. dba NV5 Geospatial, Inc. entered into a Multi-Task General Services Agreement effective April 29, 2021, for Quantum Spatial, Inc. dba NV5 Geospatial, Inc. to provide transmission and distribution line modeling and inspection related services, including vegetation surveys, LiDAR mapping and analytics, drafting and other misc. related mapping tasks, for use at any facilities owned and/or operated by NCPA, NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, effective November 8, 2022, Quantum Spatial, Inc. dba NV5 Geospatial, Inc. changed their name to NV5 Geospatial, Inc.

WHEREAS, NCPA now desires to enter into a First Amendment to the Multi-Task General Services Agreement accepting assignment to NV5 Geospatial, Inc.; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into First Amendment to the Multi-Task General Services Agreement with Quantum Spatial, Inc. dba NV5 Geospatial, Inc., with any non-substantial changes recommended and approved by the NCPA General Counsel, accepting assignment to NV5 Geospatial, Inc., with no change to the not to exceed amount or contract term, for continued use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members

PASSED, ADOPTED and APPROVED this	day of	, 2024 by the following vote
on roll call:		

	Vote	Abstained	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

CARRIE POLLO ASSISTANT SECRETARY



#### MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND QUANTUM SPATIAL, INC. dba NV5 GEOSPATIAL, INC.

This Multi-Task General Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Quantum Spatial, Inc. d/b/a NV5 Geospatial, a corporation with its office located at 10033 MLK Street N, Ste. 200, St. Petersburg, FL 33716 ("Contractor") (together sometimes referred to as the "Parties") as of  $200^{-1}$  2021 ("Effective Date") in Roseville, California.

**Section 1. SCOPE OF WORK**. Subject to the terms and conditions set forth in this Agreement, Contractor is willing to provide to Agency the range of services and/or goods described in the Scope of Work attached hereto as Exhibit A and incorporated herein ("Work").

- **1.1** <u>**Term of Agreement.**</u> The term of this Agreement shall begin on the Effective Date and shall end when Contractor completes the Work, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.
- **1.2 Standard of Performance.** Contractor shall perform the Work in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged and for which Contractor is providing the Work. Contractor represents that it is licensed, qualified and experienced to provide the Work set forth herein.
- **1.3** <u>Assignment of Personnel.</u> Contractor shall assign only competent personnel to perform the Work. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Contractor shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- **1.4** <u>Work Provided.</u> Work provided under this Agreement by Contractor may include Work directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.
- **1.5 Request for Work to be Performed.** At such time that Agency determines to have Contractor perform Work under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific Work to be performed ("Requested Work"), may include a not-to-exceed cap on monetary cap on Requested Work and all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Work shall be completed. Contractor shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Contractor chooses not to perform the Requested Work. If Contractor agrees to perform the Requested Work, begins to perform the Requested Work, or does not respond within the seven day period specified, then Contractor will have

agreed to perform the Requested Work on the terms set forth in the Purchase Order, this Agreement and its Exhibits.

<u>Section 2.</u> <u>COMPENSATION.</u> Agency hereby agrees to pay Contractor an amount NOT TO EXCEED two million dollars (\$2,000,000) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

- **2.1** <u>Invoices.</u> Contractor shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:
  - The beginning and ending dates of the billing period;
  - Work performed;
  - The Purchase Order number authorizing the Requested Work;
  - At Agency's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction;
  - At Agency's option, the total number of hours of work performed under the Agreement by Contractor and each employee, agent, and subcontractor of Contractor performing work hereunder.

Invoices shall be sent to:

Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Attn: Accounts Payable <u>AcctsPayable@ncpa.com</u>

- **2.2** <u>Monthly Payment.</u> Agency shall make monthly payments, based on invoices received, for Work satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Contractor.
- **2.3 Payment of Taxes.** Contractor is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.
- **2.4** <u>Authorization to Perform Work.</u> The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

2.5 <u>Timing for Submittal of Final Invoice.</u> Contractor shall have ninety (90) days after completion of the Requested Work to submit its final invoice for the Requested Work. In the event Contractor fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Contractor is deemed to have waived its right to collect its final payment for the Requested Work from Agency.

**Section 3. FACILITIES AND EQUIPMENT.** Except as set forth herein, Contractor shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Work.

**Section 4. INSURANCE REQUIREMENTS.** Before beginning any Work under this Agreement, Contractor, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

**4.1** <u>Workers' Compensation.</u> If Contractor employs any person, Contractor shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Contractor with limits of not less than one million dollars (\$1,000,000.00) per accident.

## 4.2 Commercial General and Automobile Liability Insurance.

- **4.2.1** <u>Commercial General Insurance</u>. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- **4.2.2 Automobile Liability.** Contractor shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Contractor, on or off Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.
- **4.2.3** <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.

- **4.2.4** <u>Aircraft Liability Insurance.</u> Contractor shall maintain aircraft liability insurance, covering both owned and non-owned aircraft, in connection with performance of work under this Agreement in an amount for combined single limit for bodily injury, property damage and passengers of not less than Five Million Dollars (\$5,000,000.00).
- 4.3 **Professional Liability Insurance.** Contractor shall maintain professional liability insurance appropriate to Contractor's profession performing work in connection with this Agreement in an amount not less than one million dollars (\$1,000,000) and two million dollars (\$2,000,000) aggregate covering the Contractor's errors and omissions. Any deductible or self-insured retention shall not exceed two hundred fifty thousand dollars (\$250,000.00) per claim. Such insurance shall be on a "claims-made" basis, subject to the following conditions: (1) the retroactive date of the policy shall be on or before the Effective Date of this Agreement; (2) the policy shall be maintained for at least five (5) years after completion of the Services and, if requested by Agency, evidence of coverage shall be provided during this period; and (3) if, within five (5) years of completion of the Services. coverage is canceled or non-renewed, and not replaced with another claimsmade policy form with a retroactive date prior to the Effective Date of this Agreement, Consultant shall purchase "extended reporting" coverage for a minimum of five (5) years after completion of the Services and, if requested by Agency, provide evidence of coverage during this period.
- 4.4 **Pollution Insurance.** Intentionally omitted.

## 4.5 <u>All Policies Requirements.</u>

- **4.5.1** <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2 and in Section 4.4, if applicable, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
- **4.5.2** <u>Notice of Reduction in or Cancellation of Coverage.</u> Contractor shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
- **4.5.3** <u>Higher Limits.</u> If Contractor maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Contractor.
- **4.5.4** Additional Certificates and Endorsements. If Contractor performs Work for Agency members, SCPPA and/or SCPPA members pursuant to this Agreement, Contractor shall provide the certificates of insurance and policy endorsements, as referenced in Section 4.5.1, naming the specific

Agency member, SCPPA and/or SCPPA member for which the Work is to be performed.

- **4.5.5** <u>Waiver of Subrogation.</u> Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Contractor, its employees, agents and subcontractors.
- **4.6** <u>**Contractor's Obligation.**</u> Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Work are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Contractor shall also ensure that all workers involved in the provision of Work are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

#### Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

- **5.1** <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Contractor acknowledges and agrees to the provisions of this section and that it is a material element of consideration.
- **5.2 Scope.** Contractor shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against any and all claims to the extent that the claims arise out of, pertain to or relate to the negligence, recklessness or willful misconduct of the Contractor in its performance of Work under this Agreement. Contractor shall bear all losses, costs, damages, expense and liability of every kind, nature and description to the extent that they arise out of, pertain to, or relate to such claims, whether directly or indirectly ("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the negligence, active negligence, or willful misconduct of the Agency.

In no event shall either party or any of its representatives be liable under this agreement to the other party or any third party for any liquidated, consequential, incidental, indirect, exemplary, special or punitive damages, including any damages for business interruption, loss of use, data, revenue or profit, whether arising out of breach of contract, tort (including negligence) or otherwise,

regardless of whether such damages were foreseeable and whether or not the breaching party was advised of the possibility of such damages.

Additionally, Contractor's total liability to the Agency for any and all claims or disputes arising against Contactor shall not exceed the amount of insurance described in Section 4 of this Agreement.

#### Section 6. STATUS OF CONTRACTOR.

6.1 Independent Contractor. Contractor is an independent contractor and not an employee of Agency. Agency shall have the right to control Contractor only insofar as the results of Contractor's Work and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Contractor accomplishes Work rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contributions for PERS benefits.

Contractor shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Contractor and Agency acknowledge and agree that compensation paid by Agency to Contractor under this Agreement is based upon Contractor's estimated costs of providing the Work, including salaries and benefits of employees, agents and subcontractors of Contractor.

Contractor shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Contractor's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Contractor agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Contractor shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Contractor.

- **6.2** <u>Contractor Not Agent.</u> Except as Agency may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- 6.3 Assignment and Subcontracting. This Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Contractor. Contractor may not assign this Agreement or any interest therein without the prior written approval of the Agency. Contractor shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Contractor shall supervise all work subcontracted by Contractor in performing the Work and shall be responsible for all work performed by a subcontractor as if Contractor itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Contractor from any of its obligations under this Agreement with respect to the Work and Contractor is obligated to ensure that any and all subcontractors performing any Work shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.
- 6.4 <u>Certification as to California Energy Commission.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit C.
- 6.5 <u>Certification as to California Energy Commission Regarding Hazardous</u> <u>Materials Transport Vendors.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit D.
- 6.6 <u>Maintenance Labor Agreement.</u> If the Work is subject to the terms of one or more Maintenance Labor Agreements, which are applicable only to certain types of construction, repair and/or maintenance projects, then Contractor shall execute Exhibit E and/or similar documentation as to compliance.

## Section 7. LEGAL REQUIREMENTS.

- **7.1** <u>**Governing Law.**</u> The laws of the State of California shall govern this Agreement.
- **7.2** <u>Compliance with Applicable Laws.</u> Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- **7.3** <u>Licenses and Permits.</u> Contractor represents and warrants to Agency that Contractor and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses,

permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.

- **7.4** <u>Monitoring by DIR.</u> The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- **7.5** <u>**Registration with DIR.**</u> During the term of this Agreement, Contractor warrants that it is registered with the Department of Industrial Relations and qualified to perform Work consistent with Labor Code section 1725.5.
- 7.6 Prevailing Wage Rates. In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work as provided in the California Labor Code must be paid to all workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed; the Agency has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the project; and copies of the prevailing rate of per diem wages are on file at the Agency and will be made available on request. Throughout the performance of the Work, Contractor must comply with all applicable laws and regulations that apply to wages earned in performance of the Work. Contractor assumes all responsibility for such payments and shall defend. indemnify and hold the Agency harmless from any and all claims made by the State of California, the Department of Industrial Relations, any subcontractor, any worker or any other third party with regard thereto.

Additionally, in accordance with the California Administrative Code, Title 8, Group 3, Article 2, Section 16000, Publication of Prevailing Wage Rates by Awarding Bodies, copies of the applicable determination of the Director can be found on the web at: http://www.dir.ca.gov/DLSR/PWD/ and may be reviewed at any time.

Contractor shall provide a certified copy of its payroll, on forms to be determined by the Agency and consistent with the Labor Code, within ten (10) days of the Contractor's receipt of Agency's written request therefor. Contractor's failure to timely comply with this provision may subject the Contractor to penalties pursuant to state law.

Contractor shall comply with applicable law, including Labor Code Sections 1774 and 1775. In accordance with Section 1775, Contractor shall forfeit as a penalty to Agency \$200.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for such work or craft in which such worker is employed for any Work done under the Agreement by Contractor or by any subcontractor under Contractor in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 *et seq.* In addition to the penalty and pursuant to Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

#### Section 8. TERMINATION AND MODIFICATION.

8.1 <u>Termination.</u> Agency may cancel this Agreement at any time and without cause upon ten (10) days' prior written notice to Contractor. If Contractor and Agency agree that Contractor has no outstanding Requested Work under any Purchase Orders, Contractor may cancel this Agreement without cause upon ten (10) days' prior written notice to Agency.

In the event of termination, Contractor shall be entitled to compensation for Work satisfactorily completed as of the effective date of termination; Agency, however, may condition payment of such compensation upon Contractor delivering to Agency any or all records or documents (as referenced in Section 9.1 hereof).

- **8.2** <u>Amendments.</u> The Parties may amend this Agreement only by a writing signed by both of the Parties.
- **8.3 Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.
- **8.4** Options upon Breach by Contractor. If Contractor materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
  - 8.4.1 Immediately terminate the Agreement;
  - **8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Contractor pursuant to this Agreement;
  - **8.4.3** Retain a different Contractor to complete the Work not finished by Contractor; and/or
  - **8.4.4** Charge Contractor the difference between the costs to complete the Work that is unfinished at the time of breach and the amount that Agency would have paid Contractor pursuant hereto if Contractor had completed the Work.

#### Section 9. KEEPING AND STATUS OF RECORDS.

**9.1** <u>**Records Created as Part of Contractor's Performance.**</u> All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans,

studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.

- **9.2** <u>Contractor's Books and Records.</u> Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.
- **9.3 Inspection and Audit of Records.** Any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying with at least five (5) business days' notice during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.

## 9.4 <u>Confidential Information and Disclosure.</u>

- **9.4.1** <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as Confidential Information in accordance with this section.
- **9.4.2** <u>Non-Disclosure of Confidential Information</u>. During the term of this Agreement, either party may disclose (the "Disclosing Party") Confidential Information to the other party (the "Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.

- **9.4.3 Permitted Disclosure.** Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
  - **9.4.3.1** Disclosure to employees, agents, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.
  - **9.4.3.2** Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and
  - **9.4.3.3** Disclosure by Agency in response to a request pursuant to the California Public Records Act.
- **9.4.4** <u>Handling of Confidential Information</u>. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

#### Section 10. PROJECT SITE.

**10.1** Operations at the Project Site. Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency; if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4; and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish, stemming from or relating to Contractor's Work.

- 10.2 Contractor's Equipment, Tools, Supplies and Materials. Contractor shall be solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work. whether owned, leased or rented. Neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, will be responsible for any such equipment, supplies or materials which may be lost. stolen or damaged or for any additional rental charges for such. Equipment. tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to have been abandoned by the Contractor. Any transportation furnished by Agency or, if applicable, the entity for which Contractor is performing the Work. as referenced in Section 1.4, shall be solely as an accommodation and neither Agency nor, if applicable, the entity for which Contractor is performing the Work. as referenced in Section 1.4, shall have liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be new and in good condition.
- **10.3** <u>Use of Agency Equipment.</u> Contractor shall assume the risk and is solely responsible for its use of any equipment owned and property provided by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, for the performance of Work.

## Section 11. WARRANTY.

- **11.1** <u>Nature of Work.</u> In addition to any and all warranties provided or implied by law or public policy, Contractor warrants that all Work shall be free from defects in design and workmanship, and that Contractor shall perform all Work in accordance with applicable federal, state, and local laws, rules and regulations including engineering, construction and other codes and standards and prudent electrical utility standards, and in accordance with the terms of this Agreement.
- **11.2** <u>Deficiencies in Work.</u> In addition to all other rights and remedies which Agency may have, Agency shall have the right to require, and Contractor shall be obligated at its own expense to perform, all further Work which may be required to correct any deficiencies which result from Contractor's failure to perform any Work in accordance with the standards required by this Agreement. If during the term of this Agreement or the one (1) year period following completion of the Work, any equipment, supplies or other materials or Work used or provided by Contractor under this Agreement fails due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable written notice from Agency, replace or repair the same to Agency's satisfaction.

**11.3** <u>Assignment of Warranties.</u> Contractor hereby assigns to Agency all additional warranties, extended warranties, or benefits like warranties, such as insurance, provided by or reasonably obtainable from suppliers of equipment and material used in the Work.

<u>Section 12.</u> <u>HEALTH AND SAFETY PROGRAMS.</u> The Contractor shall establish, maintain, and enforce safe work practices, and implement an accident/incident prevention program intended to ensure safe and healthful operations under their direction. The program shall include all requisite components of such a program under Federal, State and local regulations and shall comply with all site programs established by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4.

- **12.1** Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.
- **12.2** Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.
- **12.3** Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
- **12.4** Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.
- **12.5** Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of all written accident reports, and coordinate with Agency if further investigation is requested.
- **12.6** Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.

- **12.7** Contractor shall develop a plan to properly handle and dispose of any hazardous wastes, if any, Contractor generates in performing the Work.
- **12.8** Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.
- **12.9** Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials shall include diesel fuel used for trucks owned or leased by the Contractor.
- **12.10** If Contractor is providing Work to an Agency Member, SCPPA or SCPPA member (collectively "Member" solely for the purpose of this section) pursuant to Section 1.4 hereof, then that Member shall have the same rights as the Agency under Sections 12.1, 12.2, 12.4, 12.5, and 12.6 hereof.

#### Section 13. MISCELLANEOUS PROVISIONS.

- **13.1** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **13.2** <u>Venue.</u> In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- **13.3** <u>Severability.</u> If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- **13.4** <u>No Implied Waiver of Breach.</u> The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- **13.5** <u>Successors and Assigns.</u> The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- **13.6** <u>Conflict of Interest.</u> Contractor may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined

in the Political Reform Act, codified at California Government Code Section 81000 *et seq.* 

Contractor shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* 

- **13.7** <u>Contract Administrator.</u> This Agreement shall be administered by Joel Ledesma, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- **13.8 Notices.** Any written notice to Contractor shall be sent to:

Jennifer Whitacre Senior Director of Strategic Accounts Quantum Spatial, Inc. d/b/a/ NV5 Geospatial 5 Blackhawk Club Court Danville, CA 94506

With a copy to:

Richard Tong General Counsel Quantum Spatial, Inc. d/b/a NV5 Geospatial 200 S Park Road, Suite 350 Hollywood, FL 33021

Any written notice to Agency shall be sent to:

Randy S. Howard General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane E. Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

**13.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page
of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.

- **13.10** Integration; Incorporation. This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- **13.11** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Contractor agree to resolve the dispute in accordance with the following:
  - **13.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
  - **13.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
  - **13.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
  - **13.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
  - **13.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
  - **13.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*
- **13.12** <u>Controlling Provisions</u>. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Contractor's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Contractor's Proposal, the Purchase Order shall control.

- **13.13** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- **13.14** <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- **13.15** <u>No Third Party Beneficiaries.</u> This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

Date

RANDY S. HOWARD, General Manager

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

QUANTUM SPATIAL, INC dba NV5 GEOSPATIAL

Date

ERIC H. MERTEN, VP & General Manager of Commercial Markets

## **EXHIBIT A**

## **SCOPE OF WORK**

Quantum Spatial, Inc. dba NV5 Geospatial ("Contractor") shall provide the following services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by the Agency, its Members, SCPPA, or SCPPA Members, including:

- Transmission and Distribution Line Modeling and Inspection;
- Vegetation Surveys;
- Aerial Surveys;
- LiDAR Mapping and Analytics;
- Drafting; and
- Other Misc. Mapping Tasks.

## EXHIBIT B

#### **COMPENSATION SCHEDULE AND HOURLY FEES**

Compensation for all work, including hourly fees and expenses, shall not exceed the amount set forth in Section 2 hereof. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

C

## quantumSPATIAL

Position	Hourly Rate
GeoContractor	\$50
Technician	\$85
Analyst	\$99
Senior Analyst	\$110
Lead Analyst	\$121
Associate Team Leader	\$120
Team Lead	\$151
Solutions Developer	\$165
Technical Specialist	\$139
Project Manager	\$157
Technical Expert	\$186
Program Manager	\$204
Administrative Assistant	\$91
Acquisition Field Surveyor	\$89
Acquisition Survey Analyst	\$113
Acquisition Field Manager	\$172
Acquisition Project Coordinator	\$124
Acquisition Operations Manager	\$226
Acquisition Sensor Operator	\$97
Acquisition Pilot	\$125
IND Technician	\$14
IND Analyst	\$20
IND Technical Specialist	\$38
IND Production Manager	\$135
IND Director	\$192

**Quantum Spatial Rate Card 2021** 

	Equipment Rates by U	nit
	linit	Houriy
	Twin Turbine	\$1,855
	Single Engine Turbine	\$1,161
	Twin Piston	\$1,024
Ī	1560i	\$1,476
	1560il	\$1,476
Ì	ALS 80	\$782
Ī	Riegl 880-Gii (Topobathy)	\$1,774
Ī	Leica Chiroptera	\$1,935
	Leica HawkEye	\$1,452
	Vexcel Ultracam	\$1,266
	ADS 100	\$1,347
	CLASS	\$1,290
	CASI 1500	\$1,532
	FLIR	\$903
	Headwall Hyperspec	\$806
	Optech Orion C / VQ-480i / Midar	\$806
	Mobile Mapper	\$806
	Phase One Digital Camera	\$161

Pricing for services to be performed at NCPA Member or SCPPA locations will be quoted at the time services are requested.

NOTE: As a public agency, NCPA shall not reimburse Contractor for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

#### **EXHIBIT C**

#### CERTIFICATION

## Affidavit of Compliance for Contractors

١, Eric

(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of Quantum Spatial, Inc. dba NV5 Geospatial

(Company name)

for contract work at:

## LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.
(Signature of officer or agent)
Dated this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20 2.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

Multi-Task General Services Agreement between Northern California Power Agency and Quantum Spatial, Inc. dba NV5 Geospatial Rev'd 7/9/2019

GS-VEN-2021-006

Page 20 of 22

## EXHIBIT D – NOT APPLICABLE

## CERTIFICATION

## Affidavit of Compliance for Hazardous Materials Transport Vendors

(Name of person signing affidavit)(Title)

I, \_\_\_\_\_

do hereby certify that the below-named company has prepared and implemented security plans in conformity with 49 CFR 172, subpart I and has conducted employee background investigations in conformity with 49 CFR 172.802(a), as the same may be amended from time to time,

(Company name)

for hazardous materials delivery to:

#### LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20 \_\_\_\_,

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

#### EXHIBIT E

#### ATTACHMENT A [from MLA] AGREEMENT TO BE BOUND

#### MAINTENANCE LABOR AGREEMENT ATTACHMENT LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

- 1) It is an Employer as that term is defined in Section 1.4 of the Lodi Energy Center Project Maintenance Labor Agreement ("Agreement" solely for the purposes of this Exhibit E) because it has been, or will be, awarded a contract or subcontract to assign, award or subcontract Covered Work on the Project (as defined in Section 1.2 and 2.1 of the Agreement), or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.
- 2) In consideration of the award of such contract or subcontract, and in further consideration of the promises made in the Agreement and all attachments thereto (a copy of which was received and is hereby acknowledged), it accepts and agrees to be bound by the terms and condition of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- 3) If it performs Covered Work, it will be bound by the legally established trust agreements designated in local master collective bargaining agreements, and hereby authorizes the parties to such local trust agreements to appoint trustees and successor trustee to administer the trust funds, and hereby ratifies and accepts the trustees so appointed as if made by the undersigned.
- 4) It has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of the Agreement.
- 5) It will secure a duly executed Agreement to be Bound, in form identical to this documents, from any Employer(s) at any tier or tiers with which it contracts to assign, award, or subcontract Covered Work, or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.

DATED:

Name of Employer

Ouantum Spatial, Inc dba NV5 Geospatial

Authorized Officer & Title) Address

GS-VEN-2021-006



#### FIRST AMENDMENT TO MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND QUANTUM SPATIAL, INC. dba NV5 GEOSPATIAL, INC. ACCEPTING ASSIGNMENT TO NV5 GEOSPATIAL, INC.

This First Amendment ("Amendment") to Multi-Task General Services Agreement is entered into by and between the Northern California Power Agency ("Agency") and NV5 Geospatial, Inc. ("Contractor") (collectively referred to as "the Parties") as of \_\_\_\_\_\_, 202\_.

WHEREAS, the Agency and Quantum Spatial, Inc. dba NV5 Geospatial, Inc. entered into a Multi-Task General Services Agreement dated effective April 29, 2021, (the "Agreement") for Contractor to provide transmission and distribution line modeling and inspections, vegetation surveys, aerial surveys, LiDAR mapping and analytics, drafting and various other mapping services for the Agency, Agency Members, the Southern California Public Power Authority (SCPPA) or SCPPA Members; and

WHEREAS, effective November 8, 2022, Quantum Spatial, Inc. dba NV5 Geospatial, Inc. has changed their name to NV5 Geospatial, Inc. and the Parties now desire to assign the Agreement to the NV5 Geospatial, Inc.; and

WHEREAS, the Parties now desire to amend Section 13.8 entitled "Notices" of the Agreement to reflect the change of the Contractor's name; and

WHEREAS, the Agency now desires to amend the Exhibit A entitled "Scope of Work" of the Agreement to reflect the change of the Contractor's name; and

WHERAS, the Parties now desire to amend Exhibit C entitled "Affidavit of Compliance for Contractors" of the Agreement to reflect the change of the Contractor's name; and

WHEREAS, the Agency now desires to amend Exhibit E – Maintenance Labor Agreement Attachment Lodi Energy Center Project to reflect it is not applicable for the work performed under this agreement; and

WHEREAS, the Parties and Quantum Spatial, Inc. dba NV5 Geospatial, Inc. agree to the assignment of the Agreement to NV5 Geospatial, Inc.; and

WHEREAS, the Parties have agreed to modify the Agreement as set forth above; and

WHEREAS, in accordance with Section 8.2 all changes to the Agreement must be in writing and signed by all the Parties; and

NOW, THEREFORE, the Parties agree as follows:

1. As of the Amendment Effective Date, the preamble to the Agreement is replaced in its entirely as follows:

First Amendment to Multi-Task General Services Agreement between Northern California Power Agency and Quantum Spatial, Inc. dba NV5 Geospatial, Inc. Accepting Assignment to NV5 Geospatial, Inc. Template 6-8-18

"This Multi-Task General Services Agreement ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and NV5 Geospatial, Inc., a corporation with its office located at 10033 MLK Street N, Ste. 200, St. Petersburg, FL 33716 ("Contractor") (together sometimes referred to as the "Parties") as of April 29, 2021 ("Effective Date") in Roseville, California.

2. Section 13.8 Notices is replaced in its entirety as follows:

**13.8 Notices.** Any written notice to Contractor shall be sent to:

Jennifer Whitacre Senior Director of Strategic Accounts NV5 Geospatial, Inc. 5 Blackhawk Club Court Danville, CA 94506

With a copy to:

Richard Tong General Counsel NV5 Geospatial, Inc. 200 S. Park Road, Suite 350 Hollywood, FL 33021

Any written notice to Agency shall be sent to:

Randy S. Howard General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

- 3. Exhibit A SCOPE OF SERVICES is amended and restated to read in full as set forth in the attached Exhibit A.
- 4. Exhibit C CERTIFICATION Affidavit of Compliance for Contractors is amended to include NV5 Geospatial, Inc. and shall be executed as set forth in the attached Exhibit C.
- 5. Agency hereby approves the name change of the Agreement from Quantum Spatial, Inc. dba NV5 Geospatial, Inc. to NV5 Geospatial, Inc., Contractor.

6. This Amendment in no way alters the terms and conditions of the Agreement except as specifically set forth herein.

Date:\_\_\_\_\_

NORTHERN CALIFORNIA POWER AGENCY

Date:

NV5 GEOSPATIAL, INC.

RANDY S. HOWARD, General Manager REBECCA LASICA, VP of Commercial Sales and Business Development

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

## **EXHIBIT A**

#### SCOPE OF WORK

NV5 Geospatial, Inc. ("Contractor") shall provide the following services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by the Agency, NCPA Members, SCPPA, or SCPPA Members, including:

- Transmission and Distribution Line Modeling and Inspection;
- Vegetation Surveys;
- Aerial Surveys;
- LiDAR Mapping and Analytics;
- Drafting; and
- Other Misc. Mapping Tasks.

## **EXHIBIT C**

## CERTIFICATION

## Affidavit of Compliance for Contractors

(Name of person signing affidavit) (Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

#### NV5 GEOSPATIAL, INC.

(Company name)

for contract work at:

I, \_\_\_\_\_

#### LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_, 20 \_\_\_\_\_,

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

#### EXHIBIT E – NOT APPLICABLE

#### ATTACHMENT A [from MLA] AGREEMENT TO BE BOUND

#### MAINTENANCE LABOR AGREEMENT ATTACHMENT LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

- 1) It is an Employer as that term is defined in Section 1.4 of the Lodi Energy Center Project Maintenance Labor Agreement ("Agreement" solely for the purposes of this Exhibit E) because it has been, or will be, awarded a contract or subcontract to assign, award or subcontract Covered Work on the Project (as defined in Section 1.2 and 2.1 of the Agreement), or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.
- 2) In consideration of the award of such contract or subcontract, and in further consideration of the promises made in the Agreement and all attachments thereto (a copy of which was received and is hereby acknowledged), it accepts and agrees to be bound by the terms and condition of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- 3) If it performs Covered Work, it will be bound by the legally established trust agreements designated in local master collective bargaining agreements, and hereby authorizes the parties to such local trust agreements to appoint trustees and successor trustee to administer the trust funds, and hereby ratifies and accepts the trustees so appointed as if made by the undersigned.
- 4) It has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of the Agreement.
- 5) It will secure a duly executed Agreement to be Bound, in form identical to this documents, from any Employer(s) at any tier or tiers with which it contracts to assign, award, or subcontract Covered Work, or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.

DATED: \_\_\_\_\_ Name of Employer

(Authorized Officer & Title)

(Address)

First Amendment to Multi-Task General Services Agreement between Northern California Power Agency and Quantum Spatial, Inc. dba NV5 Geospatial, Inc. Accepting Assignment to NV5 Geospatial, Inc. Template 6-8-18



# Commission Staff Report – DRAFT

## COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** Western Hydrologics, LLP – Five Year Multi-Task Consulting Services Agreement for Forecasting and Modeling Related Consulting Services; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

### AGENDA CATEGORY: Consent

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	If other, please describe:
Department:	Hydroelectric	

IMPACTED MEMBERS:				
All Members	$\boxtimes$	City of Lodi	City of Shasta Lake	
Alameda Municipal Power		City of Lompoc	City of Ukiah	
San Francisco Bay Area Rapid Transit		City of Palo Alto	Plumas-Sierra REC	
City of Biggs		City of Redding	Port of Oakland	
City of Gridley		City of Roseville	Truckee Donner PUD	
City of Healdsburg		City of Santa Clara	Other	
		If other, please specify		

#### **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with Western Hydrologics, LLP for forecasting and modeling related consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members.

#### BACKGROUND:

Various forecasting and modeling related consulting services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. NCPA has utilized this vendor in the past, and has a good working relationship with this vendor. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. NCPA has an agreement in place for similar services with CBEC Inc, Sierra Hydrologics, WEST Consultants, Inc., and Zanjero, Inc.

#### FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed \$1,000,000 over five years. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

#### SELECTION PROCESS:

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from qualified providers as required. Bids are awarded to the vendor providing the best overall value to NCPA. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

#### ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

#### **COMMITTEE REVIEW:**

Pending Committee review and approval.

AFTER FACILTIES APPROVAL: On January 3, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On January 8, 2024 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

January 18, 2024 Page 3

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 24-XX
- Multi-Task Consulting Services Agreement with Western Hydrologics, LLP

#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK CONSULTING SERVICES AGREEMENT WITH WESTERN HYDROLOGICS, LLP

#### (reference Staff Report XXX:24)

WHEREAS, various forescating and modeling related consulting services are required from time to time for the operation and maintenance of facilities owned and/or operated by the Northern California Power Agency (NCPA), NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, Western Hydrologics, LLP is a provider of these services; and

WHEREAS, the NCPA Commission has reviewed the Multi-Task Consulting Services Agreement with Western Hydrologics, LLP to provide such services as needed at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into said Multi-Task Consulting Services Agreement, with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

PASSED, ADOPTED and APPROVED this _	day of	, 2024 by the following vote
on roll call:		

	<u>Vote</u>	Abstained	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR

ATTEST:

CARRIE POLLO ASSISTANT SECRETARY



#### MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND WESTERN HYDROLOGICS, LLP

This Consulting Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Western Hydrologics, LLP, a partnership with its office located at 610 Auburn Ravine Road, Suite C, (P.O. Box 7192), CA 95604 ("Consultant") (together sometimes referred to as the "Parties") as of \_\_\_\_\_\_, 20\_\_ ("Effective Date") in Roseville, California.

**Section 1. SERVICES**. Subject to the terms and conditions set forth in this Agreement, Consultant shall provide to Agency the services described in the Scope of Services attached hereto as Exhibit A and incorporated herein ("Services"), at the time and place and in the manner specified therein.

- **1.1** <u>**Term of Agreement.**</u> The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later than five (5) year from the date this Agreement was signed by Agency, whichever is shorter.
- **1.2 Standard of Performance.** Consultant shall perform the Services in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged and for which Consultant is providing the Services. Consultant represents that it is licensed, qualified and experienced to provide the Services set forth herein.
- **1.3** <u>Assignment of Personnel.</u> Consultant shall assign only competent personnel to perform the Services. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Consultant shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- **1.4** <u>Services Provided.</u> Services provided under this Agreement by Consultant may include Services directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.
- **1.5** <u>**Request for Services.**</u> At such time that Agency determines to use Consultant's Services under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific services to be performed ("Requested Services"), may include a not-to-exceed monetary cap on Requested Services and expenditures authorized by that Purchase Order, and a time by which the Requested Services shall be completed. Consultant shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Consultant chooses not to perform the Requested Services. If Consultant agrees to perform the Requested Services, begins to perform the Requested Services, or does not respond within the seven day

period specified, then Consultant will have agreed to perform the Requested Services on the terms set forth in the Purchase Order, this Agreement and its Exhibits.

<u>Section 2.</u> <u>COMPENSATION.</u> Agency hereby agrees to pay Consultant an amount NOT TO EXCEED ONE MILLION dollars (\$1,000,000.00) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

- **2.1** <u>**Invoices.**</u> Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:
  - The beginning and ending dates of the billing period;
  - Services performed;
  - The Purchase Order number authorizing the Services;
  - At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder; and
  - At Agency's option, when the Consultant's Scope of Work identifies tasks, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction.

Invoices shall be sent to:

Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Attn: Accounts Payable <u>AcctsPayable@ncpa.com</u>

- 2.2 <u>Monthly Payment.</u> Agency shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.
- **2.3 <u>Payment of Taxes.</u>** Consultant is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.

- **2.4** <u>Authorization to Perform Services.</u> The Consultant is not authorized to perform any Services or incur any costs whatsoever under the terms of this Agreement until receipt of written authorization from the Contract Administrator.
- 2.5 <u>Timing for Submittal of Final Invoice.</u> Consultant shall have ninety (90) days after completion of its Services to submit its final invoice for the Requested Services. In the event Consultant fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Consultant is deemed to have waived its right to collect its final payment from Agency.

**Section 3. FACILITIES AND EQUIPMENT.** Except as set forth herein, Consultant shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Services.

**Section 4. INSURANCE REQUIREMENTS.** Before beginning any work under this Agreement, Consultant, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

**4.1** <u>Workers' Compensation.</u> If Consultant employs any person, Consultant shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Consultant with limits of not less than one million dollars (\$1,000,000.00) per accident.

## 4.2 <u>Commercial General and Automobile Liability Insurance.</u>

- **4.2.1** <u>Commercial General Insurance</u>. Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- **4.2.2** <u>Automobile Liability</u>. Consultant shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Consultant, on or off Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and

mobile equipment to the extent coverage may be excluded from general liability insurance.

- **4.2.3** <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.
- 4.3 Professional Liability Insurance. Consultant shall maintain professional liability insurance appropriate to Consultant's profession performing work in connection with this Agreement in an amount not less than one million dollars (\$1,000,000) and two million dollars (\$2,000,000) aggregate covering the Consultant's errors and omissions. Any deductible or self-insured retention shall not exceed two hundred fifty thousand dollars (\$250,000) per claim. Such insurance shall be on a "claims-made" basis, subject to the following conditions: (1) the retroactive date of the policy shall be on or before the Effective Date of this Agreement; (2) the policy shall be maintained for at least five (5) years after completion of the Services and, if requested by Agency, evidence of coverage shall be provided during this period; and (3) if, within five (5) years of completion of the Services, coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Agreement, Consultant shall purchase "extended reporting" coverage for a minimum of five (5) years after completion of the Services and, if requested by Agency, provide evidence of coverage during this period.

## 4.4 <u>All Policies Requirements.</u>

- **4.4.1** <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Consultant shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
- **4.4.2 Notice of Reduction in or Cancellation of Coverage.** Consultant shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
- **4.4.3** <u>Higher Limits.</u> If Consultant maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Consultant.
- **4.4.4** Additional Certificates and Endorsements. If Consultant provides services to Agency members, SCPPA, and/or SCPPA members pursuant to this Agreement, Consultant shall provide certificates of insurance and

policy endorsements, as referenced in Section 4.4.1, naming the specific Agency member, SCPPA or SCPPA member.

- **4.4.5** <u>Waiver of Subrogation.</u> Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.
- **4.5** <u>**Consultant's Obligation.**</u> Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensues they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

## Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

- **5.1** <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.
- **5.2** <u>Scope.</u> Consultant shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against any and all claims to the extent that the claims arise out of, pertain to or relate to the negligence, recklessness or willful misconduct of the Consultant in its performance of Services under this Agreement. Consultant shall bear all losses, costs, damages, expense and liability of every kind, nature and description to the extent that they arise out of, pertain to, or relate to such claims, whether directly or indirectly ("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the negligence, active negligence, or willful misconduct of the Agency.

## Section 6. STATUS OF CONSULTANT.

6.1 <u>Independent Contractor.</u> Consultant is an independent contractor and not an employee of Agency. Agency shall have the right to control Consultant only

insofar as the results of Consultant's Services and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Consultant accomplishes Services rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Consultant and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contribution to be paid by Agency for employer contributions and/or employee contributions for PERS benefits.

Consultant shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Consultant and Agency acknowledge and agree that compensation paid by Agency to Consultant under this Agreement is based upon Consultant's estimated costs of providing the Services, including salaries and benefits of employees, agents and subcontractors of Consultant.

Consultant shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Consultant's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Consultant agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Consultant shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Consultant.

- **6.2** <u>**Consultant Not Agent.**</u> Except as Agency may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- **6.3** <u>Assignment and Subcontracting.</u> This Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement

was and is the personal reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the Agency. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Consultant shall supervise all work subcontracted by Consultant in performing the services and shall be responsible for all work performed by a subcontractor as if Consultant itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Consultant from any of its obligations under this Agreement with respect to the services and Consultant is obligated to ensure that any and all subcontractors performing any services shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.

6.4 <u>Certification as to California Energy Commission.</u> If requested by the Agency, Consultant shall, at the same time it executes this Agreement, execute Exhibit C.

## Section 7. LEGAL REQUIREMENTS.

- **7.1** <u>**Governing Law.**</u> The laws of the State of California shall govern this Agreement.
- **7.2** <u>Compliance with Applicable Laws.</u> Consultant and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- **7.3** <u>Licenses and Permits.</u> Consultant represents and warrants to Agency that Consultant and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.

## Section 8. TERMINATION AND MODIFICATION.

**8.1** <u>**Termination.**</u> Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Consultant.

In the event of termination, Consultant shall be entitled to compensation for Services satisfactorily completed as of the effective date of termination; Agency, however, may condition payment of such compensation upon Consultant delivering to Agency any or all records or documents, as referenced in Section 9.1 hereof.

- **8.2** <u>Amendments.</u> The Parties may amend this Agreement only by a writing signed by all the Parties.
- **8.3** <u>Survival.</u> All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Consultant shall survive the termination of this Agreement.
- **8.4 Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
  - **8.4.1** Immediately terminate the Agreement;
  - **8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement;
  - **8.4.3** Retain a different consultant to complete the Services not finished by Consultant; and/or
  - **8.4.4** Charge Consultant the difference between the costs to complete the Services that is unfinished at the time of breach and the amount that Agency would have paid Consultant pursuant hereto if Consultant had completed the Services.

## Section 9. KEEPING AND STATUS OF RECORDS.

- **9.1** Records Created as Part of Consultant's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Consultant hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Consultant agree that, unless approved by Agency in writing, Consultant shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.
- **9.2** <u>Consultant's Books and Records.</u> Consultant shall maintain any and all records or other documents evidencing or relating to charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.
- **9.3 Inspection and Audit of Records.** Any records or documents that this Agreement requires Consultant to maintain shall be made available for

inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Agreement.

## 9.4 Confidential Information and Disclosure.

- **9.4.1** <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as confidential Information in accordance with this section.
- **9.4.2 Non-Disclosure of Confidential Information**. During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confident; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- **9.4.3** <u>Permitted Disclosure.</u> Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
  - **9.4.3.1** Disclosure to employees, agents, consultants, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.

- **9.4.3.2** Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and
- **9.4.3.3** Disclosure by Agency in response to a request pursuant to the California Public Records Act.
- **9.4.4** <u>Handling of Confidential Information</u>. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

## Section 10. MISCELLANEOUS PROVISIONS.

- **10.1** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **10.2** <u>Venue.</u> In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- **10.3** <u>Severability.</u> If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- **10.4** <u>No Implied Waiver of Breach.</u> The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- **10.5** <u>Successors and Assigns.</u> The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

**10.6** Conflict of Interest. Consultant may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Consultant in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.* 

Consultant shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* 

- **10.7** <u>Contract Administrator.</u> This Agreement shall be administered by the Assistant General Manager, Generation Service, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- **10.8 Notices.** Any written notice to Consultant shall be sent to:

Jeffrey K. Meyer, Principal Western Hydrologics, LLP P.O. Box 7192 Auburn, CA 95604

Any written notice to Agency shall be sent to:

Randy S. Howard General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane E. Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

- **10.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- **10.10** Integration; Incorporation. This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and

Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.

- **10.11** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:
  - **10.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
  - **10.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
  - **10.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
  - **10.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
  - **10.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
  - **10.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*
- **10.12** <u>Controlling Provisions</u>. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Consultant's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Consultant's Proposal, the Purchase Order shall control.
- **10.13** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

- **10.14** <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- **10.15** <u>No Third Party Beneficiaries.</u> This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Consultant provide Services to an Agency member, SCCPA and/or a SCPPA member (collectively for the purposes of this section only "Member") pursuant to section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Services relating to such Member.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

WESTERN HYDROLOGICS, LLP

Date\_\_\_\_\_

Date\_\_\_\_\_

JEFFREY K. MEYER,

Principal

Attest:

Assistant Secretary of the Commission

Approved as to Form:

RANDY S. HOWARD,

General Manager

Jane E. Luckhardt, General Counsel

## **EXHIBIT A**

## SCOPE OF SERVICES

Western Hydrologics, LLP ("Consultant") shall provide forecasting, modeling, and other hydrologic consulting services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by the Agency, its Members, SCPPA, or SCPPA Members.

Services to include, but not be limited to the following:

- Monitoring the State Water Resource Control Board's (SWRCB) ongoing activities and decision-making process related to implementation of unimpaired flow criteria for the San Joaquin and Sacramento Rivers;
- Advising NCPA of opportunities in the public process where NCPA could provide further input to mitigate risk;
- Analyzing impacts of the proposed SWRCB unimpaired flows on the North Fork Stanislaus Hydroelectric Project and/or Central Valley Project hydropower;
- Water and runoff modeling;
- Power generation modeling;
- Water rights modeling, analysis, and/or reporting;
- Development of Technical Documents, Reports, and Presentations;
- Attendance at meetings; and
- Other misc. engineering tasks.

## EXHIBIT B

## COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all tasks, including hourly fees and expenses, shall not exceed the amount set forth I Section 2 hereof. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

## RATE SCHEDULED FOR PROFESSIONAL SERVICES

Labor Category	Hourly Rate
Project Principal	\$230
Senior Water Resources Engineer	\$215

#### Expense Reimbursement/Other:

1. Computer, facsimile, and telephone are included in the billing rates, and there is no additional charge.

- 2. Per Diem, depending upon location, may be charged where overnight stays are required.
- 3. Expert Witness Testimony, including Depositions, is billed at time and a half.
- 4. Mileage is reimbursed at current IRS rate.

This schedule is effective from June 1, 2023 to May 31, 2024. Contractor may revise the hourly rates upon 30 days' advance written notice to NCPA. If the Parties cannot agree on revised rates, NCPA may terminate the Agreement.

Pricing for services to be performed at NCPA Member or SCPPA locations will be quoted at the time services are requested.

NOTE: As a public agency, NCPA shall not reimburse Consultant for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

When non-standard billing is requested, time spent by office administrative personnel in invoice preparation is a cost to the project and charged as technical labor.

## EXHIBIT C

## CERTIFICATION

## Affidavit of Compliance for Contractors

Ι,		
,	(Name of person signing	affidavit)(Title)
do hereby certify that back and employment history o	ground investigations to as all employees of	certain the accuracy of the identity
	(Company na	me)
for contract work at:		
LODI ENERGY	CENTER, 12745 N. THOR	NTON ROAD, LODI, CA 95242
	(Project name and	location)
have been conducted as r above-named project.	equired by the California Er	nergy Commission Decision for the
	(Signature of officer	or agent)
Dated this	day of	, 20
THIS AFFIDAVIT OF COM PLAN AND SHALL BE RE	IPLIANCE SHALL BE APP	ENDED TO THE PROJECT SECURITY I THE PROJECT SITE FOR REVIEW BY

THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

\_\_\_\_



# Commission Staff Report – DRAFT

## COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** Schneider Electric USA, Inc. – First Amendment to Five Year Multi-Task General Services Agreement for electric maintenance related services; Applicable to the following project: NCPA Hydroelectric Facility for work performed under Purchase Order #57190

#### AGENDA CATEGORY: Consent

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	If other, please describe:
Department:	Hydroelectric	

IMPACTED MEMBERS:			
All Members	City of Lodi	City of Shasta Lake	
Alameda Municipal Power	City of Lompoc	City of Ukiah	
San Francisco Bay Area Rapid Transit	City of Palo Alto	Plumas-Sierra REC	
City of Biggs	City of Redding	Port of Oakland	
City of Gridley	City of Roseville	Truckee Donner PUD	
City of Healdsburg	City of Santa Clara	Other	
	If other, please specify		

#### **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Schneider Electric USA, Inc. for electric maintenance related services, with any non-substantial changes recommended and approved by the NCPA General Counsel, extending the agreement expiration from January 28, 2024 to December 31, 2024, for continued use by NCPA's Hydroelectric Facility for work performed under Purchase Order #57190 only.

### BACKGROUND:

Electric maintenance related services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. NCPA entered into a five year Multi-Task General Services Agreement with Schneider Electric USA, Inc. effective January 28, 2019, for an amount not to exceed \$2,000,000, for use at all NCPA, NCPA Member, SCPPA, and SCPPA Member facilities. NCPA has utilized this vendor for the past five year for electric maintenance services at its Hydroelectric plants, and this vendor has shown themselves to be competent and responsible.

NCPA's current agreement with Schneider Electric USA, Inc. is set to expire on January 28, 2024. NCPA is currently in negotiations with Schneider Electric USA, Inc. for a new 5-Year Multi-Task General Services Agreement. NCPA has an open Purchase Order with Schneider Electric USA, Inc. for design/replacement of Collierville's Low Voltage 480v MCC Breakers; this work began in October 2023, and is anticipated to be complete in Fall 2024.

To continue the awarded work without interruption, NCPA now desires to enter into a First Amendment to the current Multi-Task General Services Agreement with Schneider Electric USA, Inc., extending the term of the agreement through December 31, 2024. This First Amendment is for use by NCPA's Hydroelectric Facility for work performed under Purchase Order #57190 only; all other NCPA Facilities, Members, SCPPA and SCPPA Members are being removed from this agreement. NCPA has agreements in place for similar services with Electrical Maintenance Consultants Inc, Siemens Industry, Inc and ABB, Inc.

## FISCAL IMPACT:

Upon execution, the total not to exceed amount of the agreement will remain unchanged at not to exceed \$2,000,000. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

#### SELECTION PROCESS:

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from qualified providers as required. Bids are awarded to the vendor providing the best overall value to NCPA. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

#### **ENVIRONMENTAL ANALYSIS:**

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

#### **COMMITTEE REVIEW:**

On January 3, 2024, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

On January 8, 2024, the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

Respectfully submitted,

Approval

RANDY S. HOWARD General Manager

Attachments (3):

- Resolution 24-XX
- Multi-Task General Services Agreement with Schneider Electric USA, Inc.
- First Amendment to Multi-Task General Services Agreement with Schneider Electric USA, Inc.
#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A FIRST AMENDMENT TO THE MULTI-TASK GENERAL SERVICES AGREEMENT WITH SCHNEIDER ELECTRIC USA, INC.

#### (reference Staff Report #XXX:24)

WHEREAS, Northern California Power Agency (NCPA) and Schneider Electric USA, Inc. entered into a Multi-Task General Services Agreement effective January 28, 2019, for Schneider Electric USA, Inc. to provide electric maintenance related services, for use at any facilities owned and/or operated by NCPA, NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, NCPA entered into a purchase order agreement with Schneider Electric USA, Inc., effective October 5, 2023, for Collierville 480v Low Voltage MCC Breaker Maintenance Services to be completed by December 31, 2024; and

WHEREAS, NCPA now desires to enter into a First Amendment to the Multi-Task General Services Agreement to extend the agreement expiration date from January 28, 2024 to December 31, 2024. This First Amendment is for use by NCPA Hydroelectric Facility for work performed under Purchase Order #57190 only; all other NCPA Facilities, Members, SCPPA and SCPPA Members are being removed from this agreement; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into First Amendment to the Multi-Task General Services Agreement with Schneider Electric USA, Inc., with any non-substantial changes as approved by the NCPA General Counsel, for continued use by NCPA's Hydroelectric Facility for work performed under Purchase Order #57190 only.

PASSED, ADOPTED and APPROVED this _	day of	 , 2024 by the following vote
on roll call:		

	Vote	Abstained	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

CARRIE POLLO ASSISTANT SECRETARY



#### MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND SCHNEIDER ELECTRIC USA, INC.

This Multi-Task General Services Agreement ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Schneider Electric USA, Inc., a corporation with its office located at Boston One Campus, 800 Federal Street, Andover, MA 01810 ("Contractor") (together sometimes referred to as the "Parties") as of <u>Sanvary 28</u>, 2019 ("Effective Date") in Roseville, California.

**Section 1. SCOPE OF WORK**. Subject to the terms and conditions set forth in this Agreement, Contractor is willing to provide to Agency the range of services and/or goods described in the Scope of Work attached hereto as Exhibit A and incorporated herein ("Work").

- **1.1** <u>**Term of Agreement.**</u> The term of this Agreement shall begin on the Effective Date and shall end when Contractor completes the Work, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.
- **1.2 Standard of Performance.** Contractor shall perform the Work in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged and for which Contractor is providing the Work. Contractor represents that it is licensed, qualified and experienced to provide the Work set forth herein.
- **1.3** <u>Assignment of Personnel.</u> Contractor shall assign only competent personnel to perform the Work. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Contractor shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- **1.4 Work Provided.** Work provided under this Agreement by Contractor may include Work directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.
- **1.5** <u>**Request for Work to be Performed.</u>** At such time that Agency determines to have Contractor perform Work under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific Work to be performed ("Requested Work"), may include a not-to-exceed cap on monetary cap on Requested Work and all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Work shall be completed. Contractor shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Contractor chooses not to perform the Requested Work. If Contractor agrees to perform the Requested Work, begins to perform the Requested Work, or does not respond within the seven day period specified, then Contractor will have</u>

agreed to perform the Requested Work on the terms set forth in the Purchase Order, this Agreement and its Exhibits.

<u>Section 2.</u> <u>COMPENSATION.</u> Agency hereby agrees to pay Contractor an amount NOT TO EXCEED TWO MILLION dollars (\$2,000,000.00) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

- **2.1** <u>Invoices.</u> Contractor shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:
  - The beginning and ending dates of the billing period;
  - Work performed;
  - The Purchase Order number authorizing the Requested Work;
  - At Agency's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction;
  - At Agency's option, the total number of hours of work performed under the Agreement by Contractor and each employee, agent, and subcontractor of Contractor performing work hereunder.

Invoices shall be sent to:

Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Attn: Accounts Payable <u>AcctsPayable@ncpa.com</u>

- **2.2** <u>Monthly Payment.</u> Agency shall make monthly payments, based on invoices received, for Work satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Contractor.
- **2.3 Payment of Taxes.** Contractor is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.
- **2.4** <u>Authorization to Perform Work.</u> The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

2.5 <u>Timing for Submittal of Final Invoice</u>. Contractor shall have ninety (90) days after completion of the Requested Work to submit its final invoice for the Requested Work. In the event Contractor fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Contractor is deemed to have waived its right to collect its final payment for the Requested Work from Agency.

**Section 3. FACILITIES AND EQUIPMENT.** Except as set forth herein, Contractor shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Work.

**Section 4. INSURANCE REQUIREMENTS.** Before beginning any Work under this Agreement, Contractor, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

**4.1** <u>Workers' Compensation.</u> If Contractor employs any person, Contractor shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Contractor with limits of not less than one million dollars (\$1,000,000.00) per accident.

# 4.2 <u>Commercial General and Automobile Liability Insurance.</u>

- **4.2.1** <u>Commercial General Insurance</u>. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a minimum limit of \$5,000,000 per occurrence/\$5,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering commercial General Liability. No endorsement shall be attached limiting the coverage.
- **4.2.2 Automobile Liability**. Contractor shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Contractor, on or off Agency premises. The policy shall provide a minimum limit of \$1,000,000 per each accident. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.
- **4.2.3** <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.

- 4.3 Professional Liability Insurance. (Required for all Contractors providing engineering, architectural, design, and similar services requiring special licensing from the State of California.) Contractor shall maintain professional liability insurance appropriate to Contractor's profession performing work in connection with this Agreement in an amount not less than one million dollars (\$1,000,000.00) and two million dollars (\$2,000,000) aggregate covering the Contractor's errors and omissions. . Such insurance shall be on a "claimsmade" basis, subject to the following conditions: (1) the retroactive date of the policy shall be on or before the Effective Date of this Agreement; (2) the policy shall be maintained for at least five (5) years after completion of the Services and, if requested by Agency, evidence of coverage shall be provided during this period: and (3) if, within five (5) years of completion of the Services, coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Agreement. Consultant shall purchase "extended reporting" coverage for a minimum of five (5) years after completion of the Services and, if requested by Agency, provide evidence of coverage during this period.
- 4.4 **Pollution Insurance.** Not Applicable.

#### 4.5 <u>All Policies Requirements.</u>

- **4.5.1** <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, if applicable, including the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
- **4.5.2** <u>Notice of Reduction in or Cancellation of Coverage.</u> Contractor shall provide at least thirty (30) days prior written notice to Agency of any reduction in amount, or cancellation, of the policies referenced in Section 4.
- 4.5.3 <u>Higher Limits.</u> Not Applicable.
- **4.5.4** Additional Certificates and Endorsements. If Contractor performs Work for Agency members, SCPPA and/or SCPPA members pursuant to this Agreement, Contractor shall provide the certificates of insurance and policy endorsements, as referenced in Section 4.5.1, including the specific Agency member, SCPPA and/or SCPPA member for which the Work is to be performed.
- **4.5.5** <u>Waiver of Subrogation.</u> Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the

Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Contractor, its employees, agents and subcontractors.

**4.6** <u>Contractor's Obligation.</u> Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Work are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Contractor shall also ensure that all workers involved in the provision of Work are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

# Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

- **5.1** <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Contractor acknowledges and agrees to the provisions of this section and that it is a material element of consideration.
- **5.2** Scope Applicable to Work by Design Professionals. Contractor shall indemnify, defend and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against claims asserted by third parties that arise out of, pertain to or relate injury to persons or tangible personal or real property, to the extent they arise out of or in connection to the negligence, recklessness or willful misconduct of the Contractor in its performance of Work under this Agreement. Contractor shall bear all losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly ("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the sole negligence, active negligence, or willful misconduct of the Agency.

NOTWITHSTANDING ANY PROVISION TO THE CONTRARY, EXCEPT WITH RESPECT TO THIRD PARTY INDEMNIFICATION CLAIMS OR TO THE EXTENT BASED ON CONTRACTOR'S GROSS NEGLIGENCE, NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR CONSEQUENTIAL, INDIRECT, SPECIAL, INCIDENTAL OR PUNITIVE DAMAGES (INCLUDING LOST TIME, PROFITS, REVENUE OR DATA) OF ANY KIND RELATED IN ANY MANNER WITH THIS CONTRACT. REGARDLESS OF THE FORM OF ACTION, OR THE THEORY OF RECOVERY EVEN IF CONTRACTOR HAS BEEN APPRISED OF THE POSSIBILITY OF SUCH DAMAGES, THE TOTAL CUMULATIVE LIABILITY OF CONTRACTOR, ITS SUBCONTRACTORS AND SUPPLIERS OF ANY TIER WITH RESPECT TO THIS CONTRACT OR ANYTHING DONE IN CONNECTION THEREWITH, WHETHER IN CONTRACT, IN TORT (EXCLUDING CONTRACTOR'S GROSS NEGLIGENCE OR WILFUL MISCONDUCT OR THIRD PARTY CLAIMS) OR OTHERWISE, SHALL NOT EXCEED \$5,000,000.

5.3 <u>Transfer of Title.</u> Not Applicable.

#### Section 6. STATUS OF CONTRACTOR.

6.1 Independent Contractor. Contractor is an independent contractor and not an employee of Agency. Agency shall have the right to control Contractor only insofar as the results of Contractor's Work and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Contractor accomplishes Work rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contributions for PERS benefits.

Contractor shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Contractor and Agency acknowledge and agree that compensation paid by Agency to Contractor under this Agreement is based upon Contractor's estimated costs of providing the Work, including salaries and benefits of employees, agents and subcontractors of Contractor.

Contractor shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Contractor's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Contractor agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Contractor shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Contractor.

- **6.2** <u>Contractor Not Agent.</u> Except as Agency may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- 6.3 Assignment and Subcontracting. This Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Contractor. Neither Agency nor Contractor may assign this Agreement or any interest therein without the prior written approval of the other Party. Contractor shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Contractor shall supervise all work subcontracted by Contractor in performing the Work and shall be responsible for all work performed by a subcontractor as if Contractor itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Contractor from any of its obligations under this Agreement with respect to the Work and Contractor is obligated to ensure that any and all subcontractors performing any Work shall be fully insured in all respects and to the same extent as set forth under Section 4. to Agency's satisfaction.
- 6.4 <u>Certification as to California Energy Commission.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit C.
- 6.5 <u>Certification as to California Energy Commission Regarding Hazardous</u> <u>Materials Transport Vendors.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit D. Not Applicable
- 6.6 <u>Maintenance Labor Agreement.</u> If the Work is subject to the terms of one or more Maintenance Labor Agreements, which are applicable only to certain types of construction, repair and/or maintenance projects, then Contractor shall execute Exhibit E and/or similar documentation as to compliance.

# Section 7. LEGAL REQUIREMENTS.

- 7.1 <u>Governing Law.</u> The laws of the State of California shall govern this Agreement.
- **7.2** <u>**Compliance with Applicable Laws.**</u> Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- **7.3** <u>Licenses and Permits.</u> Contractor represents and warrants to Agency that Contractor and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses,

permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.

- **7.4** <u>Monitoring by DIR.</u> The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- **7.5** <u>**Registration with DIR.**</u> During the term of this Agreement, Contractor warrants that it is registered with the Department of Industrial Relations and qualified to perform Work consistent with Labor Code section 1725.5.
- 7.6 Prevailing Wage Rates. In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work as provided in the California Labor Code must be paid to all workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed; the Agency has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the project; and copies of the prevailing rate of per diem wages are on file at the Agency and will be made available on request. Throughout the performance of the Work, Contractor must comply with all applicable laws and regulations that apply to wages earned in performance of the Work. Contractor assumes all responsibility for such payments and shall defend, indemnify and hold the Agency harmless from any and all claims made by the State of California, the Department of Industrial Relations, any subcontractor, any worker or any other third party with regard thereto.

Additionally, in accordance with the California Administrative Code, Title 8, Group 3, Article 2, Section 16000, Publication of Prevailing Wage Rates by Awarding Bodies, copies of the applicable determination of the Director can be found on the web at: http://www.dir.ca.gov/DLSR/PWD/ and may be reviewed at any time.

Contractor shall be required to submit to the Agency during the contract period, copies of Public Works payroll reporting information per California Department of Industrial Relations, Form A- 1-131 (New 2-80) concerning work performed under this Agreement.

Contractor shall comply with applicable law, including Labor Code Sections 1774 and 1775. In accordance with Section 1775, Contractor shall forfeit as a penalty to Agency \$50.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for such work or craft in which such worker is employed for any Work done under the Agreement by Contractor or by any subcontractor under Contractor in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 *et seq.* In addition to the penalty and pursuant to Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

#### Section 8. TERMINATION AND MODIFICATION.

**8.1** <u>**Termination.**</u> Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Contractor.

In the event of termination, Contractor shall be entitled to compensation for Work satisfactorily completed as of the effective date of termination, together with the costs Contractor actually incurs in canceling subcontracts or supply contracts entered into with respect to the terminated Agreement; Agency, however, may condition payment of such compensation upon Contractor delivering to Agency any or all records or documents (as referenced in Section 9.1 hereof).

- **8.2** <u>Amendments.</u> The Parties may amend this Agreement only by a writing signed by both of the Parties.
- **8.3 Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.
- **8.4** Options upon Breach by Contractor. If Contractor materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
  - 8.4.1 Immediately terminate the Agreement;
  - **8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product previously paid for by Agency and prepared by Contractor pursuant to this Agreement;
  - **8.4.3** Retain a different Contractor to complete the Work not finished by Contractor; and/or
  - **8.4.4** Charge Contractor the difference between the costs to complete the Work that is unfinished at the time of breach and the amount that Agency would have paid Contractor pursuant hereto if Contractor had completed the Work.

#### Section 9. KEEPING AND STATUS OF RECORDS.

**9.1** <u>Records Created as Part of Contractor's Performance.</u> All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this

Agreement and that relate to the matters covered hereunder and that have been paid for by the Agency, shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.

- **9.2** <u>Contractor's Books and Records.</u> Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.
- **9.3 Inspection and Audit of Records.** Any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.

# 9.4 Confidential Information and Disclosure.

- **9.4.1** <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as Confidential Information in accordance with this section.
- **9.4.2 Non-Disclosure of Confidential Information**. During the term of this Agreement, either party may disclose (the "Disclosing Party") Confidential Information to the other party (the "Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.

- **9.4.3 Permitted Disclosure.** Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
  - **9.4.3.1** Disclosure to employees, agents, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.
  - **9.4.3.2** Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and
  - **9.4.3.3** Disclosure by Agency in response to a request pursuant to the California Public Records Act.
- **9.4.4** <u>Handling of Confidential Information</u>. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

# Section 10. PROJECT SITE.

**10.1 Operations at the Project Site.** Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency; if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4; and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish, stemming from or relating to Contractor's Work.

- 10.2 Contractor's Equipment, Tools, Supplies and Materials. Contractor shall be solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work. whether owned, leased or rented. Neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, will be responsible for any such equipment, supplies or materials which may be lost, stolen or damaged or for any additional rental charges for such. Equipment, tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to have been abandoned by the Contractor. Any transportation furnished by Agency or, if applicable, the entity for which Contractor is performing the Work. as referenced in Section 1.4, shall be solely as an accommodation and neither Agency nor, if applicable, the entity for which Contractor is performing the Work. as referenced in Section 1.4, shall have liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be new and in acod condition.
- **10.3** <u>Use of Agency Equipment.</u> Contractor shall assume the risk and is solely responsible for its use of any equipment owned and property provided by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, for the performance of Work.

# Section 11. WARRANTY.

- **11.1** <u>Nature of Work.</u> In addition to any and all warranties provided or implied by law or public policy, Contractor warrants that all Work shall be free from defects in design and workmanship, and that Contractor shall perform all Work in accordance with applicable federal, state, and local laws, rules and regulations including engineering, construction and other codes and standards and prudent electrical utility standards, and in accordance with the terms of this Agreement.
- **11.2** <u>Deficiencies in Work.</u> In addition to all other rights and remedies which Agency may have, Agency shall have the right to require, and Contractor shall be obligated at its own expense to perform, all further Work which may be required to correct any deficiencies which result from Contractor's failure to perform any Work in accordance with the standards required by this Agreement. If during the term of this Agreement or the one (1) year period following completion of the Work, any equipment, supplies or other materials or Work used or provided by Contractor under this Agreement fails due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable written notice from Agency, replace or repair the same to Agency's satisfaction.

**11.3** <u>Assignment of Warranties.</u> Contractor hereby assigns to Agency all additional warranties, extended warranties, or benefits like warranties, such as insurance, provided by or reasonably obtainable from suppliers of equipment and material used in the Work.

<u>Section 12.</u> <u>HEALTH AND SAFETY PROGRAMS.</u> The Contractor shall establish, maintain, and enforce safe work practices, and implement an accident/incident prevention program intended to ensure safe and healthful operations under their direction. The program shall include all requisite components of such a program under Federal, State and local regulations and shall comply with all site programs established by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4.

- **12.1** Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.
- **12.2** Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.
- **12.3** Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
- **12.4** Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.
- **12.5** Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of all written accident reports, and coordinate with Agency if further investigation is requested.
- **12.6** Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.

- **12.7** Contractor shall develop a plan to properly handle and dispose of any hazardous wastes, if any, Contractor generates in performing the Work.
- **12.8** Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.
- **12.9** Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials shall include diesel fuel used for trucks owned or leased by the Contractor.
- **12.10** If Contractor is providing Work to an Agency Member, SCPPA or SCPPA member (collectively "Member" solely for the purpose of this section) pursuant to Section 1.4 hereof, then that Member shall have the same rights as the Agency under Sections 12.1, 12.2, 12.4, 12.5, and 12.6 hereof.

#### Section 13. MISCELLANEOUS PROVISIONS.

- **13.1** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **13.2** <u>Venue.</u> In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- **13.3 Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- **13.4** <u>No Implied Waiver of Breach.</u> The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- **13.5** <u>Successors and Assigns.</u> The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- **13.6** <u>Conflict of Interest.</u> Contractor may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined

in the Political Reform Act, codified at California Government Code Section 81000 *et seq.* 

Contractor shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.* 

- **13.7** <u>Contract Administrator.</u> This Agreement shall be administered by Ken Speer, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- 13.8 <u>Notices.</u> Any written notice to Contractor shall be sent to:

Schneider Electric USA, Inc. Attention: Ed Stadelman 6611 Preston Avenue, Suite A Livermore, CA 94551 Edwin.Stadelman@schneider-electric.com (preferred method)

Any written notice to Agency shall be sent to:

Randy S. Howard General Manager Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

With a copy to:

Jane E. Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

- **13.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- **13.10** Integration; Incorporation. This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.

- **13.11** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Contractor agree to resolve the dispute in accordance with the following:
  - **13.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
  - **13.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
  - **13.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
  - **13.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
  - **13.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
  - **13.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq*.
- **13.12** <u>Controlling Provisions</u>. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Contractor's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Contractor's Proposal, the Purchase Order shall control.
- **13.13** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- **13.14** <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.

**13.15** <u>No Third Party Beneficiaries.</u> This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

Date

RANDY S. HOWARD General Manager

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

SCHNEIDER ELECTRIC USA, INC.

Date

EDWIN STADELMAN, Director West Region – US Service Sales

# EXHIBIT A

#### **SCOPE OF WORK**

Schneider Electric USA, Inc. ("Contractor") shall provide electrical services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by Agency, its Members, Southern California Public Power Authority (SCPPA) or SCPPA members. Design and engineering services under this Agreement may be performed by an affiliate entity such that the affiliated entity is duly lcensed to perform engineering in the jurisdicaiton where the srvices are offered and the affiliated entity is specifically identified on the Purchase Order.

Services to include, but not be limited to the following:

Engineering Services

- Studies Arc Flash, Short Circuit and Coordination
- Solutions for OSHA and NFPA 70E Compliance, including Arc Flash Mitigation Solutions
- Power System Design and Upgrades
- Power System Assessment Services
- Power System Analytical Studies

New Equipment Services

- Start-Up and Commissioning
- Spare Parts
- Extended Warranty
- Advantage Service Plans Multi Year Service Plans
- Engineering Analysis
- » Time-current Coordination Analysis
- » Short Circuit Analysis
- » Arc Flash Analysis
  - Training Services

Maintenance and Testing Services

- Preventive Maintenance and Testing
- Predictive Maintenance Solutions Design and Installation
- » Infrared Windows
- » Wireless Temperature Monitoring System (WTMS)
- » Optical Arc Flash Mitigation
- » Partial Discharge Monitoring
  - Advantage Service Plans
  - Additional Services
- » Circuit Breaker Testing
- » D.C. High Potential Testing
- » Grounding System Testing
- » Relay and Metering Testing and Calibration
- » Rotating Equipment
- » Variable Frequency Drive and Soft-start Work

» UPS and Battery Maintenance

Modernization and Upgrade Solutions

- Switchgear Modernization Solutions
- Motor Control Center Upgrades
- Additional Services

On-demand and Emergency Services

- Rapid response 24/7
- Temporary Generator Connection
- Emergency Action Plan
- In case of emergency, call: 844-362-6387

No project under this Agreement shall include Work that would qualify as a Public Works Project under the California Public Contract Code.

#### EXHIBIT B

#### COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all work, including hourly fees and expenses, shall not exceed the amount set forth in Section 2 hereof. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

Class or Title	Straight	Overtime	Premium	Hourty – Emergency
In-shop Technician or Senior Technician	\$140	\$210	\$280	2X Applicable Rate
Field Service Representative	\$205	\$305	\$410	2X Applicable Rate
Project Manager, Power System Engineer, Or Application Engineer	\$240	\$360	\$480	2X Applicable Rate
Power Consultant or Principal Engineer	\$270	\$400	\$540	2X Applicable Rate

#### **Work Classifications**

Following are examples of work performed by Class/Title (including, but not limited to):

- In-shop Technician (or Senior Technician): C-5 Breaker Reconditioning
- Field Service Engineer/Representative: Equipment Startup, Breaker Replacements, Equipment Reconditioning, Testing
- Project Manager/Power System Engineer/Application Engineer: System Studies, Arc Flash Analysis, Electrical System Design, Project Management
- · Power Consultant or Principal Engineer. Large/Complex Project System Design

#### Rates

Hourly rates apply to travel time, work time and any stand-by time. Travel time is calculated starting at the departure from the service engineer's location or factory to and from the job.

- · All Services' rates are quoted in U.S. dollars.
- · Rates are not valid unless accompanied by a formal quotation.
- There is a \$500 minimum charge for all equipment orders.
- The minimum billing for services performed on a single order will be eight (8) hours charged at the applicable rate
- Schneider Electric Services reserves the right to apply cancellation charges for cancelled services, including time and expenses incurred at the applicable rates for the scheduled service. Cancellation charges shall include time and expenses incurred at applicable rates, charges incurred from third parties as a result of such termination, and equipment re-stocking charges equal to Schneider Electric usual and customary restocking charges to its distributors. A \$1,000 minimum charge will apply to any services cancelled within 48 hours of the date service was scheduled to commence.

Straight Time Rates - Any 8-hour period between the hours of 06:00 and 18:00 local time, Monday-Friday.

Overtime Rates – Work, travel and/or stand-by rates in excess of 8 hours but not exceeding 12 hours outside the normal (straight time) working hours (holidays excluded).

<u>Premium Rates</u> -- Work, travel, and/or stand-by on Sundays and holidays and all time in excess of 12 hours on other days until there is an 8-hour break in the work schedule.

<u>Emergency Rates</u> – Two times (2X) any applicable rate. Applies to all **unscheduled work**\* or work done under unusual circumstances causing Schneider Electric Services to interrupt their existing schedules. (\*Unscheduled work is work not previously scheduled at least three (3) working days prior to the date required for work to commence, unless agreed to in writing.)

- 2X straight time 8-hour period is between 06:00 and 18:00, Monday-Friday
- · 2X overtime for work in excess of 8 hours Monday-Friday and Saturday
- · 2X premium of Sundays and holidays

#### Expenses

<u>Travel</u> – All travel and living expenses will be invoiced at cost plus 15%, except for airfare which will be subject to a 15% admin charge to a maximum of \$75.00.

<u>Specialized Tools and Test Equipment</u> – Small tools not normally required or carried by Schneider Electric Services will be invoiced at cost. Specialized test equipment will be invoiced at current rental rates, when required.

<u>Material Mark-Up</u> – Outsourced material will have a mark-up of 25% for scheduled work and 35% for unscheduled work. (\*Unscheduled work is work not previously scheduled at least three (3) working days prior to the date required for work to commence, unless agreed to in writing.)

Pricing for services to be performed at NCPA Member or SCPPA locations will be quoted at the time services are requested.

NOTE: As a public agency, NCPA shall not reimburse Contractor for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

# EXHIBIT C

# CERTIFICATION

# Affidavit of Compliance for Contractors

l,		EOWIN	STAD	ELMAN
	(Na	ame of person s	igning affidavit	) (Title)
do hereby certify tha and employment his	t backgrou tory of all e	nd investigation mployees of <u>Schneider E</u>	ns to ascertain lectric USA, Ind	the accuracy of the identity <u>c.</u>
		(Comp	any name)	
for contract work at:				
LODI ENI	ERGY CEN	ITER, 12745 N.	THORNTON	ROAD, LODI, CA 95242
		(Project nan	ne and location	)
have been conducte above-named projec	d as require t.	ed by the Califo	ornia Energy Co officer or ager	t)
Dated this	15	day of	JAN	, 20 <u>19</u> .
THIS AFFIDAVIT OF	- COMPLIA	ANCE SHALL B	E APPENDED	TO THE PROJECT SECUR

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

#### **NOT APPLICABLE**

# EXHIBIT D

# CERTIFICATION

#### Affidavit of Compliance for Hazardous Materials Transport Vendors

l, \_\_\_\_\_

(Name of person signing affidavit)(Title)

do hereby certify that the below-named company has prepared and implemented security plans in conformity with 49 CFR 172, subpart I and has conducted employee background investigations in conformity with 49 CFR 172.802(a), as the same may be amended from time to time,

(Company name)

for hazardous materials delivery to:

LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this \_\_\_\_\_, 20 \_\_\_,

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

# EXHIBIT E

#### ATTACHMENT A [from MLA] AGREEMENT TO BE BOUND

#### MAINTENANCE LABOR AGREEMENT ATTACHMENT LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

- 1) It is an Employer as that term is defined in Section 1.4 of the Lodi Energy Center Project Maintenance Labor Agreement ("Agreement" solely for the purposes of this Exhibit E) because it has been, or will be, awarded a contract or subcontract to assign, award or subcontract Covered Work on the Project (as defined in Section 1.2 and 2.1 of the Agreement), or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.
- 2) In consideration of the award of such contract or subcontract, and in further consideration of the promises made in the Agreement and all attachments thereto (a copy of which was received and is hereby acknowledged), it accepts and agrees to be bound by the terms and condition of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- 3) If it performs Covered Work, it will be bound by the legally established trust agreements designated in local master collective bargaining agreements, and hereby authorizes the parties to such local trust agreements to appoint trustees and successor trustee to administer the trust funds, and hereby ratifies and accepts the trustees so appointed as if made by the undersigned.
- 4) It has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of the Agreement.
- 5) It will secure a duly executed Agreement to be Bound, in form identical to this document, from any Employer(s) at any tier or tiers with which it contracts to assign, award, or subcontract Covered Work, or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.

DATED: 1-15-19

Name of Employer

SCHNEIDER ELECTRIK

Authorized Officer & Title) EDWIN STADELMA DIRECTOR REGIONAL (Address) 48 ICON WAY VACAVILLE CA 95688

#### FIRST AMENDMENT TO MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND SCHNEIDER ELECTRIC USA, INC.

This First Amendment ("Amendment") to Multi-Task General Services Agreement is entered into by and between the Northern California Power Agency ("Agency") and Schneider Electric USA, Inc. ("Contractor") (collectively referred to as "the Parties") as of \_\_\_\_\_\_, 2024.

WHEREAS, the Parties entered into a Multi-Task General Services Agreement dated effective January 28, 2019, and expiring on January 28, 2024, (the "Agreement") for Contractor to provide electrical related services for the Agency, Agency Members, the Southern California Public Power Authority (SCPPA) or SCPPA Members; and

WHEREAS, the Parties have pending and Contractor has started Work under Purchase Order #57190 that may not be complete until November 30, 2024; and

WHEREAS, the Agency now desires to amend the Agreement to extend the term of the Agreement from the original expiration date of January 28, 2024 to a new expiration date of December 31, 2024 deemed necessary for the completion of the Work identified in Purchase Order #57190; and

WHEREAS, the Parties have agreed to modify the Agreement as set forth above; and

WHEREAS, in accordance with Section 8.2 all changes to the Agreement must be in writing and signed by all the Parties; and

NOW, THEREFORE, the Parties agree as follows:

- Limited Scope of Work: It is hereby acknowledged and agreed that notwithstanding anything to the contrary contained in the Agreement, during the remainder of the term of the Agreement, (i) the scope of the Work that Contractor will provide to Agency shall be limited to the Work identified in Purchase Order:#57190; and (ii) neither additional request for Work nor a Purchase Order shall be issued or accepted, unless otherwise explicitly agreed by the Parties in writing.
- 2. Section 1.1—Term of Agreement of the Agreement is amended and restated to read in full as follows:
  - **2.1 <u>Term of Agreement.</u>** The term of this Agreement shall begin on the Effective Date and shall end when Contractor completes the Work identified under the Purchase Order #57190.
- 3. Capitalized terms used but not defined herein shall have the same respective meanings given to them in the Agreement. This Amendment in no way alters the terms and conditions of the Agreement except as specifically set forth herein. If there is any conflict or

First Amendment to Multi-Task General Services Agreement between Northern California Power Agency and Schneider Electric USA, Inc. Template 6-8-18

inconsistency between the Agreement and this Amendment, this Amendment governs and prevails.

Date:

Date:

NORTHERN CALIFORNIA POWER AGENCY

SCHNEIDER ELECTRIC USA, INC.

RANDY S. HOWARD, General Manager DIPTI SHETH, Regional Services Director

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

First Amendment to Multi-Task General Services Agreement Northern California Power Agency and Schneider Electric USA, Inc. Template 6-8-18 Confidential between



# Commission Staff Report – DRAFT

#### COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** NCPA Inter-Agency Resource Plan; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members.

AGENDA CATEGORY: Discussion/Action

FROM:	Michael DeBortol	i	METHOD OF	SELI	ECTION:	
	Assistant Genera	l Manager	N/A			
Division:	Generation Servi	ces	lf other, please des	cribe:		
Department:	Generation Servi	ces				
	MEMBERS:					
	All Members	$\boxtimes$	City of Lodi		City of Shasta Lake	
Alameda N	Iunicipal Power		ity of Lompoc		City of Ukiah	
San Frar	ncisco Bay Area Rapid Transit	Cit	y of Palo Alto		Plumas-Sierra REC	
	City of Biggs	Ci	ty of Redding		Port of Oakland	
	City of Gridley	□ Cit	y of Roseville		Truckee Donner PUD	
Cit	y of Healdsburg	□ City o	of Santa Clara		Other	
		If oth	er, please specify			

#### **RECOMMENDATION:**

Approve Resolution 23-XX for Commission adoption of the NCPA Inter-Agency Resource Plan to prepare, develop, and maintain a diverse generation resource portfolio in accordance with or exceeding renewable portfolio standards and capacity obligations.

#### BACKGROUND:

On April 29, 2021 the NCPA Commission approved the Strategic Plan for 2021 – 2026 (Resolution: 21-42). The strategic plan set multiple priorities which included the Agency to evaluate its resources and Member resources to better prepare for the future. In doing so, an Inter-Agency Resource Plan (IARP) was proposed.

The purpose of the IARP was to map a future course of actions to develop and procure resources through 2045 to optimize a resource portfolio to meet the members load forecasts. The IARP is for internal use by NCPA and NCPA Members and not for regulatory filings.

#### SUMMARY OF RESULTS:

The IARP identified a growing aggregated load demand and new opportunities for NCPA to both procure and operate. Today NCPA Member portfolio meets RA, energy, and RPS mandates. However, the IARP shows new resources are needed after 2026. The completed NCPA IARP summarizes NCPA's resources (current resources, planned new resources, and planned retired resources), integrates energy and peak demand forecasts, and outlines planning scenarios and recommendations based on short, medium, and long-term timelines. The report concludes with recommendations to procure wind, solar, geothermal, short duration storage, and optimize NCPA's current assets, including upgrades and development of new resources. Of these recommendations, a total of 4.6 GW's of capacity was selected by 2045.

Staff is now seeking Commission adoption of the NCPA IARP to be used as a reference to advise and develop future resources and assets for NCPA and NCPA Members.

#### FISCAL IMPACT:

The cost to develop the NCPA IARP was \$177,000, and was included in the approved FY2023 budget. There are no additional fiscal impacts from the NCPA IARP at this time. Fiscal impacts for the potential projects described in the plan will be included in future NCPA proposed budgets, and appropriate approvals will be obtained at that time.

#### SELECTION PROCESS:

This report does not commit NCPA to any expenditure of funds. At the time projects are selected to move forward, NCPA will bid the specific scope of work and seek the appropriate approvals consistent with NCPA procurement policies and procedures.

#### **ENVIRONMENTAL ANALYSIS:**

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

January 18, 2024 Page 3

#### **COMMITTEE REVIEW:**

Pending Committee review and approval.

AFTER FACILITIES APPROVAL: On January 6, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments:

- Resolution 24-XX
- NCPA Inter-Agency Resource Plan (IARP)

#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY ADOPTING THE NCPA INTER-AGENCY RESOURCE PLAN

#### (reference Staff Report #XXX:24)

WHEREAS, on April 29, 2021 the NCPA Commission approved the Strategic Plan for 2021 – 2026 (Resolution: 21-42). The strategic plan set multiple priorities which included the Agency to evaluate its resources and members resources to better prepare for the future. In doing so, an Inter-Agency Resource Plan (IARP) was proposed; and

WHEREAS, the purpose of the IARP was to map a future course of actions to develop and procure resources through 2045 to optimize a resource portfolio to meet the members load forecasts. The IARP is for internal use by NCPA and NCPA Members and not for regulatory filings; and

WHEREAS, the completed NCPA IARP summarizes NCPA's resources (current resources, planned new resources, and planned retired resources), integrates energy and peak demand forecasts, and outlines planning scenarios and recommendations based on short, medium, and long-term timelines. The report concludes with recommendations to procure wind, solar, geothermal, short duration storage, and optimize NCPA's current assets, including upgrades and development of new resources; and

WHEREAS, NCPA is now seeking Commission adoption of the NCPA IARP to be used as a reference to advise and develop future resources and assets for NCPA and NCPA Members; and

WHEREAS, On January 6, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval; and

WHEREAS, This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency approves adoption of the NCPA Inter-Agency Resource Plan to prepare, develop, and maintain a diverse generation resource portfolio in accordance with or exceeding renewable portfolio standards and capacity obligations.

PAS	SED, ADOPTED and APPRO	/ED this	day of	, 2024, by the	e following vote on
ll call:			•	· · · ·	U
		Vote	<u>Abstained</u>	Absent	
	Alameda				
	San Francisco BART				
	Biggs				
	Gridley			·	
	Healdsburg			·	
	Lodi				
	Lompoc				
	Palo Alto				
	Port of Oakland				
	Redding				
	Roseville				
	Santa Clara				
	Shasta Lake				
	Truckee Donner				
	Ukiah				
	Plumas-Sierra				
	•				

ro

ATTEST:

CARRIE POLLO ASSISTANT SECRETARY







# PREFACE

This Inter-Agency Resource Plan (IARP) was developed to assist the Northern California Power Agency (NCPA) in mapping a future course for its current resource energy portfolio, any potential new resources to own and operate, and any power purchase agreements (PPAs) to prepare for sustainable clean energy growth to benefit its 16 member utilities.

The report is for internal use by NCPA and to facilitate discussions with NCPA members. It is not designed for any regulatory filings.

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# 1. Executive Summary

The conclusions derived from the Inter-Agency Resource Plan (IARP) show that NCPA and the members included in this process expect to meet all statutory and regulatory goals as of 2027. To continue to meet state statutory and regulatory goals, NCPA plans to add resources over the next decade plus.

The Net Qualifying Capacity Resource Accounting Table (CRAT) shows that NCPA must add resources by 2030 to maintain reliable operations (see Figure 13, page 1-13). By the end of the planning period in 2045, there is approximately an 815 MW shortfall of net qualifying capacity (NQC) to meet forecasted peak demand plus a planning reserve margin (PRM), presently projected at 17 percent.

Analyzing potential resource options being chosen for expansion resulted in geothermal; wind from Wyoming and the Pacific northwest; solar from northern and southern California sources; multiple storage options including energy storage systems (ESS), 4-hour ESS, 8-hour ESS-, and pumped hydroelectric energy storage (PHES); and a hydrogen ESS conversion of the NCPA's gas turbine projects.



Figure 1 illustrates the new nameplate capacity that is projected to be added to meet forecasted demand starting in 2025, with the majority of new additions completing by 2034.

Figure 1. Annual New Nameplate Capacity Expansion Projections

Most of the expansion consists of wind and solar with energy storage and hydrogen conversions supplying dispatchable capacity to manage the wind and solar generation.

Table 1 shows over 4,600 MW of new projects to be added to the NCPA resource mix to more than cover this shortfall. The wind and solar resources will have NQC values far below the nameplate values.

Resource (MW)	2025	2027	2028	2029	2030	2031	2032	2033	2034	2035	2038	2042	2045
Geothermal	25	0	0	0	0	0	0	0	0	0	0	0	0
Solar-SoCal	0	100	0	0	100	0	0	0	0	0	0	0	0
Hydrogen Conversion	0	60	0	0	50	50	98	0	0	0	0	0	0
Wind-WY	0	0	100	250	150	0	0	0	0	0	0	0	250
Wind-PNW	0	0	150	250	250	250	250	100	0	0	0	0	0
Solar-NorCal	0	0	0	0	250	250	250	250	50	0	200	0	0
Wind-NorCal	0	250	0	0	0	0	0	0	0	0	0	0	0
4-Hour ESS	75	50	0	0	0	0	0	0	0	0	0	0	0
8-Hour ESS	0	100	0	25	75	0	0	0	0	25	0	50	50
Wind-SoCal	0	0	0	0	250	0	0	0	0	0	0	0	0
Annual Total	100	560	250	525	1,125	550	598	350	50	25	200	50	300
Cumulative Total	100	660	910	1,435	2,560	3,110	3,708	4,058	4,108	4,133	4,333	4,383	4,683

#### Table 1. New Capacity Expansion Resources

Figure 2 shows how resource expansion costs accumulate over time.



Figure 2. Annual Cost of New Resource Additions

Costs are relatively modest in the short term, escalate sharply in the transition term, and increase again to add multiple resources in the long term. The expectation is that these resources will be acquired via bonded indebtedness or a Power Purchase Agreement (PPA).

## OVERVIEW OF THE IARP

**How Was the IARP Created?** The NCPA's IARP process assessed the current and future projected member loads, and assessed the ability of the present NCPA resource mix to meet customer demand now and into the future. Only those twelve members who belong to the California Independent System Operator (CAISO) were included in the IARP study; the four Balancing Authority of Northern California (BANC) members were excluded. While only the CAISO members were analyzed, all members benefit from the conclusions and recommendations of the IARP.

**Where Are We Now?** The IARP concludes that NCPA and certain members are provisioned with sufficient capacity to serve peak load, but cannot always meet net energy requirements due to the inability to dispatch variable energy resources (VERs). Short term options for addressing this using Renewable Portfolio Standard (RPS)-compliant resources include daily energy storage (4-, 8-, and 10-hour batteries). In the long term, inter-seasonal storage options (hydrogen storage, pumped storage hydroelectric) become increasingly important.

**Where Is Our RPS Compliance?** Publicly owned utilities (POUs) are obligated to meet RPS requirements now based on goals established with 60% renewables by 2030. Additionally, utilities must have 100% clean energy by 2045. A prospective review of these requirements shows that short term procurement of RPS and zero-carbon clean resources will be required potentially as early as 2028. This conclusion helps inform options being investigated for the future of NCPA natural gas fired generators.

**Where Do We Need to Go?** The IARP identified multiple options for procuring needed RPS and zero-carbon resources together with grid connected storage options that are expected to become abundantly available within the next five years. The ease of contracting for these options will be weighed against member exposure to transmission access charges and congestion rents, as these represent two significant risks to energy deliverability.

Why the IARP Conclusions Matter? The NCPA model of collective action and resource portfolio diversity offers one of the best approaches to shield members from excess energy cost increases.

## HOW WAS THE IARP CREATED

The IARP has been created through a process of seasonal stochastic modeling of VER availability and impacts on member load profiles. These estimates have been initialized using "expected case" projections that have then been subjected to multiple simulations by the Ascend Analytics team. This process of ensemble prediction is analogous to weather projections—the Ascend team performed multiple simulations, then averaged the outcomes to provide a predicted probability that is closer to the actual outcome than any single analytical prediction.

## IARP Modeling and Planning Period

The IARP used a modeling and planning period that ranged from 2021 through 2045. This planning period is separated into three consecutive periods:

**Short Term: 2021–2026.** This term focuses on identifying common needs for meeting existing demand and evaluating conditions, such as building electrification and electric vehicles (EVs), that affect planning for subsequent terms.

**Transition Term: 2027–2030.** The transition term focuses on retiring, repowering, and adding new clean resources to meet regulatory goals and increased demand, and handling system adaptations necessary with increased renewable generation.

**Long Term: 2031–2045.** This final term of the planning period focuses on attaining a 100 percent renewable and zero-carbon portfolio by 2045, identifying potential impediments, and incorporating new technologies to attain that goal.

The conclusions presented in this initial revision of the IARP are focused on the short term. Longer term forecast projections of candidate plant costs are presented graphically in the figures below for plants included in the original Ascend model.



Figure 3. Candidate Plant Summary—Generation Resources



Figure 4. Candidate Plant Summary—Batteries and Demand Response

Note: All modeling assumptions from Ascend Analytics.

# IARP Long-Term Planning Considerations

Sound energy planning requires vision: the ability to create an image of a carbon-neutral future and implement the steps necessary to realize that image.

To that end, NCPA is creating this IARP plan to help attain that vision. The IARP seeks to diversify the energy resource portfolio by upgrading existing resources to transition away from high-carbon fossil fuels, adding new clean resources, and entering into power purchase agreements (PPAs) for clean energy resources.

The IARP also includes the goal of supporting California's transition to a green, carbon-neutral economy by 2045. NCPA can take immediate steps to implement our plan. These steps include any or all of the following:

- Eliminate natural gas (methane (CH<sub>4</sub>)) as a fuel, transitioning our combustion turbine plants to burn hydrogen (H<sub>2</sub>), a clean fuel. This will be accomplished by procuring electrolyzers to generate hydrogen which can burn in a power plant as needed to serve load. Consequently, NCPA developed a hydrogen feasibility study and implementation plan including evaluation of the financial impacts for this fuel transition.
- Upgrade the 300-megawatt (MW) natural gas power plant at the Lodi Energy Center (LEC) to co-fire with up to 45 percent hydrogen. This capability has already been installed on the combustion turbine (CT), but not yet on the combined cycle (CC) unit.
- Update the Lodi & Alameda CT1 units and the Lodi STIG unit for 100 percent hydrogen operation.
- Monitor emerging renewable technologies and assess the feasibility of incorporating reliable alternatives into the NCPA and member generation portfolios.
- Identify NCPA and member needs for energy and fuel storage—including a geothermal plant ESS—evaluate options for meeting these needs, and propose cost-effective, reliable solutions.

## California Statutory Requirements

The current California statutory requirements surrounding renewable generation and greenhouse gas (GHG) reductions have a long and varied history.

In 2002, Senate Bill (SB) 1078 established California's RPS Program by initially requiring that 20 percent of electricity retail sales be served by renewable resources by 2017. Four years later, in 2006, SB 107 accelerated that deadline to 2010. In April 2011, SB 1x2 codified achieving the 33 percent RPS requirement by 2020, and established the percentage requirement applicable to POUs.

SB 350, approved in 2015, mandated RPS procurement of 50 percent by 2030, established a 60% long term contract procurement requirement beginning in 2021, and implemented Integrated Resource Plan (IRP) data submittal requirements for the 16 largest POUs (including four NCPA members).

California SB 100, approved in 2018, accelerated RPS mandates to 50 percent by 2025 and 60 percent by 2030. It also established for the first time the 100 percent zero-carbon electricity goal by 2045. In 2022, SB 1020 added statewide zero carbon electricity procurement goals of 90% for 2035 and 95% for 2040.

In May 2023, progress toward the state's goal was highlighted in the Governor's Clean Energy Transition Plan (as illustrated in Figure 5). NCPA pool members plus SVP generate 55% of energy from clean resources. This plan charts a path to 100% clean energy by 2045 by procuring additional wind, solar and geothermal energy along with conversions of natural gas plant to hydrogen



## Several Energy-Related Issues that Affect the IARP

VER outputs are not predictable with the level of accuracy previously applied within planning studies for traditional electrical generating resources (thermal, nuclear, and hydroelectric). Additionally, VER generation can be highly volatile, challenging grid operations that must keep a balance between the load and supply in the grid. Due to the nature of VER generation, some method of smoothing the intermittency of energy delivery is needed. This can be accomplished most directly with energy storage options (hydrogen and ESS), allowing excess grid-connected renewable energy to be delivered during periods of high grid demand. Despite incentives, renewable generation projects are expected to be more prevalent than capital intensive storage projects for the foreseeable future.

#### Updated CAISO Transmission Interconnection Rules

Resource Adequacy (RA) procurement rules mandates that greater than 90 percent of peak load requirements from long-term contracts be deliverable more than 45 days in advance of the energy month. An outgrowth of this rule is a glut of renewable energy projects being proposed in locations where grid level transmission infrastructure is lacking or non-existent. The doubling of annual interconnection requests has log-jammed the CAISO study apparatus resulting in a two-year pause in approvals. As interconnection rules are clarified to address this situation, later editions of this IARP will address strategies for avoiding these delays.

#### Resource Adequacy Methodology Changes

Proposed modifications to RA accounting (the slice-of-day proposals) are expected to result in more favored treatment for short-term energy storage options (such as a 4-hour ESS) but are not expected to materially impact the required capacity procurement decisions needed to support the RPS and clean energy goals. Existing NQC accounting rules are being used in the interim until modifications to RA procurement are finalized.

#### Gas General Rate Case Impacts

Treatment of thermal electricity generation resources as non-core gas customers is expected to subject this dispatchable generation to higher marginal costs of operation over time. The effect of these rate proposals is expected to be offset by thermal generation retirements or fuel shifting to hydrogen and other low-carbon fuels.

#### Regionalization Considerations and Risks

The Western Energy Imbalance Market (WEIM) promises opportunities to shift renewable energy to required load peaks throughout the Western Interconnection. Early metrics appear to shift implementation costs to CAISO customers to the benefit of out-of-state energy interests. Extended day-ahead market rules, as they are developed, should address some of this inequity. We expect these issues to be addressed in future IARP revisions.

#### Growth in EV Demand

Trajectories for EV adoption vary among NCPA members and have been included in forecast energy use projections. We expect future IARP revisions to benchmark these projections against actual adoption rates.

#### **Building Electrification Adoption**

Shifting of space and water heating load from GHG emitting sources to electric sources is contained in forecast energy use projections for NCPA members. We expect future IARP revisions to benchmark these projections against actual adoption rates.

## WHERE ARE WE NOW

## NCPA Member Demand Projections

Demand forecast data was derived from individual member projections contained in NCPA's modeling database. These projections have been created considering the combined effects of additional achievable energy efficiency (AAEE), load electrification (for example, shifting from natural gas for cooking and water and space heating to electricity), rooftop solar load displacement, and EV charging load.

Figure 6 depicts the peak demand forecasts (including the coincidence factor) for all NCPA members included in the study over the planning period. The NCPA member aggregate peak demand is forecast to increase by 55 percent by 2030—the final year of RPS Compliance Period 6—and by 68 percent over the IARP planning period.



Figure 6. NCPA Member Aggregate Peak Demand Forecasts

Figure 7 depicts each NCPA member's cumulative contribution to the peak demand forecasts over the planning period. (Note: Does not include the coincidence factor. The jump and drop were a function of several individual forecasts mostly driven by Port and Palo Alto.



Figure 7. NCPA Member Cumulative Peak Demand Forecasts

Figure 8 and Figure 9 compare the overall member contribution to the peak demand forecast (not including a coincidence factor) in 2023 and the changes that are forecasted to occur in 2045 at the end of the planning period.



Figure 8. Member Peak Demand Contribution: 2023 Figure 9. Member Peak Demand Contribution: 2045

#### NCPA Generation Projections

Generation resource forecast data was derived from historical patterns of available NCPAand member-owned generation. These projections have been created considering the combined effects of water diversion for biological opinion compliance and hydroelectric relicensing compliance measures, climate change induced impacts on water availability, NQC, and seasonal variability of renewable energy resources. Existing PPAs have been modeled considering present contract lengths.

## Current Generation Type Mix

Figure 10 compares the size and percent of total capacity of the NCPA LEC, CT, geothermal, and hydroelectric resources. Total Capacity of 811.86 MW is evenly split between the thermal CC and CT resources and the clean hydroelectric and renewable geothermal resources.



Figure 10. NCPA 2023 Capacity Comparison

Figure 11 depicts the resource capacity mix for all members in the IARP study in 2023 (total of 2,442.35 MW); Figure 12 depicts the related energy mix (total of 7,325,599 MWh).



Figure 11. Member Resource Capacity Mix: 2023

Figure 12. Member Resource Energy Mix: 2023

Thermal natural gas capacity makes up 18.44 percent of total capacity, but only 6.82 percent of energy. The zero carbon large hydroelectric capacity makes up 31.63 percent of total capacity, but only 24.66 percent of energy. The remaining renewable resources are RPS eligible. In total, these renewable resources make up almost half—49.93 percent—of total capacity, yet 68.52 percent of energy, a total of almost 5,020 GWh. These amounts, however, are the aggregate totals; the resource mix for each member varies—sometimes significantly—from these totals.

## **Resource Retirements and PPA Expirations**

Over the course of the planning period, three natural gas thermal facilities are scheduled to retire. Their total nameplate generation is 57.90 MW, with an NQC value of 52.90 MW. This represents 2.07 percent of the total thermal generation retirement, and 2.64 percent of retiring NQC MW.

Over the course of the planning period, various PPAs are expiring. Their total nameplate generation is 1,527.30 MW, with an NQC value of 864.86 MW. This represents 54.57 percent of the total renewable generation whose PPA is expiring, and 43.19 percent of the total renewable NQC MW PPA retirement. Some of these PPAs are expected to be renewed, others are expected to not be renewed, while some renewals are uncertain. The capacity planning model assumes that all PPAs are retiring and that none are expected to be renewed.

## WHERE IS OUR RPS COMPLIANCE

The IARP evaluated demand-resource balances considering existing RPS compliance period requirements applicable to publicly owned utilities, including the impact of available clean energy resources (large hydroelectric and nuclear) and planning reserve margin impacts. The IARP has not evaluated pending policy shifts affected by changes in the RA program (that is, slice-of-day). Collaboration between the CEC and POUs on these new rules is not expected until 2024. NCPA expects future IARP revision to address these issues as policy shifts are finalized.

The IARP evaluated resource acquisition recommendations to address ongoing and future RPS and GHG compliance targets based on lowest acquisition cost objectives. Risk penalties have been assigned to resources—green hydrogen electrolysis and small modular reactors without significant benchmarking data.

## **Energy Net Balance Analysis**

The current member nameplate annual peak demand capacity (based on July levels) is enough to meet forecasted peak demand plus a PRM up until 2041. This capacity, however, includes generation from both NQC capacity and from NCPA and member natural gas facilities.

The CRAT (Figure 13) shows that NCPA has adequate capacity to meet peak load growth in the near term—that the NQC only meets forecasted peak demand plus a PRM—until 2030. The graph shows a diverse portfolio of hydroelectric, geothermal, solar, wind, and natural gas to supply their capacity. The transition from natural gas to hydrogen shows up in the graph beginning in 2027. NCPA must add resources by 2030 to maintain reliable operations. By the end of the planning period, there is approximately an 815 MW shortfall of NQC to meet forecasted peak demand plus the PRM.



Figure 13. Net Qualifying Capacity of Existing and Planned Resources (CRAT)

The Energy Balance Table (EBT) shows the annual total energy demand and estimates for energy supply from current generation. Figure 14 shows that NCPA is expected to be short on energy starting in 2026 with that deficit growing over time, and that the percentage of energy drops over the planning period. The result is an increasing reliance on market



Run of River Hydro Large Hydro

Geothermal

purchases to meet increasing demand unless more resources are added. (Note: Load drops are primarily a function of the Port and Palo Alto forecasts.)

Figure 14. Energy Balance Table (EBT)

Wind

Hydrogen

Solar

Gas

The RPS Procurement Table (RPT) summarizes member generation to meet RPS and clean energy requirements. Figure 15 shows that NCPA meets RPS requirements over the short-term, but needs to add renewables or buy renewable energy credits (RECs) to meet the 60 percent RPS mandate by 2030 and the 90 percent clean energy mandate by 2035.

Market Purchases

WAPA

Bio Gas



Figure 15. RPS and Clean Energy Generation Procurement Table (RPT)

The GHG Emissions Accounting Table (GEAT) shows the annual GHG emissions associated with each natural gas resource in the NCPA and member portfolio mix. Figure 16 shows that NCPA and its members forecast compliance with the GHG emissions reduction targets as

established by CARB. In other words, NCPA is on the path to fully decarbonize its resource portfolio by 2045.



Figure 16. GHG Emissions Accounting Table: Pool + SVP Resources (GEAT)

As the natural gas plants convert to hydrogen, carbon emissions will drop significantly as the only remaining natural gas resource will be Donald Von Raesfeld. Figure 17 shows the emissions from NCPA resources only.



Figure 17. GHG Emissions Accounting Table: NCPA Resources (GEAT)

## WHERE DO WE NEED TO GO

Projections of future demand-resource balance for NCPA and its members in light of the RPS, clean energy, and CARB 30 MMT targets show a downward trend in compliance status between now and 2045. This trend can be reversed through a combined strategy acquiring short-term resources through PPAs and developing long-term resources considering the effects of ongoing transmission grid access issues. The location for resource developments must be evaluated considering member needs for dispatchable resources that are not subjected to either market uplift or congestion rents on transmission paths.

## **Cost Considerations**

Initial resource proposals are based on a least-cost implementation frame, considering procurement that exceeds required regulatory minimums for RPS compliance but is not allowed to build more than 150 percent of requirement each year (Note: 150% was a group consensus, but the constraint was not met. The limit of 150% is fairly standard within IRPs) The IARP evaluated existing NCPA resource locations for repowering and incremental additions (such as the STIG and a geothermal ESS) during the short-term. Future IARP revisions will be augmented by in-depth consideration of transmission maximum import capability (MIC), future projections of transmission access charges (TAC), and resulting longer term cost impacts to energy deliverability.

## Future Potential Resource Mix

The future for California is RPS-compliance and zero carbon generation to comply with GHG goals. As such, future buildouts are expected to focus on resource characteristics that meet these requirements. Such resources include baseload geothermal generation dispatchable throughout the day, wind from California and other states for the winter peaking season, and solar photovoltaic (PV) and VERs for the summer peaking season. Storage remains an option for dispatching variable renewable generation at later times, including the potential of aggregating storage to create a virtual power plant for day and evening peaks.

#### **Resource Adequacy Balance**

The increasing penetration of variable renewable generation has resulted in a decreasing adequacy of dispatchable resources to meet expected demand. The goal of the California Public Utilities Commission's (CPUC) RA program is to mitigate this problem by ensuring safe, reliable service by easing the path for siteing new instate resources. A recently modified RA program tightened requirements for meeting these goals by implementing a slice-of-day method.

The IARP considered these new requirements in its modeling, which better informs members to continue to comply with the program through the buildout of new generation and the tactical procurement of compliant PPAs.

## WHY THE IARP CONCLUSIONS MATTER

Recent events in California energy markets have highlighted the need for a diverse resource mix to hedge member cost exposures to market uplift. In December 2022, natural gas prices began trading at nine times the price of traditional values, resulting in excessive costs for utilities dependent on market purchases or gas-fired generation resources. NCPA's hydroelectric assets were able to partially mitigate the effects of this market uplift and provide a limited cost buffer to members impacted by these exorbitant natural gas costs.

This IARP will inform future decisions of NCPA and members to preserve the value of combined action and resource portfolio diversity to continue to provide reliable service at a manageable cost.

# 2. About the IARP and NCPA

## ABOUT THIS IARP

The Northern California Power Agency (NCPA) Strategic Plan for 2021–2026 calls for an evaluation of its resources and assets and an exploration of repurposing facilities, to optimize their strengths and to better prepare for sustainable growth. To implement these activities, the Strategic Plan proposed this Inter-Agency Resource Plan (IARP).

This IARP supports the goals and objectives of the Strategic Plan. The IARP enables NCPA to evaluate its electrical generation resources and map a future course of a resource portfolio that prepares for growth while meeting regulatory and statutory goals, especially toward reducing anthropogenic greenhouse gas (GHG) emissions. The IARP recommends how various facilities can be repurposed and summarizes the technical and financial feasibility for developing additional clean resources.

The IARP has been created during a volatile transition occurring in the electric power industry caused by a plethora of factors. Some can be distinctly identified. While energy efficiency and other demand-side measures contribute to decreasing demand, three other factors contribute to increasing demand:

- The elimination of natural gas for cooking and space heating.
- The increasing number of electric vehicles (EVs).
- The effects of climate change induced by temperature extremes.

The paramount goal for California is to become carbon neutral by 2045. Directed by Assembly Bill (AB) 32 in 2006, the California Air Resources Board (CARB) established a Scoping Plan that guides the state's transition to a clean, carbon neutral, electrical energy economy by 2045. CARB first created a framework for change in its 2008 Scoping Plan, which it has revised every five years (as directed in AB 32).

Thus, CARB published updates in 2013, 2017, and most recently in 2022. That 2022 Scoping Plan calls for actions that:

- Drastically reduce amount of fossil fuels used.
- Achieve carbon neutrality by 2045.
- Meet energy efficiency goals.

The IARP's recommendations and conclusions identify actions for NCPA to take that address all these issues.

## Objective and Purpose of the IARP

The IARP considers both current assets as well as new assets to potentially acquire, operate, or purchase power to meet the energy needs of NCPA members.

The IARP evaluates the electricity generation resources currently owned and operated by NCPA and, based on this evaluation, maps a future course for this portfolio of assets through 2045. In addition, the IARP identifies new resources for NCPA to own and operate as well as power purchase agreements (PPAs) to consider.

Several specific assumptions form the foundation for the modeling, analysis, and resource selection employed to develop the IARP. These assumptions include:

- Attaining California's current and foreseeable future legislative and regulatory mandates. See "California Statutory Requirements" (page 2-9) for an explanation of current California energy mandates.
- Forecasting assumptions, including the California Energy Commission (CEC) Integrated Energy Policy Report (IERP), the California Independent System Operator (CAISO) transmission planning process and regulation changes, the CARB scoping plan, GRC gas transmission costs, and regional considerations and risks. See "Additional Forecasting Assumptions" (page 2-13) for details.
- Electricity demand and energy forecasts for NCPA and for each member, including building electrification and EV forecasts. See "Chapter 3. Energy and Peak Demand Forecasts" (page 3-1) for details.
- Electric generation resources and third-party PPAs owned by NCPA and its members, including planned resource retirements. See "Chapter 4. Resources and Capacity" (page 4-1) for details.
- Cost projections for new technology development and resources. See "Chapter 6. Resource Analysis and Results" (page 6-1) for an analysis of these cost projections.
- Meeting each member's objective for providing safe, reliable, environmentally sustainable, and cost-effective services for their communities.

## **Overall IARP Description**

NCPA asked Ascend to develop this IARP for the 12 members who belong to CAISO. The IARP has been developed based on the Integrated Resource Plans (IRP) of these NCPA members, as well as upon multiple input and planning assumptions; energy and peak demand forecasts; hydroelectric, EV, building electrification, and geothermal forecasts; generation resource analysis; and analytical and modeling tools.

To create the IARP, Ascend developed an aggregate demand forecast, and forecast resource supplies to meet aggregate member demand while assessing and modeling current and potential power supply resources within the context of energy, gas fuel, and capacity price forecasts. These forecasts acknowledged potential future risks to NCPA's generation resources resulting from the energy and peak demand forecasts, weather and policy related impacts, and planned retirements.

In addition, Ascend considered these risk factors, listed in order of priority:

- 1. CAISO-mandated resource adequacy and local capacity requirements.
- 2. Current and probable future renewable portfolio standards (RPS).
- **3.** GHG rules for reducing 1990 levels by 85 percent by 2045.
- California legislative and regulative mandates, including meeting the statewide goal for supplying 100 percent of electricity sales with renewable and zero-carbon resources by 2045.
- **5.** The impacts of present and future energy efficiency and demand-side management (DSM) programs.
- **6.** CAISO transmission rates.
- **7.** Regional transmission constraints and rights.

Ascend also incorporated a sensitivity ( $\pm$ % factor in error, energy, and capacity) to each assumption to better assess the relative uncertainty related to each. We performed multiple simulations in an ensemble to provide better estimates of the uncertainties resulting from extreme events. Ascend employed these inputs and assumptions to run a capacity expansion model and a production-cost model.

Ascend created the IARP so that NCPA could use its conclusions and recommendations as a strategic power supply "roadmap" to help guide NCPA in reevaluating its various power supply resources to meet the goals stated in its Strategic Plan.

## ABOUT NCPA

In 1968, a consortium of locally-owned electric utilities established the NCPA to aggregate investments in energy resources to supply affordable, reliable, clean electricity to its

customers. These utilities established NCPA as a not-for-profit, joint power agency under California Government Code sections 6500 et seq. For its members, NCPA generates, purchases, aggregates, schedules, and manages an array of electric energy.

NCPA is currently a North American Electric Reliability Corporation (NERC) Registered Generator Owner (GO) and Generator Operator (GOP).

#### Alliance with SCPPA

NCPA engages in a reciprocal relationship with the Southern California Public Power Authority (SCPPA) with regards to procurement activities, including Requests for Proposals (RFPs) and contracts. This relationship allows NCPA to share access to those services with both SCPPA and SCPPA's members.

SCPPA is a Joint Powers Authority, created in 1980, to provide joint planning, financing, construction, and operation of transmission and generation projects. Comprised of eleven municipal utilities and one irrigation district, SCPPA's members serve more than 5 million Californians (two million customers) across a service area of 7,000 square miles. SCPPA members supply 16 percent of California's power.

Here are SCPPA's twelve members:

Anaheim Public Utilities Department Azusa Light & Water Cerritos Electric Utility City of Vernon Imperial Irrigation District Pasadena Water and Power Department Burbank Water and Power City of Banning City of Colton Glendale Water and Power Los Angeles Department of Water & Power Riverside Public Utilities

#### About NCPA Members

The 16 NCPA members include 13 municipalities, a rural electric cooperative, and two other publicly owned entities. All 16 NCPA members seek to provide safe, reliable, environmentally sustainable, and cost-effective services for their communities. These 16 members are:

City of Alameda Municipal Power City of Biggs Electric Utility City of Healdsburg Electric Department City of Lompoc Electric Department City of Shasta Lake Electric Utility Port of Oakland Airport & Harbor City of Redding Electric Utility City of Santa Clara Silicon Valley Power Bay Area Rapid Transit District (BART) City of Gridley Electric Department City of Lodi Electric Utility City of Palo Alto Electric Utility City of Ukiah Electric Utility Plumas-Sierra Rural Electric Cooperative (REC) City of Roseville Electric Truckee Donner Public Utility District (PUD) Twelve are members of CAISO, and four are members of the Balancing Authority of Northern California (BANC). Table 2 lists the number of residential, commercial, and industrial customers for 15 NCPA members, and the most recent energy sales (megawatt hours-MWh) to each customer category. All amounts are from calendar year 2022. BART doesn't have electricity customers; it simply uses electricity in its operations.

	Customers				Energy Consumed (MWh)						
NCPA Member Utility	Res	Comm	Indus	Mun	Res	Comm	Indus	Mun			
California ISO (CAISO) Members (included in the IARP study)											
Alameda Municipal Power	31,924	3,879	0	347	133,445	186,872	0	13,730			
Bay Area Rapid Transit	0	0	0	1	0	0	0	400,000			
City of Biggs	813	160	3	0	347	340	21	0			
City of Gridley	2,440	480	8	0	1,041	1,020	64	0			
City of Healdsburg	4,956	954	47	83	26,184	33,978	6,734	5,800			
City of Lodi	23,225	1,923	25	245	167,427	154,004	111,723	21,347			
City of Lompoc	13,644	1,369	30	118	53,991	35,057	25,506	13,927			
City of Palo Alto	26,007	3,593	61	234	154,220	462,357	116,751	81,878			
Plumas-Sierra REC	7,256	784	137	1	66,450	72,577	13,651	642			
Port of Oakland	0	429	100	86	0	42,274	63,412	11,743			
Silicon Valley Power	50,889	6,747	1,719	211	261,798	94,776	4,041,353	16,231			
City of Ukiah	6,622	1,530	48	106	39,404	60,420	3,470	7,436			
CAISO Total (GWh)	167,776	21,848	2,178	1,432	904,307	1,143,675	4,382,685	572,734			
Balancing Authority of Northern California (BANC) Members ( <i>not</i> included in the IARP study)											
Redding Electric Utility	38,231	6,308	5	460	383,137	313,954	15,365	34,277			
Roseville Electric	59,105	5,465	31	1,437	503,863	382,737	252,731	40,586			
Shasta Lake	4,195	256	15	65	41,571	8,548	162,476	3,097			
Truckee Donner PUD	13,016	1,344	0	298	91,047	44,966	0	31,142			
BANC Total (GWh)	114,547	13,373	51	2,260	1,019,618	750,205	430,572	109,102			
NCPA Totals (GWh)*	282,323	35,221	2,229	3,692	1,923,925	1,893,880	4,813,257	681,836			

\* Energy consumed for the CAISO, BANC, and NCPA totals are in GWh. All other energy amounts are in MWh.

 Table 2.
 NCPA Customer Count and Annual Energy Sales for All 16 Members

Figure 18 illustrates the total number of residential, commercial, industrial, and municipal customers for all 16 NCPA members. Contrast the customer counter with Figure 19 which illustrates the energy consumed by each of these customer categories.



#### NCPA Members Included in the IARP Study

Only those members belonging to CAISO are included in the modeling and analysis of this IARP. Redding Electric Utility, Roseville Electric, Truckee Donner PUD, and the City of Shasta Lake Electric Utility, because they belong to BANC, are not included in this study nor are they discussed. In addition, data about these four BANC members was excluded when computing any of the comparison and load-resource charts that appear throughout the IARP. They are, however, beneficiaries of the conclusions and recommendations of this study.

#### Designations

For ease of discussion, the IARP employs certain terms to designate groups of NCPA members included in the IARP. Table 3 outlines the two designations employed throughout this IARP.

Designation	Description
Members	The 12 NCPA members who belong to CAISO that are included in the modeling and analysis for this IARP, sometimes referred to as the study members. Any reference to all 16 NCPA members is explicitly stated.
Pool	Refers to 10 of the study members. Pool members do not include Silicon Valley Power (because of their size) nor BART, the Bay Area Rapid Transit Authority (because of the unique way they use electric power).

#### Table 3. IARP Group Designations

#### Legend for Tables, Graphs, Charts, Diagrams, and Models

Tables, graphs, charts, diagram, and models included throughout the IARP use the abbreviations in Table 4 for the NCPA member utilities that are included in the study.

Abbr	Member Utility	Abbr	Member Utility	Abbr	Member Utility	
ALA	City of Alameda	BART	Bay Area Rapid Transit	BIG	City of Biggs	
GRI	City of Gridley	HEA	City of Healdsburg	LOD	City of Lodi	
LOM	City of Lompoc	PAL	City of Palo Alto	PLU	Plumas-Sierra REC	
POA POH	Port of Oakland: Airport Harbor	SVP	Silicon Valley Power	UKI	City of Ukiah	

Table 4. Legend for Tables, Graphs, Charts, Diagrams, and Models

# IARP BACKGROUND AND METHODOLOGY

## IARP Modeling and Planning Period

The IARP used a modeling and planning period that ranged from 2023 through 2045. This planning period is separated into three consecutive periods:

**Short Term: 2023–2026.** This term focuses on identifying common needs for meeting existing demand and evaluating conditions (such as building electrification and EVs) that affect planning for next terms.

**Transition Term: 2027–2030.** The transition term focuses on retiring, repowering, and adding new clean resources to meet regulatory goals and increased demand, and handling system adaptations necessary with increased renewable generation.

**Long Term: 2031–2045.** This final term of the planning period focuses on attaining a 100 percent renewable and zero-carbon portfolio by 2045, identifying potential impediments, and incorporating new technologies to reach that goal.

"Chapter 6. Resource Analysis and Results" (page 6-1) expands on these planning terms.

## IARP Long-Term Planning Considerations

Sound energy planning requires vision: the ability to create an image of a carbon-neutral future and implement the steps necessary to realize that image.

Toward that end, NCPA is creating a plan to attain that vision. Our plan seeks to diversity our resource portfolio by upgrading existing resources to transition away from high-carbon fossil fuels, adding new clean resources, and entering into PPAs for clean energy resources.

Our plan also includes meeting California's transition to a green, carbon-neutral economy by 2045. NCPA can take immediate steps to implement our plan. These steps include any or all of the following:

Eliminate methane (CH<sub>4</sub>) as a fuel, transitioning our combustion turbine plants to burn hydrogen (H<sub>2</sub>), a clean fuel. This transition allows for less costly storage options (rather than adding expensive electric transmission lines). This can be accomplished, for example, by coupling turbines powered by wind energy from the northern California cost to electrolyzers.

In October 2020, the American Public Power Association (APPA) approved our application for their Demonstration of Energy & Efficiency Development (DEED) grant. As a result, we are developing a hydrogen feasibility study and implementation plan including the financial impacts for this fuel transition.

 Upgrade the 300 megawatt (MW) combined cycle (CC) combustion turbine (CT) and steam turbine (ST) generator at the Lodi Energy Center to co-fire 45 percent hydrogen.

- Converting the Lodi CT unit and the Lodi Steam Turbine Injected Generator (STIG) CT unit to run on hydrogen.
- Monitor emerging renewable technologies and assess the feasibility of incorporating reliable alternatives into the NCPA and member generation portfolios.
- Identify NCPA and member needs for energy and fuel storage, evaluate options for meeting these needs, and propose cost-effective, reliable solutions.

## California Statutory Requirements

The current California statutory goals surrounding renewable generation goals and GHG reduction goals has a long and varied history.

In 2002, Senate Bill (SB) 1078 established California's RPS Program by initially requiring that 20 percent of electricity retail sales be served by renewable resources by 2017. Four years later, in 2006, SB 107 accelerated that deadline to 2010. In April 2011, SB 1x2 codified achieving the 33 percent RPS requirement by 2020 and established the percentage requirement applicable to POUs.

SB 350, approved in 2015, mandated RPS procurement of 50 percent by 2030, established a 60% long term contract procurement requirement beginning in 2021, and implemented Integrated Resource Plan (IRP) data submittal requirements for the 16 largest POUs (including 4 NCPA members).

California SB 100, approved in 2018, accelerated RPS mandates to 50 percent by 2025 and 60 percent by 2030. It also established for the first time the 100 percent zero-carbon electricity goal by 2045. In 2022, SB 1020 added statewide zero carbon electricity procurement goals of 90% for 2035 and 95% for 2040.

#### Senate Bill 350: Clean Energy and Pollution Reduction Act

SB 350, signed into law in 2015 and set to take effect in 2020, established the California's renewable energy procurement goal of 33 percent by 2020 and 50 percent by 2030. The bill established interim goals: 40 percent RPS by 2024 and 45 percent RPS by 2027. Starting in 2030, at least 65 percent of RPS procurement must be derived from long-term contracts of 10 or more years. In addition, the 50 percent RPS generation must be maintained into the future.

The bill defined the renewable energy and zero-carbon sources that can be counted toward meeting the RPS goals. Renewable energy includes generation from solar, wind, geothermal, small hydroelectric, municipal solid waste, biofuels (biodiesel, biomass, and biomethane), fuel cells using renewable fuel, and hydrokinetic energy (ocean thermal energy conversion [OTEC], ocean wave, and tidal current). Zero-carbon resources—generation that does not emit climate-altering greenhouse gases—include large hydroelectric and nuclear technologies.
Senate Bill 350 established clean energy, clean air, and GHG reduction goals. It required reducing GHG to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. Assembly Bill 1279, The California Climate Crisis Act, furthered these goals by requiring an 85 percent reduction by 2045.

The bill also required the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. In addition, SB 350 also authorized utilities to undertake transportation electrification.

#### Senate Bill 100: The 100 Percent Clean Energy Act

In 2018, the California Legislature passed Senate Bill 100 (SB 100), "The 100 Percent Clean Energy Act". SB 100 updated the state's RPS set in SB 350 to ensure that, by 2030, at least 60 percent of California's electricity is renewable. This percentage of renewable generation must be maintained at or above 60 percent from 2030 onward.

In addition, SB 100 requires that renewable energy generation and zero-carbon resources power all (100 percent) retail electricity sold in California by the year 2045.

Combustion resources fueled by biofuels or hydrogen derived from renewable energy resources, while not specified in SB 100, are also considered zero-carbon resources. In addition, while all retail electricity sales in California must be served by renewable and zero-carbon resources by 2045, power losses (mostly in the form of resistive heat from transmission and distribution lines) can still be served by fossil-fired generation.

Finally, SB 100 requires the CEC, the CPUC, and CARB to employ programs under existing laws to achieve 100 percent clean electricity and issue a joint policy report on SB 100 by 2021 and every four years thereafter.

## Senate Bill 1020: The Clean Energy, Jobs, and Affordability Act

Passed in September 2022, Senate Bill 1020 added interim goals in addition to the clean energy mandates established in SB 100. SB 1020 requires that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail electricity sales to California end-use customers by December 31, 2035, and supply 95 percent of all retail electricity sales by December 31, 2040. In addition, all electricity serving California state agencies must be supplied by renewable or clean energy resources by the end of 2035.

#### Climate and Clean Energy Legislation

On September 1, 2022, the California Legislature passed a \$54 billion climate and clean energy package, intended to be spent over five years. Among other things, the legislation codifies the new benchmarks established in SB 1020, getting California to 90 percent clean electricity by 2035 and 95 percent by 2040—interim goals toward the already established goal of 100 percent clean electricity by 2045.

The legislative package contains approximately \$6 Billion for EVs and more than \$8 Billion to decarbonize the state's electrical grid that still relies heavily on natural gas.

## California RPS Goals

Under current legislation, all California retail sellers serving electric loads—including IOUs, CCAs, ESPs, and POUs—must participate in the RPS program and comply with numerous deadlines to meet RPS goals.

Table 5 summaries the compliance periods (CP) and RPS targets and lists the corresponding legislation that set these goals. Thus far, the CPUC has designated six CPs for reporting.

СР	%	Years	Bill	Bill Year	Notes
1	20%	2010-2013	SB 107	2006	SB 1078 initially set a 20% RPS target for 2017.
2	23.3%	2014-2016	SB 107	2006	
3	33%	2017-2020	SB 350	2015	This 33% goal must be maintained in subsequent years.
4	40%	2021-2024	SB 350	2015	—
5	45%	2024-2027	SB 350	2015	-
6	60%	2028-2030	SB 100	2018	SB 350 initially set a 50% target for 2030.
-	90%	2035	SB 1020	2022	From eligible renewable energy and zero-carbon resources
-	95%	2040	SB 1020	2022	From eligible renewable energy and zero-carbon resources
-	100%	2045	SB 100	2018	From eligible renewable energy and zero-carbon resources

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Table 5.	Renewable Portfoli	o Standard	Percent Goals.	larget Years.	and Assembly	v Bill
						,

Starting in CP 3, the portfolio mix of all retail sellers serving electric loads in California must be made up of 75 percent or greater of PCC-0 and PCC-1 resources, and 10 percent or less of PCC-3 resources. In addition, starting with CP 4, the RPS procurement must be met with 65 percent or greater in owned or PPA contracts that extend 10 years or more. Both requirements must be maintained starting in CP 4 and beyond.

The annual RPS compliance report is due to the CPUC on August 1.

Figure 20 depicts the RPS percent procurement requirements by CP, breaking the CPs into interim goals by year.



Figure 20. RPS Percent Procurement Requirements by Compliance Periods<sup>1</sup>

The CPUC has developed a formula for determining the procurement quantity requirements for CP 4, CP 5, and CP 6. The three formulas follow a pattern based on the following: the average of the procurement quantity of the electricity product over each related CP must be greater than or equal to the retails sales (RS) as calculated in each formula. Table 6 shows these formulas.

CP4	Procurem	ent (	Quantity ≥
	35.575%	*	2021 RS
+	38.500%	*	2022 RS
+	41.125%	*	2023 RS
+	44.000%	*	2024 RS

CP!	5 Procureme	ent (	Quantity ≥
	46.000%	*	2025 RS
+	50.000%	*	2026 RS
+	52.000%	*	2027 RS

СРе	5 Procureme	ent Q	uantity ≥
	54.667%	*	2028 RS
+	57.333%	*	2029 RS
+	60.000%	*	2030 RS

Table 6. RPS Compliance Period Procurement Quantity Formulas

The California Code of Regulations, Title 20, Section 3201, defines both electricity product and retail sales as follows:

- "Electricity product" means either (1) electricity and the associated renewable energy credit (REC) generated by an eligible renewable energy resource or (2) an unbundled REC.
- "Retail sales" means sales of electricity by a POU to end-use customers and their tenants, measured in MWh. This does not include energy consumption by a POU, electricity used by a POU for its water pumping, or electricity produced for onsite consumption (self-generation).<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/rps/rps-compliance-rules-and-process/60-percent-rps-procurement-rules

<sup>&</sup>lt;sup>2</sup> https://casetext.com/regulation/california-code-of-regulations/title-20-public-utilities-and-energy/division-2-state-energy-resources-conservation-anddevelopment-commission/chapter-13-enforcement-procedures-for-the-renewables-portfolio-standard-for-local-publicly-owned-electric-utilities/section-3201-definitions

## ADDITIONAL FORECASTING ASSUMPTIONS

NCPA supports California's objectives and goals for attaining a non-carbon future.

To evaluate the resources and assets necessary to achieve these goals, the IARP considered numerous assumptions in forecasting future energy needs, and to make the best use of its current resources and assets—including repurposing them, replacing them, and adding to them—to prepare for the sustainable growth necessary to meet the state's clean energy objectives.

This section discusses a number of these assumptions that the IARP considered in its modeling, analysis, scenarios, recommendations, and conclusion.

## CARB Scoping Plan

In 2017, the second update to the AB 32 Climate Change Scoping Plan (2017 Scoping Plan) laid out a cost-effective and technologically feasible path to achieve the 2030 GHG reduction target.

The 2022 CARB Scoping Plan for Achieving Carbon Neutrality, issued on November 22, 2022, lays out a sector-by-sector roadmap for California to achieve carbon neutrality by 2045 or earlier, by reducing anthropogenic GHG emissions by 85 percent below 1990 levels (as directed by AB 1279: The California Climate Crisis Act).

The actions and outcomes in the plan will achieve:

- Significant reductions in fossil fuel combustion by deploying clean technologies and fuels.
- Further reductions in short-lived climate pollutants.
- Support for sustainable development.
- Increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

Under this Scoping Plan, the role of electricity in powering the economy will grow in almost every sector. A clean, affordable, and reliable electricity grid will serve as a backbone to support deep decarbonization across California's economy. Decarbonizing the electricity sector is a crucial pillar of this Scoping Plan. It depends on both using energy more efficiently and replacing fossil-fueled generation with renewable and zero-carbon resources, including solar, wind, energy storage, geothermal, biomass, and hydroelectric power.

The Scoping Plan incorporates SB 350's energy efficiency doubling goal, aligns with the CPUC's IRP 2030 GHG target and latest GHG emissions benchmarks through 2035, the governor's 20 gigawatt (GW) offshore wind and no new gas generation goals, and SB 100's 2030 RPS and 2045 zero-carbon retail sales targets. The goal is to reduce dependence on fossil fuels in the electricity sector by transitioning substantial energy demand to renewable and zero-carbon resources.

NCPA fully supports the 38 million metric tons (MMT) GHG carbon dioxide ( $CO_2$ ) emission reduction target by 2030.

## CEC Integrated Energy Policy Report Forecast

The CEC prepares the IEPR every two years (updated every other year) as required by SB 1389. The IEPR outlines a cohesive approach to best manage California's energy transition from oil and natural gas to renewable energy resources and alternative transportation vehicles.

The report assesses and forecasts energy-related trends, and, using that information, develops "energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety."<sup>3</sup>

The IEPR includes the California Energy Demand Update (CEDU) for 2022. The CEDU includes updates to historical data, economic and demographic projections, electricity rates, and the hourly forecast (to consider the September 2022 heat event), as well as incorporating a new approach to assessing the transportation sector given the rapid advancements in transportation electrification.

The CEC revised its forecasting framework to create a more transparent process to better describe scenario assumptions. The revised framework includes a baseline forecast, a planning forecast, and a local reliability scenario. To better evaluate electricity forecasts, the planning forecast contains sensitivity scenarios (Scenario 3) for additional achievable energy efficiency (AAEE), additional achievable fuel substitution (AAFS), and additional achievable transportation electrification (AATE). The local reliability scenario also contains sensitivity scenario 2), AAFS (Scenario 4), and AATE (Scenario 3).

NACP fully supports the goals of the IEPR.

The Final 2022 IEPR Update<sup>4</sup> (filed February 28, 2023) assesses several trends: economic and demographic, climate, behind-the-meter photovoltaic (PV) solar and storage, and transportation as well as consider state policies and goals. Using these trends, the IEPR includes forecasts for the 2023–2035 period for:

- Annual electricity consumption
- Electricity sales
- Managed sales, including AAEE, AAFS, and AATE electricity impacts
- Peak demand (load)

The IARP considered the IEPR forecasts in its modeling. With some exceptions, the IARP used building electrification and EV forecasts in its modeling based on data in the IEPR. The IARP used internal data from Silicon Valley Power and the City of Palo Alto for their electrification and EV forecasts, and internal data from the City of Alameda for its EV forecast.

<sup>&</sup>lt;sup>3</sup> Pub. Res. Code § 25301(a)

<sup>&</sup>lt;sup>4</sup> *Final 2022 Integrated Energy Policy Report Update with Errata*, California Energy Commission; Docket Number 22-IEPR-01, TN # 248998, February 28, 2023

## CAISO Transmission Planning Process

The CAISO 2021–2022 Transmission Plan (published March 17, 2022) articulated an accelerated pace for developing new transmission facilities based on an average of 2.7 GW of new resources per year over the next decade.

Several factors drive this accelerated pace:

- The urgency of decarbonizing the electricity grid because of emerging climate change impacts.
- Higher electricity forecasts due to the expected electrification of transportation and other carbon-emitting industries.
- Reduced access to opportunity imports as neighboring systems also decarbonize.
- Greater than anticipated impacts of peak demand shifting to later in the day hours when solar resources are unavailable.
- Maintaining system reliability when the Diablo Canyon Nuclear Power Plant and quantities of gas-fired generation that relied on coastal waters for once-through cooling (OTC) retire.

Decarbonizing the power grid demands increased generation from solar PV and storage, onshore and offshore wind, geothermal, out-of-state renewables, and perhaps hydrokinetic resources. In conjunction, the transmission system must be expanded, upgraded, and reinforced to integrate these resources as well accommodate the expected resurgence in electricity consumption as transportation and other industries electrify.<sup>5</sup>

The new transmission plan was driven by several factors. CAISO has received many interconnection requests from "areas that regulators and load-serving entities have not considered optimal for additional transmission development." In addition, CAISO has received "an excessive volume of interconnection requests" in optimal areas. This resulted in much longer wait times for resource developers to receive the results of their requests as well as greater uncertainty around load-serving entities (LSEs) procuring additional resources.

CAISO has created the new transmission plan in collaboration with the CPUC and the CEC and with input from hundreds of stakeholders that takes advantage of transmission and interconnection capacity that exists or is already planned and under development. The interconnection process has also been optimized for transmission upgrades to accommodate longer-term resource development, such as out-of-state and offshore wind.<sup>6</sup>

The transmission plan focuses on ensuring that renewable resources can reliably connect and be delivered; it does not ensure that congestion would preclude achieving state policy goals.<sup>7</sup> The plan outlines potential transmission system solutions—which CAISO can initiate—as well as non-transmission solutions, in particular energy efficiency, demand response, renewable generating resources, and energy storage programs—that require regulatory approval.<sup>8</sup>

<sup>8</sup> Ibid.

<sup>&</sup>lt;sup>5</sup> *California ISO 2021–2022 Transmission Plan*, CAISO, March 17, 2022; p. 1.

<sup>&</sup>lt;sup>6</sup> http://www.caiso.com/about/Pages/Blog/Posts/A-better-way-to-address-interconnections.aspx

<sup>&</sup>lt;sup>7</sup> CAISO 2022, *op. cit.*; p. 2.

On April 3, 2023, CAISO published a draft version of its 2022–2023 Transmission Plan. The plan is based on CPUC 2022 projections for adding more than 40 GW of new resources over the next decade. A sensitivity study projects the need for an additional 70 GW over the same time period. The CPUC has established that next year's CAISO transmission plan is to be based on a projection of 70 GW by 2033. That amount is expected to grow to 120 GW to better align with the goal of a carbon-free power system by 2045.

These projections take into account the retirement of 3.7 GW of gas-powered generation and the planned retirement of 2.256 GW of nuclear-powered generation by the Diablo Canyon Nuclear Power Plant in 2025.

The draft 2022–2023 Transmission Plan "tightens the linkages between resource and transmission planning activities, interconnection processes and resource procurement so California is better equipped to meet its reliability needs and clean-energy policy objectives required by Senate Bill 100."<sup>9</sup> The draft plan outlines the need for a total of 46 transmission projects to be mostly built in California. They range in projected costs from \$4 million to \$2.3 Billion, for a total infrastructure investment of an estimated \$9.3 Billion.<sup>10</sup>

Using resource planning information provided by the CPUC, CAISO plans to develop a final transmission plan, initiate transmission projects, and communicate to LSEs the specific geographic zones being targeted for such projects. The CPUC, in turn, will direct LSEs to procure energy from those zones whose interconnection requests will be given priority. Figure 21 depicts this planning process.



Figure 21. CAISO-CPUC-LSE Planning, Procurement, and Interconnection Process<sup>11</sup>

<sup>&</sup>lt;sup>9</sup> California ISO Draft 2022–23 Transmission Plan, CAISO, April 3, 2023; p. 1.

<sup>&</sup>lt;sup>10</sup> *Ibid.*; p. 3.

<sup>&</sup>lt;sup>11</sup> *Ibid.*; p. 2.

In concert with CPUC-provided resource planning information, the final transmission plan will identify specific geographic zones targeted for transmission projects. Figure 22 depicts these geographic zones.



Figure 22. CAISO Transmission Planning Zones and Capacities<sup>12</sup>

The final 2022–2023 transmission plan expects to enable multiple generation and storage capacity enhancements, including:

- More than 17 GW of solar generation distributed across the state, and in southern Nevada and western Arizona.
- More than 35 GW of in-state wind generation in existing wind development regions.
- More than 1 GW of geothermal generation, primarily in the Imperial Valley and in southern Nevada.
- Access to energy storage projects co-located across the state with renewable generation projects, as well as stand-alone storage located closer to major load centers, totaling over 13.5 GW.
- More than 4.5 GW of out-of-state wind generation from Idaho, Wyoming, and New Mexico.
- Up to 3 GW of central coast offshore wind generation developed before retiring the Diablo Canyon Power Plant, and up to 5 GW after the retirement.

CAISO recommended several transmission projects necessary to integrate these generation and storage projects. Projects that provide access to east Riverside County, Imperial County

<sup>&</sup>lt;sup>12</sup> *Ibid.*; p. 4.

and Arizona solar generation, Imperial Valley geothermal, and New Mexico wind generation include:

- A new 500 kV transmission line running west from the Arizona border into southern Imperial County.
- A new 500 kV transmission line angling up from southern Imperial County to northern San Diego and extending into the southern LA Basin.
- Upgrades to the existing 500 kV and 230 kV lines along the Interstate 10 corridor.

Projects that provide access for Eldorado and Pisgah area solar generation, southeastern Nevada solar and geothermal generation, and Wyoming and Idaho wind generation include:

- A new 500 kV transmission line from southeastern Nevada to the eastern edge of the Los Angeles basin.
- A rebuild of existing southeastern Nevada 230 kV transmission inside CAISO to 500 kV.

Other projects include upgrading the Lugo–Victor–Kramer 230 kV transmission system to access north of the Lugo solar development, as well as a host of smaller upgrades.<sup>13</sup>

The CAISO Board of Governors approved the draft plan on May 23, 2023.

#### Resource Adequacy Methodology Changes

In 2004, the CPUC established its Resource Adequacy (RA) program with two goals: (1) to ensure safe and reliable electric service by providing sufficient resources to CAISO and (2) to create incentives for siting and constructing new resources. CAISO performs annual studies to identify the local capacity requirements (LCRs) for the following calendar year. The RA program contains three distinct requirements:

**System RA.** This requirement maintains electricity during peak demand periods during the day, generally early morning and early evening. Capacity is determined by forecasting peak demand and adding a 15 percent planning reserve margin.

**Local RA.** This requirement maintains electricity during grid contingencies. These include transmission line failures or a power plant tripping offline that are determined by assessing the likelihood of past events occurring again.

**Flexible RA.** This requirement maintains electricity during evening peak demand when solar generation is diminishing and ensures enough flexible capacity to meet expected demand. Capacity varies by month and is based on the largest forecasted three-hour ramp rate in demand.

LSEs must file an annual and monthly reports (45 days before the compliance month) for each requirement.

<sup>&</sup>lt;sup>13</sup> http://www.caiso.com/about/Pages/Blog/Posts/Draft-2022-2023-Transmission-Plan-posted.aspx

Slice of the day proposals are under discussion between the CEC and POUs. While these regulations are not expected to be finalized in the near term, the regulations applicable to Investor Owned Utilities (IOUs) are illustrative and are discussed below for information:

With Decision 22-06-050 filed on June 23, 2022, the CPUC changed the RA program filing requirements, altering its CAISO regulations, by adopting LCRs for 2023 through 2025. This CPUC order, among many aspects, modified the RA daily measurement hours (5–10 PM for March and April; 4–9 PM for all other months) beginning in 2023, and modified the capacity requirements for these hours.<sup>14</sup> This is generally referred to as a slice-of-day methodology.

In general, the RA methodology changes require an LSE to demonstrate that it has enough capacity to satisfy its specific gross demand profile plus a planning reserve margin (PRM) in all 24 hours on CAISO's highest coincident peak demand forecast day for each month. The Order set the minimum PRM at 16 percent for 2023 and 17 percent for 2024. (The forecasts employed in this IARP conform to this tiered PRM schedule for planning period.) To arrive at these capacity amounts, the LSE must employ the newly-adopted 24-hour daily slice framework. In other words, an LSE must plan to meet its RA requirement for every hour throughout the day and month.<sup>15</sup>

Resources are counted based on their capacity contribution, as well as on assigned 24-hour profiles for wind and solar, dispatchable and non-dispatchable resources, dispatchable hydroelectric, energy storage, hybrid and co-located resources, imported resources, and demand response. The RA program also adopted monthly effective load carrying capability (ELCC) values for solar and wind resources beginning in the 2023.

#### General Rate Case Gas Transmission Costs

General Rate Cases (GRC) are proceedings used to address the costs of operating and maintaining the utility system and allocating those costs among customer classes. A utility's revenue requirement must be allocated among the different customer classes—residential, commercial, agricultural, and street lighting—based on the costs incurred when serving that class. A utility then proposes rates for collecting that revenue.

In its GRC Phase II application, the utility proposes its calculations for marginal costs and revenue allocation, and then proposes rates based on these calculations together with background documentation and arguments for adoption. Following a public review process, the CPUC approves or denies the rates.

Pacific Gas and Electric's 2023 GRC application (A.21-06-021) contains a request for a rate increase of approximately 20 percent. Its judication might affect the bid price for natural gas, thus affecting the operating costs of smaller California utilities, such as several NCPA member utilities.

<sup>&</sup>lt;sup>14</sup> Decision Adopting Local Capacity Obligations For 2023–2025, Flexible Capacity Obligations For 2023, And Reform Track Framework, Decision 22-06-050, June 23, 2022, Rulemaking 21-10-002; p. 124–125.

<sup>&</sup>lt;sup>15</sup> Ibid.

#### Regionalization Considerations and Risks

In 2018, the California legislature considered a bill that would have created one balancing authority (BA) and power market for the Western Interconnection, which is currently managed by CAISO and multiple individual utilities. (See "Western Energy Market" on page 4-9 for more information.) The bill would have made CAISO that sole BA, who would have been authorized to expand its operations as a regional transmission organization (RTO) and operate under an independent governance structure. While that bill never reached a vote, the current California legislature is considering a very similar bill.<sup>16</sup>

This reorganization of the Western Interconnection is often referred to as grid regionalization.

The concept behind creating a western RTO would be to improve grid reliability, energy market efficiency, and regional transmission planning—all of which could potentially hasten the transition to clean energy and lower energy costs for ratepayers. The creation of a western RTO presents a multitude of benefits for California and the region, however, its implementation could present problems for the state—and with it, for NCPA and its members.

Here are several issues to consider.

**A Western RTO Governance Structure.** California must pass legislation for CAISO to expand its operations into the rest of the Western Interconnection and become the region's RTO. This would allow other utilities in the Western Interconnect to join the RTO.

CAISO would need to create an independent governance structure, which could present a problem for California. The current CAISO board of governors is appointed by California's governor and confirmed by the state senate. While the CAISO board operates independently, these appointees can largely influence policy. The creation of a western RTO operated by CAISO means that California would make this process moot as the board of governors would be created with regional input as well as from the Federal Energy Regulatory Commission (FERC). A regional board would ostensibly operate with the entire region in mind, and not just California. This presents a potential problem for California's transition to clean energy as recent history with other RTOs have demonstrated a negative impact to a clean energy transition.

The composition of governing boards and their decision-making process varies widely across existing RTOs. To streamline decisions, a group of western state electricity regulators including two CPUC commissioners—created a set of governance principles to protect customers and support state policy mandates in the western electricity grid. These principles include having a committee to represent state interests, an independent and diverse board, and meaningful and open stakeholder engagement.<sup>17</sup> California would be wise to ensure that these type of governance principles were rooted in the creation of a western RTO.

<sup>&</sup>lt;sup>16</sup> https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=202320240AB538

<sup>&</sup>lt;sup>17</sup> State Electricity Regulators. 2022 Letter to Organizations Building Regional Electricity System Optimization, April 18. https://www.westernenergyboard.org/wp-content/uploads/Multistate- Governance-Principles-4-25-22.pdf

**More States with Clean Energy Goals.** Twenty-two states (plus the District of Columbia and Puerto Rico) currently have 100 percent clean energy goals, as opposed to only one in 2018. Besides California, western states include Colorado, Nevada, New Mexico, Oregon, and Washington, as well as Idaho Power and Rocky Mountain Power. This represents about 80 percent of the western state population. A western RTO, then, would be dominated by participants working toward similar clean energy goals. This shared goal would maximize—but certainly not ensure—the opportunity for policies that would better enable California's transition to clean energy.

**Power Market Competition.** In 2018, the CAISO Western Energy Imbalance Market (WEIM) covered approximately 80 percent of load in the Western Interconnection. Since 2021, however, the Southwest Power Pool's (SPP) Western Energy Imbalance Service (WEIS) has competed directly with the CAISO WEIM. While CAISO is currently creating its Extended Day Ahead Market (EDAM) to build on WEIM's success, SPP is responding by developing its day-ahead Markets+ service to compete directly with EDAM. Eight<sup>18</sup> of the 22 organizations participating in WEIM have executed agreements to participate in the development of Markets+, which jeopardizes their future participation in WEIM and EDAM.

Figure 23 compares the CAISO WEIM participants with the eight WEIM members who have also signed agreements to participate in Markets+ phase one development.



Figure 23. CAISO WEIM Participants<sup>19</sup> and SPP Markets+ Development Participants<sup>20</sup>

<sup>&</sup>lt;sup>18</sup> Arizona Public Service Company, Bonneville Power Administration, NV Energy, Powerex Corporation, Puget Sound Energy, Salt River Project, Tacoma Power, and Tucson Electric Power Company.

<sup>&</sup>lt;sup>19</sup> https://www.westerneim.com/Pages/About/default.aspx

<sup>&</sup>lt;sup>20</sup> https://blog.ucsusa.org/mark-specht/western-grid-regionalization-is-back-on-the-drawing-board-why-now/

There is a risk that states might organize within the SPP and its Markets+ initiative and leave California behind to fend for itself.

**Improved Resource Sharing.** A western RTO would assume the role of the sole BA in the region. There are currently 38 BAs in the Western Interconnection. BAs plan RA, ensuring enough resources are available to maintain grid reliability. Grid regionalization accesses a larger and more diverse generation pool, and would enable a BA to better meet differences in peak demand times especially when they occur at different times of the year in different geographical areas.

**In-State Renewable Generation.** Under current legislation, at least 75 percent of generation necessary to meet California's RPS requirement must be generated in the state. How a western RTO would affect this requirement is unclear as the potential to import increasing amounts of RPS-eligible generation would increase, thus affecting the siting of such generation in California.

**Grid Reliability Challenges.** The past few years have clearly demonstrated California's power grid fragility. Grid regionalization could reduce the overall amount of capacity needed to maintain grid reliability as the larger grid could better enable shared resources with every utility in the RTO.

**Efficient Transmission Access.** All BAs in the Western Interconnection currently must coordinate transmission planning with other BAs. A western RTO, with access to the entire transmission infrastructure, would be better equipped to manage transmission constraints, and could coordinate responses to extreme weather considerations from multiple resources. In addition, a western RTO could better manage transmission growth across states.

**Coal Power Plant Retirements.** A concern in 2018 was that grid regionalization would create a larger market for coal generation, especially when many coal plants ran self-committed (operating without regard to cost). Today, however, many coal plants have planned retirement dates within the next decade. Indeed, the Inflation Reduction Act of 2022 only served to accelerate that trend. A western RTO could reverse this trend although it would take new legislation.

**Organizing a Western RTO Has Already Begun.** SPP has already made inroads into the Western Interconnection, and there are other erosions. State laws could have an additional effect. Both Colorado and Nevada mandate certain utilities to join an RTO by 2030. If SPP is the region's sole RTO, those utilities will only have one choice. The Western Power Pool has already organized the Western Resource Adequacy Program to effectively share resources and ensure grid reliability across a range of western states.<sup>21</sup>

Sources include: https://blog.ucsusa.org/mark-specht/western-grid-regionalization-is-back-on-the-drawing-board-why-now/; https://blog.ucsusa.org/vivian-yang/what-does-western-grid-regionalization-mean-for-california/; https://www.newsdata.com/clearing\_up/opinion\_and\_perspectives/regionalization-of-caiso-draws-much-comment-on-the-implications/article\_df18e672b9f1-11ed-85ab-33e4c6d21331.html; As time passes, other initiatives and collaborations might come to fruition, further limiting California's participation, design, and governance of these power structures.

## Once-Through Cooling and Diablo Canyon Plants Retirements

California's power grid contains several power plants that use OTC to maintain equipment temperatures. OTC is the process of pulling in water from a body of water (such as a lake, river, or the ocean) to run through a cooling loop and discharging it back to the source. Section 316 (b) of the Clean Water Act sets minimum standards for OTC power plants to minimize environmental harm on marine and estuarine life.

The California Water Resources Control Board adopted a statewide Water Control Policy to enforce Section 316 (b) that established requirements for each OTC power plant to comply with the policy by a specific date (which differed for each plant). The original policy took effect on October 1, 2010, and has been amended several times (2012, 2014, 2016, 2017, 2021, and 2023).

Facility & Units	Capacity (MW)	Original Compliance Date	Expected Retirement Date	
AES Alamitos 3, 4, 5	1,166	Dec-31-2020	Dec-31-2026	
AES Huntington Beach 2	226	Dec-31-2020	Dec-31-2026	
AES Redondo Beach 5, 6, 8	850	Dec-31-2020	Dec-31-2023	
Diablo Canyon 1	1,159	Nov-2-2024	Nov-2-2029	
Diablo Canyon 2	1,164	Aug-26-2025	Aug-26-2030	
Ormond Beach 1, 2	1,516	Dec-31-2020	Dec-31-2023	
Harbor 5	575	Dec-31-2029	Dec-31-2029	
Haynes 1, 2	444	Dec-31-2025	Dec-31-2029	
Haynes 8	229	Dec-31-2028	Dec-31-2029	
Scattergood 1, 2	367	Dec-31-2024	Dec-31-2029	
Total	7,696	—	-	

Table 7 shows the power plants affected by the Water Control Policy along with the most recent expected retirement dates and the original compliance dates.

#### Table 7. Expected Once-Through Cooling and Diablo Canyon Plants Retirements

Expected retirement dates have changed with each policy amendment as the state of California balances the retirement of OTC plants and their attendant capacity with the need to maintain a reliable power system. Unless the policy is amended yet again, approximately 7.7 GW of firm capacity is expected to retire at the end of 2029.

The OTC initiative with California Water Resources Control Board could potentially have an effect on costs due to the planned retirement of the Diablo Canyon nuclear power plant being extended until 2030.

When Diablo does retire, NCPA must consider the additional costs for planned modifications to OTC water intake versus the cost of normal availability, which are expected to be much less than one percent. While these additional costs represent a potential impact, they are, however, relatively insignificant.

## Net Qualifying Capacity Procurement Requirements

The CEC has set interim goals for POU RPS procurement, based on resource mix baselined in 2021, and projecting linearly increasing requirements for RPS procurement through 2030, when the 60% mandate will apply. All NQC-compliant generation must be derived from zero-carbon resources unless they otherwise qualify as RPS resources. Banked RECs derived from prior generation can be applied to the POU procurement targets, within set retirement periods.

All NQC generation must contribute to an LSE's resource adequacy requirements.

## Internal Combustion Engine Vehicle Sales Banned

In late August 2022, CARB approved the Advanced Clean Cars II rule, which codified Governor Newsom's Executive Order N-79-20. The rule established an annualized roadmap to phase out the sale of internal combustion passenger vehicles. The rule ensures that all new cars and light trucks, including plug-in hybrid electric vehicles (PHEV), sold in California will be zero-emission vehicles (ZEV) by 2035.







Transportation currently accounts for more than 50 percent of California's GHG emissions. By 2037, the rule will reduce smog-causing pollution from light-duty vehicles by 25 percent to meet federal air quality standards. In 2040, GHG emissions from cars, pickups, and sport

<sup>&</sup>lt;sup>22</sup> https://ww2.arb.ca.gov/news/california-moves-accelerate-100-new-zero-emission-vehicle-sales-2035

utility vehicles (SUVs) will decrease by 50 percent from today's levels. By 2040, the regulation cuts climate warming pollution from those vehicles a cumulative total of 395 MMT.

The rule delivers multiple benefits that continue to grow year after year. By 2030, 2.9 million fewer new gas-powered vehicles will be sold in California, rising to 9.5 million fewer conventional vehicles by 2035. This potentially results in over 12 million additional EVs within the next 13 years.

# 3. Energy and Peak Demand Forecasts

The California Energy Demand Update (CEDU) 2022 report, conducted by the CEC, forecasts electric energy growth until 2035. The CEDU derived the forecast by subtracting projected customer PV generation, energy efficiency, demand response, and other demand-side management (DSM) programs from the energy consumption forecasts. The CEDU projects an annual 6 percent growth of PV generation, reaching 55,740 GWh in 2035, and an overall growth of approximately 28 percent in energy consumption, reaching 358,738 GWh in 2035. This forecasted amount also considers the effect of transportation and building electrification.

The energy and peak demand forecasts employed in this IARP were derived from two main sources: NCPA forecasts and Silicon Valley Power IRP forecasts. Forecasts include the effects of distributed PV generation, EV penetration, energy efficiencies, and building electrification. (Transportation electrification and demand response (DR) programs are not included.) The energy and peak demand forecasts in this IARP inform the decisions on how to generate adequate clean energy to meet demand throughout the planning period.

NCPA analyzed and evaluated the data for yearly demand as an hourly seasonal peak demand for the planning period. This included both energy and capacity requirements for each season based on hourly demand projections for a representative day in spring, summer, autumn, and winter. The PowerSimm modeling tool simulated hourly demand for each NCPA member and an aggregate hourly demand.

Distributed energy resource (DER) generation, mostly residential solar PV generation, was treated as a direct reduction of demand but not credited toward RPS or RA. Essentially, DER generation is addressed in the forecasted PRM of 15 percent to 17 percent. The effects of midday DER generation, however, might require a PRM of up to 22 percent.

NCPA member forecasts necessarily differ from those in the CEC's IERP and CAISO's load capacity projections as our forecasts are uniquely regional. As such, NCPA and its members must individually and collectively determine sufficient capacity procurements for resource adequacy and contingencies.

## CURRENT MEMBER PEAK DEMAND

Table 8 lists the peak demand for all members for 2023 and for 2045, the last year of the planning period. NCPA members forecast an overall growth in peak demand of approximately 45.5 percent over the planning period. Table 60 (page D-9) and Table 61 (page D-17) list the monthly peak demand amounts, and Table 62 (page D-18) and Table 63 (page D-19) list the annual peak demand amounts, for each member for every year planning period.

	Peak Demand (MW)				
Member	2023	2045			
City of Alameda	61.10	74.66			
City of Biggs	4.83	4.83			
City of Healdsburg	22.49	22.77			
City of Lompoc	22.77	22.20			
Port of Oakland: Airport	6.39	18.41			
Plumas-Sierra REC	28.45	27.71			
City of Ukiah	32.42	31.18			

	Peak Demand (MW)		
Member	2023	2045	
Bay Area Rapid Transit	71.80	77.20	
City of Gridley	10.18	10.10	
City of Lodi	135.72	141.69	
City of Palo Alto	169.14	168.11	
Port of Oakland: Harbor	18.00	86.73	
Silicon Valley Power	680.65	1,462.91	
NCPA Total NCPA Coincident	1,263.92 1,095.87	2,117.32 1,803.48	

#### Table 8. NCPA and Member Annual Peak Demand: 2023 and 2045

Table 8 lists the peak demand for all members for 2023 and for 2045, the last year of the planning period. NCPA members forecast an overall growth in energy of 57.67 percent over the planning period. Table 56 (page C-9) and Table 57 (page C-17) list the monthly energy amounts and Table 58 (page C-18) and Table 59 (page C-19) list annual energy amounts, for each member for every year in the planning period. ) EV load is assumed within the forecast.

Energy (MWh)			Energy	(MWh)	
Member	2023	2045	Member	2023	2045
City of Alameda	353,292	421,318	Bay Area Rapid Transit	391,233	431,300
City of Biggs	16,298	17,199	City of Gridley	34,900	35,753
City of Healdsburg	73,496	77,606	City of Lodi	455,784	498,834
City of Lompoc	136,582	132,817	City of Palo Alto	834,130	970,515*
Port of Oakland: Airport	40,207	126,120	Port of Oakland: Harbor	85,069	549,965
Plumas-Sierra REC	152,150	145,071	Silicon Valley Power	4,751,950	10,295,818
City of Ukiah	115,796	108,297	NCPA Total	7,440,887	13,797,865

\* Palo Alto's most recent modeling forecasts energy to be 1,115 GWh in 2045; 970 GWh was modeled in the IARP.

Table 9. NCPA and Member Annual Energy: 2023 and 2045

## MEMBER ANNUAL AGGREGATE PEAK DEMAND FORECASTS

Figure 25 depicts the peak demand forecasts for the twelve NCPA members included in the IARP modeling over the planning period. The peak demand forecasts for Silicon Valley Power accounts for approximately 68 percent of the total NCPA peak demand; the peak demand forecasts of the other eleven members account for the remaining 32 percent.

The data for the graphs in Figure 25 through Figure 30 are derived from Table 62: NCPA Member Yearly Peak Demand Forecasts (part one) (page D-18) and Table 63: NCPA Member Yearly Peak Demand Forecasts (part two) (page D-19).



Figure 25. NCPA Member Peak Demand Forecasts

Because the peak demand forecast for Silicon Valley Power accounts for such a large percentage of the total NCPA peak demand, a closer look at the peak demand forecasts for the remaining eleven members is in order. Figure 26 depicts these peak demand forecasts. Notice the range of 0-200 MW in this graph compared to the range of 0-1,600 MW in Figure 25.



Figure 26. NCPA Pool Member Peak Demand Forecasts

Figure 27 depicts the peak demand forecasts (including the coincidence factor) for all NCPA members included in the study over the planning period. The NCPA member aggregate peak demand is forecast to increase by approximately 55 percent by 3030—the final year of RPS compliance period 6—and by approximately 68 percent over the IARP planning period.



Figure 27. NCPA Member Aggregate Peak Demand Forecasts



Figure 28 depicts each NCPA member's cumulative contribution to the peak demand forecasts over the planning period. This figure does not consider the coincidence factor.

Figure 28. NCPA Member Cumulative Peak Demand Forecasts

Figure 29 and Figure 30 compare the overall member contribution to the peak demand forecast in 2023 and the changes that are forecasted to occur in 2045 at the end of the planning period. NCPA's peak demand occurs in July. These figures do not account for the coincidence factor.



Figure 29. Member Peak Demand Contribution: 2023

Figure 30. Member Peak Demand Contribution: 2045

## MEMBER ANNUAL AGGREGATE ENERGY FORECASTS

Figure 31 depicts the energy forecasts for the twelve NCPA members included in the IARP modeling over the planning period. The energy forecast for Silicon Valley Power accounts for approximately two-thirds of the total NCPA energy forecast; the energy forecasts of the other eleven members account for the remaining one-third.

The data for the graphs in Figure 31 through Figure 36 are derived from Table 58: NCPA Member Yearly Energy Forecasts (part one) on page C-18 and Table 59: NCPA Member Yearly Energy Forecasts (part two) on page C-19.



Figure 31. NCPA Member Energy Forecasts

Member Annual Aggregate Energy Forecasts

Because the energy forecasts for Silicon Valley Power accounts for such a large percentage of the total NCPA energy, a closer look at the energy forecasts of the other eleven members is in order. Figure 32 depicts these energy forecasts. Notice the range of 0-1,100,000 MWh in this graph compared to the range of 0-12,000,000 MWh in Figure 31.



Figure 32. NCPA Member Energy Forecasts (without Palo Alto and Silicon Valley Power)

Figure 33 depicts the energy forecasts for all NCPA members included in the study over the planning period. The NCPA member aggregate energy is forecast to increase by approximately 57 percent and by approximately 90 percent over the entire planning period.



Figure 33. NCPA Member Aggregate Energy Forecasts

Figure 34 depicts each NCPA member's contribution to the energy forecasts over the planning period.



Figure 34. NCPA Member Cumulative Energy Forecasts



Figure 35 and Figure 36 compare the overall member contribution to the energy forecast in 2023 and the changes that are forecasted to occur in 2045 at the end of the planning period.

Figure 35. NCPA Member Energy Contribution: 2023

Figure 36. NCPA Member Energy Contribution: 2045

## NCPA MAXIMUM HOURLY PEAK DEMAND FORECASTS BY SEASON

Figure 37 depicts the hourly seasonal peak demand forecast (including a coincidence factor) for NCPA members over the planning period. For most years, peak demand occurs during the summer although demand peaks in autumn for a couple of years later in the planning period.



Figure 37. NCPA Aggregate Maximum Hourly Peak Demand, All Seasons

## Spring Season

Figure 38 depicts the maximum hourly peak demand forecasts for all NCPA members for the *spring* months (March through May) over the planning period. The data for this graph are derived from Table 64: NCPA Member Spring Maximum Hourly Peak Demand Forecasts (part one) on page D-27 and Table 65: NCPA Member Spring Maximum Hourly Peak Demand Forecasts (part two) on page D-28.



Figure 38. NCPA Member Aggregate Maximum Hourly Peak Demand: Spring

#### Summer Season

Figure 39 depicts the maximum hourly peak demand forecast for all NCPA members for the *summer* months (June through August) over the planning period. The data for this graph are derived from Table 66: NCPA Member Summer Maximum Hourly Peak Demand Forecasts (part one) on page D-29 and Table 67: NCPA Member Summer Maximum Hourly Peak Demand Forecasts (part two) on page D-30). At approximately 1,896 MW, summer 2035 represents the ultimate aggregate hourly peak demand over the planning period.



Figure 39. NCPA Member Aggregate Maximum Hourly Peak Demand: Summer

#### Autumn Season

Figure 40 depicts the forecast maximum hourly peak demand for all NCPA members for the *autumn* months (September through November) over the planning period. The data for this graph are derived from Table 68: NCPA Member Autumn Maximum Hourly Peak Demand Forecasts (part one) on page D-31 and Table 69: NCPA Member Autumn Maximum Hourly Peak Demand Forecasts (part two) on page D-32. At approximately 1,830 MW, autumn 20334 represents the penultimate aggregate hourly peak demand over the planning period.



Figure 40. NCPA Member Aggregate Maximum Hourly Peak Demand: Autumn

#### Winter Season

Figure 41 depicts the maximum hourly peak demand forecasts for all NCPA members for the *winter* months (December through February) over the planning period. The data for this graph are derived from Table 70: NCPA Member Winter Maximum Hourly Peak Demand Forecasts (part one) on page D-33 and Table 71: NCPA Member Winter Maximum Hourly Peak Demand Forecasts (part two) on page D-34. At approximately 891 MW, winter 2023 represents the lowest aggregate hourly peak demand over the planning period.



Figure 41. NCPA Member Aggregate Maximum Hourly Peak Demand: Winter

# HYDROELECTRIC FORECASTS

### Western Area Power Administration and the Central Valley Project

Most members contract with the Western Area Power Administration's (WAPA) Central Valley Project (CVP) for non-dispatchable hydroelectric generation. (See "WAPA and the Central Valley Project" on page 4-15 for details).

WAPA publishes a CVP Power Resources Report—aka the Green Book—which describes the functions that WAPA fulfills. Forecasts for resources from CVP employed in the IARP are based on actual generation from 2012–2022 and cycled through at random, with associated low hydroelectric years during higher market prices cycled approximately 70 percent of the time. Thus, CVP hydroelectric power forecasts are conservative and represent an amount that can be delivered with a high degree of certainty. Historic generation from CVP tracks closely to the historic generation from the Calaveras hydroelectric project (see Figure 43, page 3-15).

The IARP forecasts CVP generation in 2023 to be similar to that of 2017, and forecasts 2024 to be an average year. Starting in 2025, the CVP forecast annually decreases capacity by one half percent per year until 2045. The capacity is available as MWs. Capacity values are taken from the long-term averages published in the Green Book, which has been decremented by 30 percent starting in 2025.

The quantity of RA capacity eligible to be claimed from Western Base Resource deliveries is subject to change based on weather variability, hydrological conditions, and ongoing RA policy initiatives and discussions.

Monthly base resource CVP data is divided into on-peak and off-peak energy based on daily data. For long-term power modeling, April, May, and August are split into sub-periods to more accurately model significant changes in energy pumping and San Luis generation (on one of CVP's reservoirs) that generally occurs in those months.

Figure 42 depicts the average of base resource on-peak and off-peak energy of all water years for each month and split-month.



Figure 42. CVP Average Base Resource Energy for All Water Years<sup>23</sup>

Figure 42 was derived from the data in Table 72: Monthly Base Resource Energy Distribution for Water Year 2002 (page E-1), which lists the on-peak and off-peak energy as well as the percent of on-peak energy that can be expected monthly (including split months).

## Calaveras Hydroelectric Forecast

Members derive approximately 9 percent of their total capacity from the Calaveras Hydroelectric project, the combined aggregate of Collierville Units 1 & 2 and New Spicer Meadows Units 1–3. Figure 43 depicts the historical Calaveras generation starting in 2010 and the forecasted generation over the planning period. This graph was derived from data in Table 73: Calaveras Hydroelectric Historical and Forecasted Annual Generation Data (page E-2).



Figure 43. Calaveras Hydroelectric Historical and Forecasted Annual Generation

<sup>&</sup>lt;sup>23</sup> Central Valley Project Power Resources Report ("Green Book 2004"), WAPA; Figure 4-4 – CVP Base Resource (Energy), Average All Years, p. 40.

Starting in 2024, Calaveras energy production (not capacity) is forecasted to decrease by 1.0 percent annually, with an additional reduction of energy available from the resource by 20 percent beginning in 2033 starting with a relicensed agreement. The forecast, however, must be tempered by the great disparity in actual annual generation over the previous 12 years.

## CALIFORNIA'S ENERGY FORECAST

Every year, the CEC updates its CEDU. The CEC published its most recent CEDU in its IEPR on February 28, 2023. (See "CEC Integrated Energy Policy Report Forecast" on page 2-14 for more information.) This presents an opportunity to compare NCPA forecasts with those for the entire state.

The CEDU shows that electricity consumption in accelerating, partially because of efforts to decarbonize the transportation and building sectors by switching from fossil fuels to electricity. The forecast incorporates projected impacts of customer generation, additional achievable energy efficiency (AAEE), fuel substitution, and transportation electrification. The CEDU is derived by subtracting projected customer generation from the updated consumption forecast.

Туре	Planning Forecast (GWh)	Local Reliability Scenario (GWh)	
Baseline consumption	358,738	358,738	
Behind-the-meter distributed generation and storage	68,256	68,256	
Baseline sales*	290,483	290,483	
AAEE	19,156	12,200	
AAFS	6,613	31,154	
AATE	24,011	24,011	
Managed Sales‡	301,951	333,447	

Table 10 presents the CEDU results.

\* Baseline sales = baseline consumption minus behind-the-meter distributed generation and storage

# Managed sales = baseline sales minus AAEE plus AAFS plus AATE

#### Table 10. IEPR Statewide Forecast Results: 2035<sup>24</sup>

CEDU forecasts electricity consumption, including transportation electrification, to grow at approximately 1.8 percent annually through 2035. Statewide energy consumption was more than 280,000 GWh in 2021. CEDU forecasts electricity consumption to be 289,503 GWh in 2023 and to be 358,738 GWh in 2035—a growth rate of 23.92 percent. NCPA's member energy consumption for 2023 forecasts to be 7,441 GWh and is forecasted to be 10,840 GWh in 2035—a growth rate of 45.68 percent.

<sup>&</sup>lt;sup>24</sup> California Energy Commission, *op. cit.*; Table 3: Summary of Statewide Forecast Results in 2035, p. 58.

Figure 44 depicts the statewide energy consumption starting with historical data from 2002, including the California energy demand 2021 middle case forecast and the California energy demand 2022 baseline case forecast.



Figure 44. IEPR Statewide Baseline Electricity Consumption<sup>25</sup>

The graph in Figure 44 was derived from data in Table 74: California Energy Demand Update Annual Historical and Forecast Data (page E-4) which lists data from 2000 through 2035.

<sup>&</sup>lt;sup>25</sup> *Ibid*.; p. 59.

## BUILDING ELECTRIFICATION FORECAST

On August 11, 2021, the CEC adopted Building Energy Efficiency Standards that apply to residential, nonresidential, high-rise residential, and hotel and motel buildings. The standards increase the efficient use of energy and water for new residential and new nonresidential buildings, and energy and water conservation design standards. The standards encourage electric heat pump technology for space and water heating, expands solar and energy storage standards, and adopts electric-ready requirements for single-family homes.<sup>26</sup>

These standards are known as building electrification. It refers to the electrification of appliances and equipment in buildings, such as electric heat pump replacing gas heating, electric water heaters replacing gas water heaters, and electric cooktops replacing gas cooktops.

The California Building Standards Commission unanimously approved the standards on December 14, 2021. They become effective January 1, 2023. Energy use in buildings causes one quarter of California's climate pollution and emits seven times more toxic nitrogen oxide air pollution than all the state's power plants. Switching from fossil fuels to clean, efficient electric heat pump space and water heating offers a pathway to zero-emission buildings. An efficient heat pump saves at least 75 percent of GHG emissions over its lifetime.<sup>27</sup>

The CEC has established the Technology and Equipment for Clean Heating (TECH) program and the Buildings Initiative for Low-Emissions Development (BUILD) program to offering incentives for all-electric new construction in low-income communities. BUILD is a residential building decarbonization program that provides incentives and technical assistance to support the adoption of advanced building design and all-electric technologies in new, low-income all-electric homes and multifamily buildings. BUILD provides financial assistance for a statewide direct-install building retrofit programs for low-income households to replace fossil fuel appliances with electric appliances.<sup>28</sup>

On September 22, 2022, CARB issued the 2022 State Strategy for the State Implementation Plan (SIP). This 2022 State SIP Strategy includes the requirement that all space and water heaters sold in California for either new or existing residential and commercial buildings must comply with a statewide zero-emission GHG standard by 2030. The 2022 State Implementation Plan includes a strategy to limit oxides of nitrogen emissions from space and water heaters, which would effectively limit new sales of gas space and water heaters.

The Final 2022 IEPR Update included building electrification projections in its energy and electricity consumption forecasts. The forecast is projected to be 2.5 percent annually, and as high as 3 percent as buildings transition from gas to electricity.

<sup>&</sup>lt;sup>26</sup> 2022 Title 24 Building Energy Efficiency Standards Rulemaking, State Energy Resources Conservation And Development Commission, Docket No. 21-BSTD-01, Resolution No: 21-0811-4B

<sup>&</sup>lt;sup>27</sup> https://www.nrdc.org/bio/pierre-delforge/california-forging-ahead-zero-emission-buildings

<sup>28</sup> https://www.energy.ca.gov/programs-and-topics/programs/building-initiative-low-emissions-development-program

# ELECTRIC VEHICLE AND CHARGING DEMAND FORECAST

CARB's Advanced Clean Cars II rule propelled the energy required for increased transportation electrification into prominence. The CEC forecasts at much as 15 million additional zero-emission vehicles on California's road in the next twelve years requiring almost 25,500 MWh of energy.

Transportation electrification forecasts are included in member peak demand and energy forecasts. (Refer to the beginning of this chapter for details, although see Table 76: City of Alameda EV Demand Forecast on page E-6 for a separate forecast for the City of Alameda.)

The transition to EV trucks has already started for the Port of Oakland. Their airport interconnection to the CAISO and Pacific Gas and Electric (PG&E) transmission currently peaks at 6 MW and is expected to increase by 1.2 MW in 2025 for additional EV buses and related substations. They plan to add 4 MW to additional EV buses in 2027. The Port of Oakland's harbor location connects to the CAISO and PG&E transmission system through a 115 kV line which peaks at 17 MW; they expect to add at least 14 MW of EV chargers by 2030, which could potentially increase to approximately 40 MW. Their harbor currently has about 30 EV trucks and expects to add up to 50 more. These increases contribute to their forecasted increase in capacity.

### **IEPR Zero-Emission Vehicle Forecast**

The IEPR forecast additional capacity required by the increasing volume of various ZEV purchases over the planning period. Figure 45 depicts the forecast for light-duty (passenger cars) EVs through the baseline forecast, AATE Scenario 2, and AATE Scenario 3 sensitivities. Scenario 3 accounts for much of the general choice model aspect of the forecast which aligns with CARB's ZEV regulations. Scenario 3 projects 7.1 million additional ZEVs compared to just 5.4 million ZEVs under the baseline forecast. (See "CEC Integrated Energy Policy Report Forecast" on page 2-14 for information about AATE scenarios.)



Figure 45. AATE Light-Duty ZEV Populations<sup>29</sup>

<sup>&</sup>lt;sup>29</sup> *Ibid.;* p. 65.

## Light Duty Electric Vehicle Energy Forecast

Accompanying this stunning increase in ZEVs shown in Figure 45 is the resultant need for additional energy. Figure 46 shows the additional energy requirement as forecast by the IERP due to additional ZEVs through 2035. In total, an additional 28.5 GWh of energy is required by 2035.



Figure 46. Light-Duty Electric Vehicle Energy Forecasts<sup>30</sup>

The graph in Figure 46 was derived from Table 75: Baseline Light-Duty Electric Vehicle Energy Forecast (page E-5).

<sup>&</sup>lt;sup>30</sup> *Ibid.;* addendum TN248375\_20230112T121637\_CEDU 2022 Baseline Forecast - STATE.xlsx, Form 1.1
## THE GEYSERS GEOTHERMAL GENERATION FORECASTS

NCPA operates the Geysers Geothermal Project as a baseload facility. The Project comprises two plants (Plant 1 and Plant 2), each with two units (although one unit in Plant 2 is nonoperational).

Water injection is necessary to operate the plant. Water injection continues to be essential in maintaining reservoir pressure and mitigating steam production decline rates. This water is composed of wastewater from the Southeast Geysers Effluent Pipeline (SEGEP) and steam condensate from the power plants. Drought conditions have caused the amount of injected wastewater to be intentionally reduced over the last few years.

The wastewater is composed of half freshwater from Clearlake and half secondary treated wastewater. (The ratio in 2021 was 73 percent wastewater and 27 percent freshwater.) Yolo County owns the freshwater rights, which the county withholds during drought conditions. NCPA's right to that freshwater expires at the end of 2026, although those rights could be extended.

NCPA expects the Geysers Geothermal Project to operate on reduced water injection amounts since California is still experiencing drought conditions, 2023 conditions notwithstanding. 2021 showed that steam production from reduced water injections has moderated and is expected to continue an annual 0.8 percent decline. As such, capacity and energy rates are forecast to decline over the planning period.

Figure 47 shows the historical and forecast net capacity generation for the Geysers Plant 1 and Plant 2.



Figure 47. Historical and Forecast Average Net Capacity Generation: Geysers Plant 1 & Plant 2<sup>31</sup>

<sup>&</sup>lt;sup>31</sup> NCPA Steam Field Operations & Forecast Report—April 2022; Figure 14, p. 23.

Figure 48 shows the historical and forecast net energy generation for the Geysers Plant 1 and Plant 2.



Figure 48. Historical and Forecast Net Energy Generation: Geysers Plant 1 & Plant 2<sup>32</sup>

For more detail, see Table 77: The Geysers Geothermal Plants 1 & 2 Annual Energy Forecasts (page E-7) and Table 78: The Geysers Geothermal Plants 1 & 2 Four-Year Monthly Capacity Forecasts (page E-8).

<sup>&</sup>lt;sup>32</sup> *Ibid.*; Figure 15, p. 24.

# 4. Resources and Capacity

## CURRENT NCPA AND MEMBER RESOURCES

#### NCPA Resource Assets

NCPA, through its members, owns five natural gas-fired CC and CT thermal resources (including the Lodi Energy Center-LEC), four geothermal units (part of The Geysers geothermal project), and two hydroelectric facilities (a series of dams and generators in central east California along the north fork of the Stanislaus River). LEC, located in the city of Lodi, is a 302.58 MW natural gas-fired, combined-cycle facility consisting of one natural gas-fired combustion turbine generator, one condensing steam turbine generator, a heat recovery steam generator, a condensing steam turbine generator, a natural gas-fired auxiliary boiler, and a cooling tower.

NCPA is also a Schedule Coordinator and has Scheduling Agent Services agreements with energy providers and LSEs.

The CCs and CTs power plants are efficient and flexible dispatchable resources. They play a key role in integrating renewable resources to help transition to a renewable and zero carbon- generation portfolio. These plants make up 50 percent of our NCPA member capacity.

Table 11 lists the NCPA units,	their CAISO resource ide	entifier, nameplate MW, o	energy output
(MWh), and RPS status.			

Unit	Resource ID	Member MW	Energy MWh	<b>RPS Status</b>
Natural Gas				
Alameda CT Unit 1	ALMEGT_1_UNIT 1	25.00	11,699	None
Alameda CT Unit 2	ALMEGT_1_UNIT 2	25.00	11,695	None
Lodi Energy Center CC	LODIEC_2_PL1X2	132.35	902,792	None
Lodi CT Unit	LODI25_2_UNIT 1	25.00	5,290	None
Lodi STIG CT Unit	STIGCT_2_LODI	31.69	5,001	None
Natural Gas Totals	—	239.04	936,477	—
Geothermal				
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	33.33	212,807	RPS Eligible
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	34.26	218,776	RPS Eligible
The Geysers Plant 2 Unit 3	NCPA_7_GP2UN3	00.00	0.00	RPS Eligible
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	45.24	288,842	RPS Eligible
Geothermal Totals	—	112.83	720,425	_
Hydroelectric				
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	217.24	459,758	Zero Carbon
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	5.28	24,316	RPS Eligible
Hydroelectric Totals	_	222.52	483,982	_
Resource Totals	-	574.39	2,140,976	-

#### Table 11. NCPA Generation Resource Assets

Appendix B. NCPA and Member Resources (starting on page B-1) contains a plethora of information about the resources listed in Table 12 and Table 11:

- B1. NCPA and Member Resources by Type (page B-2) contains detailed information about each member and NCPA resources, by resource type. See Table 22 through Table 28.
- B2. Member Generation Resources (page B-9) contains detailed information about the owned and PPA resources for each NCPA member. See Table 29 through Table 40.
- B3. NCPA and Member Resource Allocation (page B-21) details the member percentage allocation to owned generation and PPAs, by resource type. See Table 41 through Table 46. Table 44 lists the member allocation for WAPA hydroelectric resources.
- B4. Resource Net Qualifying Capacity Data for 2023 (page B-27) lists the NQC data for each resource for every month in 2023, by resource type. See Table 48 through Table 52. Table 55 lists the planned maintenance outages that affect the NQC monthly allocations.

Figure 49 compares the size and percent of total nameplate capacity of the NCPA LEC, the four CTs, three geothermal units, and two hydroelectric resources. Capacity is evenly split between the thermal CC and CT resources and the renewable and zero-carbon geothermal and hydroelectric resources.



Figure 49. NCPA 2023 Nameplate Capacity Comparison

### Member Resource Assets

Members own or have PPAs with six natural gas fired thermal resources, nine landfill biogas resources, two geothermal PPAs (scheduled to come online in 2025 and 2027), sixteen hydroelectric facilities, fourteen solar plants, and five wind plants with a total generating capacity of 1,867.96 MW. In addition, members hold ownership in five natural gas fired thermal resources, two hydroelectric facilities, and four geothermal units owned by NCPA for a total generating capacity of 574.39 MW. In total, members have access to 2,442.35 MW of capacity.

Table 12 lists member resources by type, and contains each unit's CAISO resource identifier, owner, member MW, energy MWh (for 2023), and RPS status. The energy MWh for Calpine Geothermal Phase I and Cimarrón Wind come online in 2025; and Calpine Geothermal Phase II comes online in 2027. All landfill biogas, geothermal, small run-of-river hydroelectric, solar, and wind resources are eligible to fulfill the state's RPS requirements. The large hydroelectric facilities satisfy the state's zero-carbon requirements and are eligible for meeting the state's clean energy mandate.

Unit	Resource ID	Owner	Member MW	Energy MWh	RPS Status
Thermal Non-Renewable					
Cooperatively-Owned Back-Up Generator	PALALT_7_COBUG	PAL	4.50	652	None
Donald Von Raesfeld Project	DUANE_1_PL1X3	SVP	147.80	1,105,607	None
Gianera Peaker GT Unit 1	CSCGNR_1_UNIT 1	SVP	24.75	2,830	None
Gianera Peaker GT Unit 2	CSCGNR_1_UNIT 2	SVP	24.75	2,830	None
High Sierra Cogeneration Aggregate	PLMSSR_6_HISIER	PLU	6.00	25,236	None
Santa Clara Cogeneration #1	CSCCOG_1_UNIT 1	SVP	3.50	5,099	None
Totals	-	-	211.30	1,142,254	-
Landfill Biogas					
Ameresco Forward Landfill	WEBER_6_FORWRD	PPA	4.20	31,483	RPS Eligible
Ameresco San Joaquin Landfill	CORRAL_6_SJOAQN	PPA	4.30	37,607	RPS Eligible
Ameresco Vasco Landfill	CAYTNO_2_VASCO	PPA	4.30	32,867	RPS Eligible
G2 Landfill	WHEATL_6_LNDFIL	PPA	1.60	6,253	RPS Eligible
Johnson Canyon Landfill	GONZLS_6_UNIT	PPA	1.42	12,439	RPS Eligible
Keller Canyon Landfill	KIRKER_7_KELCYN	PPA	3.56	31,186	RPS Eligible
Neal Road Landfill	ESQUON_6_LNDFIL	PPA	2.10	18,396	RPS Eligible
Ox Mountain Landfill	OXMTN_6_LNDFIL	PPA	10.62	93,032	RPS Eligible
Santa Cruz Landfill	GRNVLY_7_SCLAND	PPA	3.04	26,630	RPS Eligible
Totals	-	-	35.14	289,893	_
Geothermal*		•			
Calpine Geothermal Phase I	Portfolio	PPA	50.00	418,670	RPS Eligible
Calpine Geothermal Phase II	Portfolio	PPA	50.00	412,650	RPS Eligible
Totals	_	-	100.00	831,320	-
Hydroelectric§					
Beardsley Hydro	BEARDS_7_UNIT 1	PPA	11.50	48,371	RPS Eligible
Black Butte Hydro	BLCKBT_2_STONEY	SVP	6.20	7,886	RPS Eligible
Camp Far West Hydro	CAMPFW_7_FARWST	PPA	6.80	25,628	RPS Eligible
Combie South Hydro	HIGGNS_1_COMBIE	PPA	0.00	0	RPS Eligible
Donnells Hydro	DONNLS_7_UNIT	PPA	72.00	228,089	Zero Carbon
Forbestown Hydro	FORBST_7_UNIT 1	PPA	30.10	171,999	Zero Carbon
Friant Hydro I	FRIANT_6_UNITS	PPA	25.00	66,262	RPS Eligible
Grizzly Hydro	GRIZLY_1_UNIT 1	SVP	17.60	0	RPS Eligible
Kelly Ridge Hydro	KELYRG_6_UNIT	PPA	8.84	59,481	RPS Eligible
Quinten Luallen Hydro	WOODWR_1_HYDRO	PPA	7.30	39,753	RPS Eligible
Rio Bravo Hydro	RIOBRV_6_UNIT 1	PPA	14.00	27,502	RPS Eligible

# 4. Resources and Capacity Current NCPA and Member Resources

Unit	Resource ID	Owner	Member MW	Energy MWh	RPS Status
Sandbar Hydro	SNDBAR_7_UNIT 1	PPA	16.00	2,720	RPS Eligible
Sly Creek Hydro	SLYCRK_1_UNIT 1	PPA	10.43	13,855	RPS Eligible
Stony Gorge Hydro Aggregate	ELKCRK_6_STONYG	SVP	4.90	7,139	RPS Eligible
Tullock Hydro	TULLCK_7_UNITS	PPA	25.90	109,807	RPS Eligible
Ukiah Lake Mendocino Hydro	UKIAH_7_LAKEMN	UKI	3.50	6,906	RPS Eligible
Woodleaf Hydro	WDLEAF_7_UNIT 1	PPA	48.16	306,956	Zero Carbon
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	PPA	269.00	456,673	Zero Carbon
WAPA Central Valley Project	NCPA_TRCYPGAE_I_F_MHBR02	PPA	136.00	231,813	Zero Carbon
Totals	-	_	713.23	1,810,840	_
Solar		•	L		
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B	PPA	17.00	44,379	RPS Eligible
Aquamarine Westside Solar	AQUAWS_2_AQWSR1	PPA	22.50	58,514	RPS Eligible
Astoria Solar	ASTORA_2_SOLAR2	PPA	10.00	30,038	RPS Eligible
Central 40 Solar	CENT40_1_C40SR1	PPA	40.00	92,521	RPS Eligible
EE Kettleman Solar	EEKTMN_6_SOLAR1	PPA	20.00	51,557	RPS Eligible
Elevation Solar C (Big Sky)	BIGSKY_2_SOLAR2	PPA	40.00	109,981	RPS Eligible
Frontier Solar (Crow Creek)	CRWCKS_1_SOLAR1	PPA	20.00	51,037	RPS Eligible
Gridley Main One Solar	not applicable	PPA	0.70	1,887	RPS Eligible
Gridley Main Two Solar	GRIDLY_6_SOLAR	PPA	1.29	3,774	RPS Eligible
Hayworth Solar	LAMONT_1_SOLAR4	PPA	26.66	51,495	RPS Eligible
Rosamond Solar (Palo Alto)	RTEDDY_2_SPASR4	PPA	26.00	75,418	RPS Eligible
Rosamond One Solar (SVP)	RSMSLR_6_SOLAR1	PPA	20.00	58,206	RPS Eligible
Western Antelope Blue Sky Ranch B Solar	BIGSKY_2_SOLAR4	PPA	20.00	53,172	RPS Eligible
Totals	-	—	264.15	681,979	_
Wind‡					
Big Horn 1 Wind	NCPA_TRCYCOTP_I_F_CO10	PPA	105.00	263,502	RPS Eligible
Big Horn 2 Wind	NCPA_TRCYCOTP_I_F_C011 NCPA_TRCYCOTP_I_F_C012	PPA	17.50	42,006	RPS Eligible
Cimarrón Wind	tbd	PPA	300.00	748,627	RPS Eligible
High Winds	BRDSLD_2_HIWIND	PPA	30.00	71,214	RPS Eligible
Manzana Wind	MANZNA_2_WIND	PPA	50.00	136,297	RPS Eligible
Totals	-	_	502.50	1,261,646	_
Totals	-	—	1,826.32	6,017,932	—

Table 12. Member Generation Resource Assets

**Notes:** \* *Geothermal.* Calpine Geothermal Phase I begins with a PPA for 50 MW with a commercial online date (COD) of 2025; the Calpine Geothermal Phase II adds 50 MW of PPA capacity with a COD of 2027.

§ *Hydroelectric.* Forbestown, Kelly Ridge, Sly Creek, and Woodleaf are all part of the South Feather Hydroelectric Power Project. Beardsley, Donnells, Sandbar, and Tullock are all part of the Tri-Dam Hydroelectric Project. Grizzly Hydro, currently an outage due to PG&E transmission problem, is scheduled to come back online in June 2024. Two percent of WAPA generation contributes towards RPS requirements. *‡ Wind.* Cimarrón Wind has a COD of 2025.

Figure 50 depicts the resource capacity (MW) mix for all members in the IARP study in 2023; Figure 51 depicts the related energy (MWh) mix. Thermal natural gas capacity makes up 18.76 percent of total capacity and 25.48 percent of energy. The zero-carbon large hydroelectric capacity makes up 15.31 percent of total capacity and 14.30 percent of energy. The remaining renewable resources are RPS eligible. In total, these renewable resources make up approximately two-thirds (65.93 percent) of total capacity and 60.22 percent of energy, a total of almost 4,913 GWh. These amounts, however, are the aggregate totals; the resource mix for each member varies—sometimes significantly—from these totals.



Figure 50. Member Resource Capacity Mix: 2023



Figure 51. Member Resource Energy Mix: 2023

## Planned Renewable Generation: Modeled

Five completed or pending renewable generation projects were included in the modeling for the planning period to better determine projected peak demand and energy requirements for NCPA and its members. Table 13 details these projects.

Project Name	Owner	Туре	MW	Capacity	% Capacity	COD
Antelope Phase 1 B Solar	AES	Solar	20.0	17.0	100%	Nov-22
Rosamond Solar (Palo Alto)	Clearway	Solar	26.0	26.0	100%	Jan-23
Calpine Geothermal Phase I	Calpine	Geothermal	50.0	50.0	100%	2025
Calpine Geothermal Phase II	Calpine	Geothermal	50.0	50.0	100%	2027
Cimarrón Wind	Sempra	Wind	300.0	300.0	100%	2025

#### Table 13. NCPA Planned Renewable Generation Resources Modeled

Calpine Geothermal adds 50 MW of capacity in 2025 and an additional 50 MW in 2027. Members who are participating in this PPA can claim both RECs and RA capacity from the agreement. The contract is structured as a 7x24 baseload delivery for its entire term; REC and RA values are consistent with the member allocation. In Appendix B3. NCPA and Member Resource Allocation by Type, see "Geothermal Resource Allocation" (page B-23) for the member allocation of the Calpine Geothermal resource.

# RESOURCE RETIREMENTS AND PPA EXPIRATIONS

Over the planning period, three natural gas thermal facilities are scheduled to be repowered using renewable resources. Their total nameplate generation is 57.90 MW, with an NQC value of 52.90 MW. This represents 2.07 percent of the total thermal generation, and 2.64 percent of NQC MW. Table 14 lists these thermal resources.

Resource	Resource ID	Nameplate MW	NQC MW
Santa Clara Cogeneration #1	CSCCOG_1_UNIT 1	3.50	3.00
Lodi STIG CT Unit	STIGCT_2_LODI	49.90	49.90
Cooperatively-Owned Back-Up Generator	PALALT_7_COBUG	4.50	0.00
Totals	-	57.90	52.90

#### Table 14. NCPA Non-Renewable Generation Planned Repower

Over the planning period, the PPAs for 44 renewable resources are expiring. Their total nameplate generation is 1,527.30 MW, with an NQC value of 864.86 MW. This represents 54.57 percent of the total renewable generation whose PPA is expiring, and 43.19 percent of the total renewable NQC MW PPA retirement. Some of these PPAs are expected to be renewed, others are not expected to be renewed, while some are uncertain. The capacity planning model assumes that all PPAs are retiring and that none are expected to be renewed.

# NCPA MEMBER ENERGY INFORMATION

## Greenhouse Gas and Resource Adequacy Allocations

NCPA participates in the CARB allowance auctions to purchase volumes of allowances necessary to meet the compliance requirements for the Lodi Energy Center, the Lodi STIG CT, and other market purchases.

NCPA can seek to sell excess RA from one member to another—provided the member has an excess amount of RA available—or NCPA can sell this excess RA to a third party. These sales can occur subject to underlying authorities granting NCPA permission to conduct these sales.

# WESTERN ENERGY MARKET

## The Western Interconnection and WECC

FERC reports to the United States Department of Energy (DOE) as part of the Executive Branch of government. FERC is an independent agency that regulates high voltage interstate transmission of electricity and natural gas transportation, transmission open access, and the office of markets and reliability. FERC governs by delegating to the Electric Reliability Organization (ERO), NERC: the North American Electric Reliability Corporation. In 2007, NERC was established as the ERO with oversight from FERC.

NERC is responsible for developing and enforcing reliability standards. In its compliance role, NERC issues sanctions to the six regional reliability entities across the United States and Canada made up of interconnections and BAs. NERC delegates authority to each of the regional entities. Figure 52 depicts a map of the NERC interconnection regions in North America.



Figure 52. North American NERC Regions and Interconnections<sup>33</sup>

These interconnections help maintain reliability by enabling generators to supply power to many load centers through a network of transmission routes. This power flow is managed by the BAs. There are three main interconnections in the United States, each with one or more BAs:

- Eastern Interconnection. 36 BAs: 31 in the United States and 5 in Canada.
- Western Interconnection. 38 BAs: 35 in the United States, 2 in Canada, and 1 in Mexico.
- ERCOT. 1 BA.

<sup>&</sup>lt;sup>33</sup> https://www.nerc.com/AboutNERC/keyplayers/Pages/default.aspx

The three main interconnections operate independently from each other with limited transfers of power between them. The network structure of the interconnections helps maintain the reliability of the power system by providing multiple routes for power to flow and by allowing generators to supply electricity to many load centers. This redundancy helps prevent transmission line or power plant failures from causing interruptions in service.

BAs ensure that power system demand and supply are finely balanced, all in real time. A BA is a set of resources and interchange meters that have dispatchable generation, demand, and interchange. BAs ensure the availability of a sufficient supply of electricity to serve expected demand, including electricity transfers with other BAs. They maintain operating conditions under mandatory reliability standards issued by NERC and approved by FERC.

Most BAs are individual utilities, but there are also seven RTOs—or independent system operators (ISO) which are RTOs—that act as BAs.



Figure 53. Map of Seven Nationwide RTOs<sup>34</sup>

Most of the Eastern Interconnection in the United States is managed by five RTOs: ISO New England (ISONE), New York ISO (NYISO), PJM (Pennsylvania-New Jersey-Maryland) Interconnection (PJM), Midcontinent ISO (MISO), and Southwest Power Pool (SPP), as well as two independent utility BAs. Most of Texas is managed by the Electric Reliability Council of Texas (ERCOT) BA. SERC is managed by the Tennessee Valley Authority (TVA) and Southern Company (SOCO) and 18 utility BAs, several of which are organized as the Florida Electric Power Coordinating Group (FEPCG).

The Western Interconnection in the United States, however, is managed by CAISO and 34 independent utility BAs.

<sup>&</sup>lt;sup>34</sup> https://www.eia.gov/todayinenergy/detail.php?id=790

These seven RTOs, including CAISO, operate and manage approximately 60 percent of power in the United States.



Figure 54 shows the three interconnections, the RTOs, and the BAs in each interconnection.

Figure 54. Interconnections, RTOs, and BAs<sup>35</sup>

In 2007, NERC delegated authority to the Western Electricity Coordinating Council (WECC) to enforce its compliance standards, and designated WECC as the regional entity for the Western Interconnection. WECC coordinates the bulk electric system (BES) reliability for the Western Interconnection. WECC has responsibility for over 300 member organizations, and governs reliability compliance in the region, including NCPA and all its members. Its two core missions are reliability and transmission access.

Each of WECC's over 300 member organization operates within a BA.

<sup>&</sup>lt;sup>35</sup> https://www.eia.gov/todayinenergy/detail.php?id=27152

Western Interconnection Balancing Authorities (38):

AESO\* - Albert Electric System Operator AVA - Avista Corporation AZPS - Arizona Public Service Company BANC - Balancing Authority of Northern California BCHA - British Columbia Hydro Authority BPAT - Bonneville Power Administration-Transmission CFA - Comision Federal de Electricidad CHPD - PUD No. 1 of Chelan County BCH/ CAISO - California Independent System Operator AFSC DEAA - Arlington Valley, LLC DOPD - PUD No. 1 of Douglas County EPE - El Paso Electric Company GCPD - PUD No. 2 of Grant County GRID - Gridforce GRIF - Griffith Energy, LLC GRMA - Sun Devil Power Holdings, LLC GWA - NaturEner Power Watch, LLC HGMA - New Harquahala Generating Company, LLC IID - Imperial Irrigation District IPCO - Idaho Power Company LDWP - Los Angeles Department of Water and Power NEVP - Nevada Power Company IPCC NWMT - NorthWestern Energy PACW PACE\* - PacifiCorp East PACW\* - PacifiCorp West PGF - Portland General Electric Company PACE PNM - Public Service Company of New Mexico PSCO - Public Service Company of Colorado PSEI - Puget Sound Energy SCL - Seattle City Light SRP - Salt River Project TEPC - Tucson Electric Power Company - Turlock Irrigation District TIDC TPWR - City of Tacoma, Department of Public Utilities WACM - WAPA, Colorado-Missouri Region WALC - WAPA, Lower Colorado Region EPE WAUW - WAPA, Upper Great Plains West WWA - NaturEner Wind Watch, LLC

Figure 55 lists the 38 BAs in WECC and their approximate geographic location.

\* AESO is not a NERC-registered BA; PACE and PACW are a single registered NERC entity but are two BAs.

Figure 55. Thirty-Eight WECC Balancing Authorities<sup>36</sup>

The basic responsibility of CAISO and these BAs is to balance demand with transfers and generation, ensuring effective control of electrical frequency across the Western Interconnection. Short term balancing is focused on load-frequency regulation whereas long term balancing concerns load following. BAs utilize automatic generator control (AGC) to adjust generator loads over short time periods to provide these balancing services. To ensure consistency across the power system, NERC has established specific reliability standard requirements applicable to BAs. WECC conducts routine audits of the BAs to ensure they comply with all applicable NERC standards.

## WECC Balancing Authorities: CAISO and BANC

The NCPA members included in the modeling and analysis for this IARP belong to CAISO; the remaining four belong to BANC. Both BAs provide access to the ISO market through a wealth of services, including:

- Preparing assistance for entry into WEIM.
- Ensuring open and non-discriminatory access to the transmission grid.

<sup>&</sup>lt;sup>36</sup> https://www.wecc.org/Administrative/Balancing\_Authorities\_JAN17.pdf

- Providing access for DER providers to participate in the ISO markets.
- Participating as price responsive demand response (DR) programs in the ancillary services market and as curtailable demand in real-time.
- Automating dispatch and real-time interchange for dynamic transfers between two BAs.
- Accessing energy storage to provide flexibility in balancing the grid.
- Controlling the operations of transmission facilities and the ability to collect access charges from users.
- Owning the local distribution systems that take energy from the high voltage transmission system managed by the ISO to provide retail electric service to end-use customers.

### Western Energy Imbalance Market

CAISO established WEIM in 2014 as a real-time energy market. WEIM's advanced market system automatically finds low-cost energy to serve consumer demand across the west. Currently, 22 utilities, irrigation districts, and BAs across 11 states participate in WEIM.<sup>37</sup>

Because WEIM automatically finds lower-cost resources in real time, participants can buy and sell inexpensive power close to the time electricity is consumed, improving the balance of supply and demand. WEIM manages congestion on transmission lines to enhance grid reliability. The market also improves the integration of renewable energy by making excess renewable generation available to participating utilities at low cost.

WEIM provides several benefits to WECC by:

- Reducing the amount of spinning reserves that utilities must carry to meet demand.
- Improving the efficiency of the regional transmission system.
- Reducing carbon emissions by improving the integration of renewable energy.
- Enhances reliability by increasing an operator's operational visibility across power grids.

### Extended Day-Ahead Market

The EDAM is a voluntary, day-ahead electricity market jointly approved by CAISO's Board of Governors and WEIM's Governing Body in February 2023. It is designed to build on WEIM's benefits by increasing regional coordination, supporting energy policy goals, and meeting demand with cost effective generation across WECC. Essentially, EDAM would enhance the benefits already provided by WEIM.

<sup>&</sup>lt;sup>37</sup> WEIM participants are Arizona Public Service, Avangrid, Avista, Balancing Authority of Northern California (BANC), Bonneville Power Administration, California ISO (CAISO), El Paso Electric, Idaho Power Company, Los Angeles Department of Water & Power, NorthWestern Energy, NV Energy, PacifiCorp, Portland General Electric, Powerex, Public Service Company of New Mexico, Puget Sound, Salt River Project, Seattle City Light, Tacoma Power, Tucson Electric Power, Turlock Irrigation District, and the WAPA Desert Southwest Region.

A 2022 study quantified the potential savings. EDAM would:

- Decrease power production and operational expenses across WECC states by 4.5 percent, saving up to \$543 million annually. California's expenses would decrease by 6.2 percent, saving \$214 million annually.
- Reduce GHG emission by 1.5 percent or 2.92 million metric tons annually.
- Avoid certain capacity resources through an RA program, saving WECC states up to \$557 million—and California \$95 million—in avoided investments.
- Save WECC states as much as \$1.2 Billion annually, with California realizing \$309 million annually.

EDAM is scheduled to be fully implemented in 2025.

#### Western Resource Adequacy Program

Replacing retiring thermal generation with variable energy resources has led to questions about whether the region will continue to have an adequate supply of electricity during critical hours. Numerous studies have shown RA to be an urgent and immediate challenge. Simultaneously, customers are consuming more energy and public policies—such as transportation and building electrification—are contributing to increasing loads.

The Western Resource Adequacy Program (WRAP) started at the request of the Western Power Pool (WPP) and by many in the industry who were concerned about the issue of RA in the west. WRAP is the first regional reliability planning and compliance program.

WRAP aims to enhance reliability by delivering a region-wide approach for assessing and addressing RA. Through the collaboration of participants, WRAP can paint a more accurate, regional picture of resource needs and supply, address resource adequacy, and ensure reliability by taking advantage of operating efficiencies, diversity, and sharing pooled resources. WRAP also can maintain existing responsibilities for reliable operations and observe existing frameworks for planning, purchasing, and delivering energy.

In February 2023, FERC approved the tariff for WRAP, clearing the way for its full implementation. Twenty-two utilities have already committed to participate in WRAP.<sup>38</sup>

Later in 2023, all participants are expected to join WRAP's future showing and demonstrate they have secured their share of the region's energy needs. The operational component, in winter 2023 and summer 2024, is when utilities with a deficit can tap into the pool of shared resources if needed.

Ultimately, WRAP expects to maintain reliable service using fewer overall resources, ensure adequate resources during extreme weather events, and help enable the transition to clean energy.

<sup>&</sup>lt;sup>38</sup> As of April 6, 2023, participants included Arizona Public Service, Avista, Bonneville Power Administration, Calpine, Chelan County PUD, Clatskanie PUD, Eugene Water & Electric Board, Grant PUD, Idaho Power, Northwestern Energy, NV Energy, PacifiCorp, Portland General Electric, Powerex, Puget Sound Energy, Public Service Company of New Mexico, Salt River Project, Seattle City Light, Shell Energy, Snohomish County Public Utility District, Tacoma Power, and The Energy Authority.

## WAPA and the Central Valley Project

WAPA operates within WECC to conduct power sales, operate transmission lines, and provide maintenance and engineering services. NCPA and all its members belong to WAPA's Sierra Nevada region.

Sierra Nevada offers an array of diverse services to NCPA and its members. They provide scheduling coordinator services, matching loads and supplies for customers; manage projects; ensure environmental protection; establish and monitor employee safety and system security programs; manage administrative functions; schedule power and handle customer billing; analyze hydroelectric resources; ensure system maintenance; administer contracts; set rates; provide technical assistance regarding efficient energy use; and oversee finances and budgeting. Their Energy Services Program provides technical assistance for infrared scanning for energy leaks, efficient lighting, and DSM programs.

Sierra Nevada markets and transmits wholesale electric power from multi-use water projects in northern and central California, and portions of Nevada. Most of that power is generated by power plants owned and operated by the Bureau of Reclamation from the California CVP, including those at Shasta, Folsom, Trinity, and New Melones dams.

Federal reclamation law dictates where CVP hydroelectric power is delivered. 25 percent to 30 percent of CVP generation first meets authorized loads, including irrigation pumping, municipal and industrial needs, authorized fish and wildlife purposes, and station service at CVP facilities. WAPA markets the remaining CVP generation to federal agencies, military bases, municipalities, public utilities districts (including NCPA), irrigation and water districts, and state agencies.

The CVP consists of 18 dams that create reservoirs to store up to 13 million acre-feet of water. The project's 615 miles of canals irrigate an area 400 miles long and 45 miles wide— almost one-third of California. Power plants at the dams have an installed capacity of 2,112 MW and provide enough energy for 650,000 people. Transmission lines total about 956 circuit-miles. Transmission services include point-to-point service—transmission between points of receipt and delivery. WAPA operates and maintains the transmission system and markets excess capacity under its Open Access Tariff.

Silicon Valley Power contracts for 136 MW of power from the WAPA CVP generation; the remaining NCPA members contract for 269 MW. These contracts end on December 31, 2024. All NCPA members are renewing their PPAs for WAPA generation and have approved WAPA's 2025 Power Marketing Plan.

# 5. Demand-Resource Balance

Resource supply must balance with energy demand, every hour of every day of the year. And there must always be some reserve available to account for the moment by moment fluctuation in demand. This section explains how NCPA currently meets these requirements, and how they will be met in the future, all while meeting regulatory and statutory goals.

## ENERGY NET BALANCE ANALYSIS

The current member nameplate capacity is shown in Figure 56. Wind, solar, and hydro make up a significant share of the portfolio.



Figure 56. Nameplate Capacity Versus Forecasted Peak Demand

The Capacity Resource Accounting Table (CRAT) depicts the annual peak capacity demand in each year and the contribution of NQC to meet that demand. The peak demand line in the figure shows coincident July peak demand with a 17 percent planning reserve margin.

The CRAT (Figure 57) shows that NCPA has adequate capacity to meet peak load growth until 2026—that the NQC meets forecasted peak demand plus a 17 percent PRM. The graph shows a diverse portfolio of hydroelectric, geothermal, solar, wind, and natural gas to supply their

capacity. NCPA must add resources by 2027 to maintain reliable operations. By the end of the planning period, there is approximately an 1,000 MW shortfall without building new resources.



#### Figure 57. Net Qualifying Capacity of Existing and Planned Resources (CRAT)

The Energy Balance Table (EBT) shows the annual total energy demand and the annual estimates for energy supply from current generation resources. Figure 58 shows that NCPA is short on energy with that deficit growing over time, and that the percentage of energy drops

over the planning period. The result is an increasing reliance on market purchases to meet increasing demand.



Figure 58. Energy Balance Table (EBT)

The RPS Procurement Table (RPT) summarizes member generation to meet RPS and clean energy requirements. Figure 59 shows that NCPA meets RPS requirements over the short-term, but needs to add renewables or buy RECs to meet the 60 percent RPS mandate by 2030 and the 90 percent clean energy mandate by 2035.



Figure 59. RPS and Clean Energy Generation Procurement Table (RPT)

The GHG Emissions Accounting Table (GEAT) shows the annual GHG emissions associated with each natural gas resource in the NCPA and member portfolio mix. Figure 60 shows a sharp decline in GHG emissions due to conversion of natural gas plants to hydrogen.



Figure 60. GHG Emissions Accounting Table: Pool + SVP Resources (GEAT)

As the natural gas plants convert to hydrogen, carbon emissions will drop significantly as the only remaining natural gas resource will be Donald Von Raesfeld. Figure 61 shows the emissions from NCPA resources only.



Figure 61. GHG Emissions Accounting Table: NCPA Resources (GEAT)

NCPA has studied the potential to transition at least a portion of the natural gas fleet to green hydrogen via electrolysis. Candidates for conversion to hydrogen include the Lodi STIG, LEC, Lodi CT, and Alameda CT units. The Lodi STIG unit will retire in 2026 at which time the model assumes a hydrogen-ready unit will replace it. The remaining units, LEC, Lodi CT, and Alameda CT, are modeled to convert to hydrogen in 2030 to 2032. For these units, there is no set retirement date yet.

## **RPS ADEQUACY**

California utilities are required to meet 60 percent of load with renewable sources by 2030 per the Renewable Portfolio Standard (RPS) set by SB 100. Beyond the RPS mandates, utilities must meet 90 percent of load with carbon-free resources by 2035 and 95 percent of load with clean, carbon-free resources by 2040.

Figure 62, Figure 63, and Figure 64 show the percentage of RPS generation and the sum of RPS and clean generation for three key years:

- 2024, the end of Compliance Period 4 when the RPS requirements is 44 percent of retail sales.
- 2027, the end of Compliance Period 5 when meeting the RPS requirement of 52 percent of retail sales is mandated.
- 2030, the end of Compliance Period 6 when meeting the RPS requirement of 60 percent of retail sales is mandated.

The three graphs show the level of compliance from the members' owned and contracted resources. Some members might be required to purchase additional RECs to meet their RPS obligations. The City of Palo Alto Electric Utility purchases level 3 RECs to cover the entirety of their load. The figures do not include banked RPS (Historical Carry-over REC are not included).

Figure 62 shows the percentage of RPS generation and the sum of RPS and clean generation for members for 2024 when the RPS requirement is 44 percent of retail sales. The generation shown in Figure 62 does not include banked credits from past years, nor does it include REC purchases. The figure provides a reference point for the level of generation from RPS and clean resources in the NCPA portfolio and is not meant to project the total RPS position of members in 2024.



Figure 62. RPS and Clean Generation by Member Compared to Demand: 2023

Figure 63 shows the percentage of RPS generation and the sum of RPS and clean generation for members for 2027 when the RPS requirement is 52 percent of retail sales.



Figure 63. RPS and Clean Generation by Member Compared to Demand: 2027

Figure 64 shows the percentage of RPS generation and the sum of RPS and clean generation for members for 2030 when the RPS requirement is 60 percent of retail sales.



Figure 64. RPS and Clean Generation by Member Compared to Demand: 2030

# 6. Resource Analysis and Results

Ascend and NCPA staff worked together to build a power system model that includes the NCPA pool members plus Silicon Valley Power (and omits BART). The model includes member loads and resources. Ascend used the model to provide knowledge on the future needs for capacity, energy, and renewables. Ascend also performed a capacity expansion analysis to determine the least-cost set of resources to meet NCPA member needs in the future.

Ascend used PowerSIMM for all modeling work. PowerSIMM provides a suite of analytical applications covering production cost studies and capacity expansion models used in the NCPA analysis. Models in PowerSIMM start with weather simulations that act as a driver of load, renewables, and market power prices. Simulations in PowerSIMM provide an accurate representation of power system operations by preserving important relationships between weather, load, renewables, and market prices. Ascend provided fundamental price inputs including monthly peak and off-peak prices, price volatility, and daily price shapes. The models incorporated Ascend's long term forecasts for natural gas and power prices including projections of price volatility and daily price shapes.

Ascend worked with NCPA to ensure the models provided accurate results. Once all parties were satisfied with the model's behavior, Ascend provide base case outputs showing future capacity, energy, renewables, and GHG emissions for the pool plus SVP, as well as individual members. The results provided an initial view of the resource needs for the pool plus SVP. Once the base case models were complete, Ascend configured future resources for the capacity expansion model. Results from the capacity expansion models show a cost-effective plan for meeting California requirements for RA, RPS, and GHG emissions.

## TIMELINES

#### Short Term: 2023-2026

The short-term planning period focuses on:

- Identifying NCPA member common needs, including existing demand and member-owned resources.
- Identifying conceptual plans for transitional periods, including the effects of electrification and EV charging.
- Evaluating economic conditions.
- Considering the effects of rising temperatures and increasing transmission costs.

### Transition Term: 2027–2030

The transition-term planning period focuses on:

- Identifying new capital resource projects, and how increases in inverter-based resources causes system inertia to drop, which prompts consideration for hydrogen-based combustion for existing power plants.
- Repowering the Lodi STIG with a 50 MW aeroderivative combustion turbine fueled with natural gas and a blend of hydrogen.
- Evaluating energy storage systems (ESS).
- Transitioning LEC to run on a 45% blend of hydrogen and natural gas with full transition in 20.

### Long Term: 2031-2045

The long-term planning period focuses on identifying:

- Baseload resources, such as making capital improvements to The Geysers geothermal power plant.
- Peaking resources, such as repowering Combustion Turbine Projects 1 (CT1) at Lodi and Alameda with 50 MW aeroderivative combustion turbines fueled with hydrogen.
- Researching emerging technology storage resources, such as Plasma Kinetics, a zerocarbon hydrogen solution that captures, stores, and delivers energy.
- Emergency resources, such as an engineering, procurement, and construction-ready (EPC) wildfire and emergency readiness system that mitigates public risk.

## CAPACITY EXPANSION MODELING PROCESS

Capacity expansion models select a combination of future resources that satisfy the model constraints at the least cost. Ascend used PowerSIMM's Automated Resource Selection (ARS) software to provide a least-cost portfolio expansion plan for serving load over the planning period of 2023 to 2045, including both supply-side and demand-side resources. The model of NCPA included loads for all pool members plus SVP along with all supply resources owned or contracted by the pool members and SVP. All load and supply resources are mapped to the actual CAISO nodal prices.

Within the ARS framework, Ascend specified the physical and financial aspects of all candidate resources and created appropriate constraints so the model would select adequate resources to meet the future reserve margin and energy needs of NCPA. ARS selects the timing and quantity of future resource procurements. For example, an option to procure additional solar power in northern California in increments of 25 MW was configured in the model and ARS decided to procure 250 MW in 2025 (and other years).

Resource selection in ARS depends on multiple factors including resource costs over time, capacity contribution towards the reserve margin need, energy generation, and revenue from power market sales. There are also resource specific limits configured to maintain a realistic outcome. For example, geothermal resource procurement was limited to 50 MW per year based on the limited availability of geothermal development.

The ARS model included all existing and planned resources. Planned resources are future resources that are already planned to come online in a particular year. One such example is a geothermal project expected to come online in 2025. New projects in ARS represent hypothetical additions that could be selected to meet future needs.

Ascend ran 10 simulations of NCPA loads, resources, and market prices from 2023 to 2045 for the ARS model. Simulations were hourly and covered a range of future states with weather simulations driving the load, renewables, hydroelectric, and market prices. The model ran dispatch of existing, planned, and candidate resources hourly over the planning period. Resource selection provides the optimal mix of resources to meet NCPA needs over the full range of future conditions.

## Cost Analysis

The capacity expansion model considered the resource options and costs listed in Table 15. Cost projections were based on several sources, including the National Renewable Energy Laboratory's (NREL) Electricity Annual Technology Baseline (ATB) for onshore wind and solar, a Black and Veatch analysis for hydrogen, and Ascend's market research for multiple technologies. Table 15 includes the anticipated effects from the Inflation Reduction Act's (IRA) updated tax credits. The IRA is expected to reduce prices for wind, solar, and energy storage in the near term while prices increase due to inflation in the long term. All figures are in nominal dollars.

Technology	Units	2027	2030	2035	2040	2045
Southern California Solar	\$/MWh	\$35.17	\$29.67	\$31.60	\$53.72	\$69.18
Northern California Solar	\$/MWh	\$40.58	\$34.55	\$37.06	\$59.83	\$76.01
Southern California Wind	\$/MWh	\$51.03	\$45.95	\$47.65	\$69.17	\$83.57
Northern California Wind	\$/MWh	\$55.41	\$50.11	\$52.07	\$73.84	\$88.50
Offshore Wind	\$/MWh	_	_	\$98.77	\$111.80	\$138.79
New Mexico Wind	\$/MWh	_	\$38.96	\$40.25	\$61.33	\$75.30
Wyoming Wind	\$/MWh	_	\$51.93	\$54.00	\$75.88	\$90.67
Pacific Northwest Wind	\$/MWh	\$34.62	\$30.27	\$30.88	\$51.26	\$64.51
California Geothermal (new build)	\$/MWh	\$102.36	\$106.57	\$121.42	\$170.47	\$212.58
Four-hour Li-Ion ESS	\$/kW-month	\$13.34	\$12.14	\$12.57	\$15.96	\$17.90
Eight-hour Li-Ion ESS	\$/kW-month	\$25.92	\$20.29	\$21.02	\$26.68	\$29.93
Ten-hour Flow ESS	\$/kW-month	\$29.17	\$22.84	\$23.65	\$30.03	\$33.69
Nuclear Small Modular Reactor	\$/MWh	_	\$200.00	\$220.82	\$243.80	\$269.17
Hydrogen (CT)*	\$/kW	_	\$2,088.00	\$2,227.00	\$2,389.00	\$2,562.00
Demand Response	\$/kW-month	\$13.87	\$14.72	\$16.25	\$17.94	\$19.81
Energy Efficiency§	\$/MWh	\$15.61	\$16.56	\$18.28	\$20.19	\$22.29
Carbon Capture and Sequestration–Natural Gas CC	\$/kW	_	\$3,362.00	\$3,438.00	\$3,542.00	\$3,737.00

\* Fuel costs not included

§ Cost of energy efficiency would vary by NCPA member

#### Table 15. Modeled Resource Options and Cost Analysis

Nuclear small modular reactor (SMR) costs included transmission and are conservatively assumed to be \$200 per MWh because SMR technology has yet to be implemented. Current cost projections from the Carbon Free Power Project (CFPP) in Idaho are approximately \$85 per MWh. These figures, however, are based only on preconstruction estimates, and are not expected to be fully validated against actual installed costs before the initial commercial operation date, presently projected in 2030. For an SMR installation in the early 2030s, the assumption is that cost projections will increase significantly once the project is developed. For NCPA's ESS expansion modeling, BESS costs are used for ESS to forecast implementation and timing.

### **Cost Projections**

California currently mandates a 100 percent shift to zero carbon energy resources by 2045. As such, the shift in supply forecasts continued growth leading to increasing curtailment, lower average power prices, and increasing price volatility. The heavy solar generation during the day in California is forecast to push on-peak power prices in CAISO below off-peak power prices in the near-term.

#### **Power Price Forecast**

The shift towards low to zero variable cost resources coupled with increasing carbon costs is forecast to result in power prices remaining flat over the long term, even as natural gas prices increase.



Figure 65. CAISO NP-15 Power Price Forecast

#### Natural Gas Prices

As more resources with little to zero variable cost come online, implied heat rates will drop meaning natural gas plants will have a harder time clearing in the market. Natural gas prices are expected to rise over time while power prices are expected to fall in the near-term and remain flat in the mid- to long-term.



Figure 66. PG&E City Gate Natural Gas Price Forecast

#### **Carbon Prices**

Adding to the pressure on natural gas resources, the cost of carbon emissions is expected to continue to rise and accelerate over time. The primary driver of the increase in carbon prices is the rising auction floor prices administratively set by the California Air Resource Board (CARB).



Figure 67. Carbon Price Forecast

### Daily Power Price Profiles

The changing supply mix in California also affects the daily power price profiles. Figure 68, Figure 69, and Figure 70 depict the duck curve—a term coined by CAISO—for expected daily power prices. The duck curve is a graph of power prices over a day that shows the timing of low- and high-cost power.

These three figures demonstrate the duck curve for three indicative months throughout the year. They show how prices remain low in the middle of the day due to the high level of solar generation. However, energy storage reduces the power price difference between midday and evening hours since storage shifts more of the midday generation to the evening peaks. (Note: The price shapes show average prices. For example, in the 2025 line, the average is zero during midday hours, so there will be negative prices during those hours. In future years we expect energy storage to charge during the midday and reduce negative prices a bit.)



Figure 68 depicts the projected duck curve for April.

Figure 68. April Daily Price Shape

Figure 69 depicts the projected duck curve for August. Prices are lower earlier and later in the day during the summer.



Figure 69. August Daily Price Shape

Figure 70 depicts the projected duck curve for December. Prices tend to rise throughout the day during the winter months.



Figure 70. December Daily Price Shape

## **RESOURCE ANALYSIS**

NCPA needs to increase generation from carbon free resources as the clean energy mandates ratchet up over time. In California, solar, hydroelectric, and nuclear power are the dominant sources of carbon free energy. However, nuclear will phase out with the retirement of Diablo Canyon and hydroelectric power is likely to play a smaller role due to more frequent droughts.

Solar power is expected to grow over the next few years. Wind is expected to also grow as more projects are built out-of-state to supply California demand and offshore developments

progress. Energy storage is also expected to increase significantly driven by the need for RA and firming solar generation.

Flexible generation, such as energy storage and fast-ramping thermal resources, are well suited to take advantage of the expected high power price volatility in CAISO. The financial advantage of flexible resources stems from their ability to quickly ramp up or down in response to volatile price signals. This characteristic is especially important in the real-time market where prices can quickly spike to hundreds of dollars for short durations (5 to 20 minutes).

The federal Inflation Reduction Act increases the development of NCPA's resource options for future procurement of solar, wind, and geothermal. In addition, NCPA will consider out-of-state SMR nuclear generation as potential resources.

The IARP analyzed numerous technologies as potential resources for future capacity needs. It evaluated the levelized cost of energy (LCOE) for both generating and storage resources and included the feasibility of commercially available and emerging technologies, decarbonized resources, and ESS.

#### Levelized Cost of Energy

The cost of all technologies was calculated as a levelized cost of generating power (\$/MWh) over the life of the resource, which enables resources to be compared based on these levelized costs. These calculations consider the project from an owner's perspective, and includes direct costs, charges, and incentives, as well as the expected rate of return on equity. Levelized costs were calculated from two perspectives: a PPA or NCPA member ownership.

The cost estimates for commercially available technologies were taken from actual cost data from existing installations and adjusted for inflation. Cost estimates for the emerging technologies were mostly taken from engineering estimates or pilot plant costs, which may not reflect the actual cost for commercial development.

The levelized costs are nominal values, not precise estimates.

### Commercially Available Technologies

The IARP evaluated several commercially available technologies as potential resources. Most of these technologies are currently in NCPA member portfolios. Technologies include:

**Biomass:** Feasible technologies include landfill gas and wastewater anaerobic digesters. Less feasible technologies include dairy anaerobic digesters, fluidized bed boilers (wood waste), and fluidized bed boilers (forest residue).

Geothermal: Feasible technologies include binary and dual flash.

**Small Hydroelectric:** Feasible technologies include in conduit and impoundment (less than 30 MW).

**Solar PV:** Feasible technologies include single axis tracking crystalline, fixed tilt crystalline, and thin film fixed tilt.

**Solar Thermal:** Less feasible technologies include parabolic trough.

**Wind:** Feasible technologies include class 5 wind turbines; less feasible technologies include offshore fixed bottom.

Commercially Available Technologies		Capacity	Capacity	РРА	NCPA	Difference
Resource	Technology	(MW)	Factor			
	Dairy Anaerobic Digester	0.25	75%	\$177	\$131	\$46
	Fluidized Bed Boiler (Wood Waste)	20.00	81%	\$176	\$150	\$26
Biomass	Fluidized Bed Boiler (Forest Residue)	20.00	81%	\$189	\$163	\$26
	Landfill Gas	36.00	75%	\$50	\$38	\$12
	Wastewater Anaerobic Digester	0.5.0	75%	\$79	\$57	\$22
	Binary	30.00	80%	\$152	\$143	\$9
Geothermai	Dual Flash	40.00	90%	\$104	\$98	\$7
0	In Conduit	3.7.0	66%	\$216	\$148	\$68
Small Hyuro	Impoundment	11.1.0	41%	\$233	\$156	\$77
	Single Axis Tracking Crystalline	100.00	26%	\$49	\$52	(\$3)
Solar PV	Fixed Tilt Crystalline	100.00	17%	\$61	\$65	(\$4)
	Thin Film Fixed Tilt	100.00	17%	\$57	\$61	(\$4)
Solar Thermal	Parabolic Trough	250.00	43%	\$157	\$177	(\$20)
M/L d	Class 5 Turbine	100.00	42%	\$54	\$43	\$12
wind	Offshore Fixed Bottom	200.00	36%	\$121	\$137	(\$16)

Table 16 presents the LCOE for these commercially available technologies.

Table 16. Commercially Available Technologies Levelized Cost of Energy

## **Emerging Technologies**

The IARP considered several emerging technologies, all of which are in the early stages of development. Only one, supplemental hydrogen fuel, is currently feasible. The remaining technologies are considered unfeasible resources to fulfill capacity needs in the foreseeable future.

**Hydrogen Fuel.** Hydrogen is a prime candidate as a replacement fuel for natural gas combustion generators. NCPA is planning a transition of natural gas units to hydrogen beginning with LEC's conversion to a 45 percent hydrogen blend in 2027. By 2032, NCPA expects to have LEC, Lodi STIG, Lodi CT1, and Alameda CT1 running on 100% hydrogen.

A hydrogen production and compressed storage facility is built adjacent to an existing combined cycle power plant and utilizes generation from renewable resources to produce green hydrogen. The facility includes an electrolyzer, fin fan cooling system, storage compressor and storage vessels.

Hydrogen is produced by electrolysis, which uses electricity to split water molecules into pure hydrogen and oxygen. The hydrogen can be used as a supplement fuel or complete replacement for natural gas in a combustion turbine.

**Biomass: Integrated Gasification Combined Cycle (IGCC).** This technology utilizes a pressurized fluidized bed gasifier to produce a syngas (methane and hydrogen) to combust in a combustion turbine and generator. The exhaust from the turbine also produces steam expanded in a steam turbine and generator.

**Solar PV: Concentrating Dual Axis Tracking.** Concentrating photovoltaic (CPV) uses lenses or reflective collectors to focus solar energy (typically greater than 100 suns) on a reduced area of solar cell material. CPV tracks the sun using a dual axis tracker to maximize the capacity factor.

**Solar Thermal: Stirling Dish.** The dish engine uses a mirrored dish that collects and concentrates the sun's heat onto a receiver, which absorbs the heat and transfers it to fluid within the Stirling engine and generator. This system tracks the sun using a dual axis tracker to maximize the capacity factor.

**Solar Thermal: Compact Linear Fresnel Reflector (CLFR).** CLFR is like parabolic trough systems where they concentrate the sun's energy through long rectangular, mirrors which are tilted toward the sun, focusing sunlight on a pipe that runs down the center of the mirrors. This heats the oil flowing through the pipe used to make steam, which is expanded through a steam turbine and generator. Steam is at a lower temperature than for the parabolic trough systems. This system is assumed to have 6 hours thermal energy storage and is air-cooled.

**Solar Thermal: Central Power Tower.** A power tower system uses a large field of mirrors to concentrate sunlight onto the top of a tower, where a receiver sits. The sunlight heats up a molten salt flowing through the receiver which creates steam to expand through a steam turbine and generator. This system is assumed to have a built-in thermal energy storage of 10 hours to increase the capacity factor.

**Wind: Offshore Floating.** Offshore floating wind plants are in water exceeding depths of 60 meters. Wind turbines are on floating platforms that are anchored to the ocean floor. Variations of the offshore floating platforms are in development. NREL estimates 95 percent of the area off the California coast is usable for offshore floating wind.

**Liquid Salt Combined Cycle Plants (LSCC).** This technology is patented by Pintail Power. LSCC includes the addition of liquid salt thermal energy storage into a conventional combined cycle facility. The liquid salt solution is heated by an electric heater via a renewable energy source and stored in a tank. This stored salt solution is used in a molten salt steam generator, acting as the evaporator for the steam cycle. This technology utilizes proven utility equipment for thermal energy storage and integrates them into a combined cycle plant. Table 17 presents the LCOE for some of these emerging technologies.

Emerging Technologies		Capacity	Capacity	РРА	NCPA	Difference
Resource	Technology	(MW)	Factor			
Biomass	Integrated Gasification CC	30	75%	\$150	\$129	\$20
Solar PV	Concentrating Dual Axis Tracking	15	36%	\$82	\$93	(\$11)
	Stirling Dish	15	24%	\$117	\$117	\$0
Solar Thermal	Compact Linear Fresnel Reflector	65	28%	\$134	\$151	(\$16)
	Central Power Tower	100	50%	\$148	\$169	(\$21)
Wind	Offshore Floating	200	49%	\$94	\$115	(\$22)

#### Table 17. Emerging Technologies Levelized Cost of Energy

As a means of comparison, Table 18 presents the LCOE for existing natural gas thermal generation.

Natural Gas Technologies		Capacity	Capacity	РРА	NCPA	Difference
Resource	Technology	(MW)	Factor			
Natural Cas	Peaker Plant	100	5%	\$644	\$395	\$250
Natural Gas	Combined Cycle	640	40%	\$96	\$83	\$14
Hydrogen Fuel Supplement	For Existing Combustion Turbine	300	45%	\$160	\$155	\$5

Table 18. Natural Gas Technologies Levelized Cost of Energy

**Energy Storage Technologies.** NCPA continues to evaluate existing and emerging energy storage technologies. Existing options include lithium-ion batteries, pumped storage hydroelectric, and flywheel storage. Lithium-ion batteries are expensive long-term storage solutions and might not be adequate to meet the future industry needs. Pumped storage hydroelectric is capital intensive, heavily regulated, and challenged by geographical siting problems. Flywheel storage is difficult to scale up to adequate sizes and is coupled with significant capital costs.

Emerging technologies include flow batteries, thermal salt storage, compressed air energy storage, and various other technologies. None of these technologies are mature enough to be beneficial to NCPA energy objectives.

## Hydrogen: A Decarbonized Source of Fuel

Hydrogen generation is expected to play an important role in the quest to decarbonize the electric grid. Green hydrogen—hydrogen fuel made from electrolysis powered by renewable generation—stores clean energy for dispatching when it is needed. Hydrogen generation increases grid reliability while avoiding carbon emissions. Variable generation such as wind, solar, and geothermal generate energy as available rather than as needed. These resources must rely on firming technologies such as energy storage to serve load when needed. Conventional energy technology will be able to provide limited firming by shifting some
generation to better serve load, while hydrogen generation would provide firm generation for much longer durations. Hydrogen is considered a clean fuel when produced via electrolysis from renewable resources (green hydrogen).

NCPA is in the planning phase of supplying the four gas turbine resources with hydrogen. Table 19 shows the resources under consideration for hydrogen conversion and the potential year for conversion.

Resource	Year	Hydrogen Conversion
Lodi Energy Center (LEC)	2027	45% hydrogen blend
Loui Lifergy Center (LLC)	2032	from 45% to 100% hydrogen
Alameda CT1	2030	100% hydrogen
Lodi STIG Unit	2031	100% hydrogen
Lodi CT1	2032	100% hydrogen

#### Table 19. Hydrogen Conversion for Natural Gas Generation in NCPA

NCPA's plans for hydrogen conversion starts with installing an electrolyzer with 60 MW of capacity at the LEC providing the capability of producing 24 tons of hydrogen per day. The cost of the electrolyzer is expected to be \$145 million with an additional \$80 million needed for the installation. The LEC will convert to a blend of hydrogen and natural gas in 2027.

The existing STIG unit is expected to be replaced with a unit capable of running up to 45% hydrogen blend with future of 100% assuming a 13% capacity factor. Initially, the STIG replacement will run on natural gas until the electrolyzer capacity is built out to provide hydrogen fuel for the STIG in addition to LEC, expected in 2031.

While the hydrogen capacity is developed for LEC and STIG, the Alameda CT1 is expected to run on 100% hydrogen in 2030 and Lodi CT1 on 100% hydrogen in 2032. Both plants are expected to run with an 11% capacity factor.

To finish the LEC transition to 100% hydrogen, the site will need an estimated 360 MW more electrolyzer capacity and cost an additional \$2 billion. LEC will operate at an expected 50% capacity factor. For the STIG unit to convert fully to hydrogen, the cost is expected to be \$150 million. Full conversion cost estimates to hydrogen for the CT1 units are \$175 million for Alameda and \$100 million for Lodi.

For perspective, these costs should be evaluated in reference to current trends and resource requirements. For example, replacing the annual dispatchable energy generation of the LEC would require installing 3,900 MW of solar panels. Enabling this additional solar generation to be dispatchable would require the addition of ESS. Based on current bids, easy solar only- projects cost approximately \$1.7 million per installed MW, requiring NCPA to purchase \$6.6 Billion in solar panels to replace LEC's energy capability. This amount does not include the cost of land, which would require 23,000 acres to install the required 3,900 MW of replacement solar panels.

The proposed hydrogen production and storage facilities would use solar energy resources to produce hydrogen via electrolysis, store the hydrogen, and later blend it with natural gas.

The Inflation Reduction Act (IRA) provides tax incentives for green hydrogen which will apply to the NCPA resources. Depending on the project costs, NCPA could elect to take the investment tax credit (ITC) to cover 30% of the investment cost, or the production tax credit (PTC) which applies to the solar generation used to produce hydrogen and the burning of hydrogen for electricity production. The current value of the PTC is \$26 per MWh which increases with inflation. Another option would be to take the Clean Hydrogen Production Tax Credit (CHPTC) which provides up to \$3 per kilogram of hydrogen production. Hydrogen production from solar generation qualifies for the PTC for solar over the first ten years of the solar plant's life. In addition to the IRA, the DOE provides funding for pilot projects for green hydrogen production and use in electricity generation.

## Energy Storage Technology Models

Energy Storage System's (ESS's) store energy that can later be discharged to meet demand. ESS's are measured in MWh and depends on the MW discharge and charging capacity; their storage capacity may degrade over time. FERC regulations opened capacity, energy, and ancillary services markets to energy storage systems.

CAISO has 4.5 GW of energy storage. Total load in CAISO is 52 GW. Today, ESS's are lithium-ion, suited for short-duration storage or less than eight hours of storage. Other emerging technologies for energy storage include Hydrogen, iron-air, liquid air, and vanadium-flow batteries. These emerging battery technologies are aimed at long-duration storage, up to 100 hours.

ESS's provide valuable flexibility to the grid because it can charge and discharge rapidly to maintain the load-resource balance. The flexibility of ESS provides financial benefits as it can quickly react to market prices, discharging when prices go high and charging when prices are low or negative.

# RESOURCE CONSIDERATIONS

NCPA is on a trajectory to meet California requirements for carbon free energy. In the modeling, renewable energy resources considered for future procurement were limited to carbon free resources. Natural gas units able to convert to hydrogen were included in the evaluation as energy generation and ESS. Resource evaluations considered the need for NCPA to meet future RA and energy requirements together with clean energy mandates. Collective action on the part of all NCPA members is key to procurement of these resources in a cost-effective manner, as any one individual resource may be more than an individual member's needs.

### **Baseload Resources**

The following general resources were considered for capacity expansion in the modeling.

**Dispatchable Resources.** Baseload resources in the analysis included geothermal, natural gas with CCs, nuclear SMR, biomass-landfill biogas, and hydrogen CT generation.

**Storage Resources.** NCPA has space available to install energy storage resources at the STIG and geothermal sites. Adding energy storage at an existing site with available transmission lowers the costs of the projects. Energy storage considered for these locations include Hydrogen Energy Storage.

**Geothermal ESS.** A 70 MW 4hour ESS with maximum instantaneous charging and discharging capacity was considered for a geothermal site. The model assumes the ESS can charge from the grid or from the geothermal output. The cost estimate is approximately \$99 million. (Note: For this IARP, ascend modeled the ESS as a stand-alone storage system. Since the passage of the Inflation Reduction Act, ESS now qualifies for the ITC (Investment Tax Credit) without needing to charge from a dedicated renewable resource. The model counts all geothermal output as RPS. ESS losses are not included in the analysis. The ESS can grid charge.) Wildfire and mitigation costs are not included in the assumptions.

**Pumped Hydroelectric Energy Storage (PHES).** Pumped-storage hydroelectric facilities provide 10 to 20 hours of storage by pumping water to a high reservoir to store energy, then releasing the water through a turbine into the lower reservoir to generate power.

**Peaking Resources.** The natural gas Alameda CT1 and CT2 units, and the Lodi CT unit are dispatched as peaking generators. All three are assumed to remain online for the entirety of the planning period. While virtual power plants—the aggregation of DERs combined with distributed batteries—have held relative success in replacing peakers at some utilities across the country, they were not considered in the IARP modeling due to their inefficiency because of the wide distribution of DERs across NCPA members.

## Variable Renewable Resources

Variable renewable resources like wind and solar provide renewable generation driven by weather conditions. Costs for wind and solar are lower than other competing resources on a per MWh basis. Since the energy from variable resources is non-dispatchable, they provide very little RA credit. However, adding batteries to wind and solar projects allows limited control over the generation and provides more RA credit.

**Wind.** Out-of-state wind from New Mexico and the Pacific Northwest have high capacity factors compared to in-state wind. Out of state wind, however, has an additional cost for transmission into California. NCPA pool members and SVP have a combined 500 MW of wind currently under contract. Resources considered included wind power from northern California, southern California, the Pacific northwest, New Mexico, Wyoming, and offshore.

**Solar PV Resources.** California has significant in-state solar development due to the sunny weather and available real estate. Solar generation is expected to continue the rapid pace of development in the future. Solar is the lowest cost form of energy in California. NCPA pool members and SVP have a combined 285 MW of solar PV currently under contract. Resources considered included solar PV from northern and southern California.

**Solar PV plus Storages Resources.** Solar paired with storage provides the ability to store midday generation and dispatch it in the evening hours when energy is in higher demand. The storage addition increases the capacity credit of the project and increases the revenue from energy sales. Solar curtailments during the spring and fall make the addition of storage valuable for serving load.

## Load Shifting Resources

Some resources have the ability to shift load to lower demand times.

**Energy Efficiency.** DSM measures, Tier 1 DR (10 instances annually), Tier 2 DR (20 instances annually), and other energy efficiency were considered in the modeling.

**Hydrogen Electrolyzers (LEC H<sub>2</sub> Electrolyzers).** Once the planned natural gas conversions to hydrogen are complete, NCPA will use solar and wind generation to power the electrolyzers to create hydrogen. The process of producing and using hydrogen essentially provides the ability to shift wind and solar power to times when it can serve load.

**Other Long Term Storage Systems.** Several emerging storage technologies might be available soon. Iron-air energy storage systems provide up to 100 hours (about 4 days) of duration. To date, no projects have been installed, but there are projects in development.

Compressed air energy storage (CAES) provides up to 20 hours of energy storage in underground caverns or tanks. Carbon capture and storage process was also considered.

# **Emergency Resources**

NCPA and its members share the strategic goal of being EPC-ready to support controlling wildfires and being ready for state emergencies. This preparedness includes first responders, emergency communications, and public safety. This capability was not modeled for this IARP as the emergency load profiles of NCPA and its members are not explicitly known until data can be gathered for targeting specific objectives.

Toward this end, NCPA evaluated the cost of installing a 10 MW capacity generator at a brownfield site in the Plumas-Sierra REC district. This site has access to an available generator step-up transformer capacity. The expected first cost of this brownfield development is \$2,600 per MW, which is approximately the same cost of the City of Palo Alto Electric Utility's modeling of DR capacity to meet a system emergency. The brownfield site is designed for wildfire support. Implementation would be about six months.

NCPA evaluate the cost of state emergency readiness—being able to respond being able to respond to a grid-wide level 3 system emergency that would be dispatched only to avoid rolling blackouts—at \$3,300 per MW, based on a shorter implementation time of one to two months.

NCPA and its members expect to consider this strategic EPC capability together with the addition of any new energy resources. For example, a proposed solar installation includes an optional provision for connecting a standby generator that would be used to support emergency loads.

## Renewable Portfolio Standard Resources

In California, wind, solar, small hydroelectric, geothermal, and biomass are the only resources currently available to meet RPS requirements. While other renewables hold varying levels of promise, most notable hydrokinetic, none are yet available for commercial production.

# Transmission and Distribution Constraints

NCPA is transmission constrained. Transmission and distribution lines are owned and operated by CAISO, PG&E, and WAPA. The IARP has not mapped nor evaluated all transmission and distribution contingencies, therefore identifying a strategy to respond to these dependencies is premature. NCPA is aware of these dependencies but has yet to address them in total. NCPA plans to model these contingencies and develop a long-term transmission plan to best address these issues.

# CAPACITY EXPANSION MODELING RESULTS

# New Resource Buildout Projections

Analyzing all potential resource options resulted in geothermal, wind (from Wyoming and the Pacific northwest), solar (from northern and southern California sources), storage (geothermal ESS, 4hour Liion ESS, and PHES), and hydrogen conversions being chosen for capacity expansion. **The model assumed resources are available starting in 2027. Based on costs, this model encourages NCPA to look at wind, but does not guarantee availability.** 

Figure 71 shows the new nameplate capacity that the PowerSIMM modeling projects add to meet forecast demand starting in 2025. Most of the early expansion consisted of solar, wind

and storage. Planned hydrogen conversions supply capacity to support the high renewables build out.



Figure 71. New Nameplate Annual Resource Buildout

Table 20: New Capacity Expansion Resources (page 7-1) lists the resource type, MW, and year for the projected capacity expansion.

Figure 72 illustrates the total nameplate MW from existing generation and new capacity expansion additions. Over the planning period, total generation nearly tripled.



Figure 72. Total New and Existing Nameplate Annual Resource Buildout

Figure 73 illustrates the total net qualifying capacity MW from existing generation and new capacity expansion additions. Over the planning period, the model shows most capacity growth from wind, storage, and hydrogen. This scale ranges from 0–2,500 MW while the scale on Figure 72 ranges from 0–6,000 MW.



Figure 73. Total New and Existing Net Qualifying Capacity Annual Resource Buildout

# Capacity Expansion Costs

Figure 74 shows how resource expansion costs are a bit of a roller coaster. Costs are relatively modest in the short term (about \$3 Billion annually), escalate sharply in the transition term (topping at about \$18 Billion), then drop again to approximately \$6 Billion and increase again from \$15 to \$23 Billion in the long term.



Figure 74. Annual Cost of New Resource Additions

# 7. Conclusion

# ACTION PLAN

The annual capacity position of NCPA (Figure 57, page 5-2) shows that NCPA must add resources by 2027 to maintain reliable operations. By the end of the planning period, there is approximately a 1,000 MW shortfall of NQC to meet forecasted peak demand plus the 17 percent planning margin. Table 20 shows the project build that can keep reliable operations while ensuring the NCPA members meet RPS and GHG emission targets. Conversion of natural gas units to hydrogen is an important aspect of this transition. Collective action on the part of all NCPA members is key to procurement of these resources in a cost-effective manner, as any one individual resource may be in excess of an individual member's needs.

Resource (MW)	2025	2027	2028	2029	2030	2031	2032	2033	2034	2035	2038	2042	2045
Geothermal	25	0	0	0	0	0	0	0	0	0	0	0	0
Solar-SoCal	0	100	0	0	100	0	0	0	0	0	0	0	0
Hydrogen Conversion	0	60	0	0	50	50	98	0	0	0	0	0	0
Wind-WY	0	0	100	250	150	0	0	0	0	0	0	0	250
Wind-PNW	0	0	150	250	250	250	250	100	0	0	0	0	0
Solar-NorCal	0	0	0	0	250	250	250	250	50	0	200	0	0
Wind-NorCal	0	250	0	0	0	0	0	0	0	0	0	0	0
4-Hour ESS	75	50	0	0	0	0	0	0	0	0	0	0	0
8-Hour ESS	0	100	0	25	75	0	0	0	0	25	0	50	50
Wind-SoCal	0	0	0	0	250	0	0	0	0	0	0	0	0
Annual Total	100	560	250	525	1,125	550	598	350	50	25	200	50	300
Cumulative Total	100	660	910	1,435	2,560	3,110	3,708	4,058	4,108	4,133	4,333	4,383	4,683

Table 20. New Capacity Expansion Resources

# LOAD GAPS FROM SHORT- TO LONG-TERM

In the short term, NCPA is expected to become short on capacity and energy in 2026. The projections include the added capacity and energy from the anticipated addition of a 100 MW geothermal plant coming online in 2025 through 2026. If more resources are not added before 2026, NCPA will rely on power purchases through CAISO to serve load. The capacity shortfall will be covered with capacity contracts if more resources are not added.

Ability expansion modeling on the NCPA portfolio selects near-term acquisition of resources to fill the capacity and energy gap. Among the options selected are an additional 25 MW of geothermal, 200 MW of ESS, and significant levels of wind and solar resources. The resource additions would increase NCPA member capacity and energy in the near term, closing the gaps that start in 2027.

Along with procuring resources to meet capacity and energy needs, NCPA will move initiate plans to convert natural gas generation to hydrogen. The transition to hydrogen will allow NCPA to retain firm, dispatchable clean energy. By 2035, NCPA members must serve 90 percent of load with clean energy, rising to 95 percent by 2040 and 100 percent by 2045 as required by SB 1020.

The process of converting to hydrogen includes procuring electrolyzers at Lodi and Alameda to convert LEC, Lodi CT1, Lodi STIG, and Alameda CT1. Table XX shows a high-level timeline for the hydrogen conversions. Estimates indicate the electrolyzer will be sized for a capacity of 60 MW and produce 24 tons of hydrogen daily. The amount of hydrogen will be sufficient to run LEC with a capacity factor of 50%. For full transition to hydrogen, NCPA will increase the electrolyzer capacity to 360 MW powered from solar generation.

Resource	Year	Hydrogen Conversion			
Lodi Energy Center (LEC)	2027	Install electrolyzer for hydrogen to produce a fuel blend of 45% green hydrogen and 55% natural gas.			
	2032	Convert from 45% hydrogen to 100% hydrogen.			
Alameda CT1	2030	Convert to 100% hydrogen.			
Lodi STIG Unit	2031	Convert to 100% hydrogen.			
Lodi CT1	2032	Convert to 100% hydrogen.			

#### Table 21. Natural Gas to Green Hydrogen Conversion Timeline for NCPA

In the transition to hydrogen, NCPA plans to procure adequate renewable energy to power the electrolyzer and generate green hydrogen. The model selected 2.5 GW of solar between 2029 and 2035. The model also added wind from New Mexico and the Pacific Northwest to provide some capacity value and attain the clean energy targets.

In the long term, the model selects storage to maintain the RA position and firm the large amounts of solar resources.

# 8. Appendices

The IARP contains several appendices:

- A. Glossary and Definitions (page A-1)
- B. NCPA and Member Resources (page B-1)
  - B1. NCPA and Member Resources by Type (page B-2)
  - B2. Member Generation Resources (page B-9)
  - B3. NCPA and Member Resource Allocation by Type (page B-21)
  - B4. Resource Net Qualifying Capacity Data for 2023 (page B-27)
- C. NCPA and Member Energy Forecasts (page C-1)
  - C1. NCPA and Member Monthly Energy Forecast Data (page C-2)
  - C2. NCPA and Member Yearly Energy Forecast Data (page C-18)
  - C3. Member Energy Forecast Graphs (page C-20)
- D. NCPA and Member Peak Demand Forecasts (page D-1)
  - D1. NCPA and Member Monthly Peak Demand Forecast Data (page D-2)
  - D2. NCPA and Member Yearly Peak Demand Forecast Data (page D-18)
  - D3. Member Peak Demand Forecast Graphs (page D-20)
  - D4. NCPA and Member Seasonal Maximum Hourly Peak Demand Forecast Data (page D-27)
- E. Additional IARP Forecasts (page E-1)
  - E1. Hydroelectric Forecasts (page E-1)
  - E2. California Energy Forecasts (page E-3)
  - E3. Electric Vehicle and Charging Demand Forecast (page E-5)
  - E4. The Geysers Geothermal Forecasts (page E-7)

## 8. Appendices

# A. Glossary and Definitions

#### AAEE

Additional Achievable Energy Efficiency: Defined by the CEC as incremental savings from the future market potential identified in utility potential studies not included in the baseline demand forecast, but reasonably expected to occur, including future updates of building codes, appliance regulations, and new or expanded investor-owned utility or publicly owned utility efficiency programs.

#### AAFS

Additional Achievable Fuel Substitution

#### AATE

Additional Achievable Transportation Electrification

#### AB

Assembly Bill: The designation given to any bill passed by the entire California legislative assembly

AGC Automatic Generator Control

#### APPA

American Public Power Association: National service organization representing the nation's more than 2,000 publicly owned electric utilities.

#### ARS

Automated Resource Selection

#### ATB

Annual Technology (Electricity) Baseline

#### BA

Balancing Authority

#### BANC

Balancing Authority of Northern California: A regional balancing authority. Four NCPA members belong to BANC.

#### BES

Bulk Electric System

**BESS** Battery Energy Storage System

#### BUILD

Buildings Initiative for Low-Emissions Development

#### CAISO

California Independent System Operator: A nonprofit independent system operator that oversees the operation of bulk electric power system, transmission lines, and electricity market generated and transmitted by its participants. CAISO is the largest balancing authority in California. Eight NCPA members belong to CAISO.

#### CARB

California Air Resources Board: Responsible for promoting and protecting public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on California's economy.

#### CC

Combined Cycle

#### CCA

Community Choice Aggregator

#### CCS

Carbon Capture and Sequestration: A process that captures, separates, and treats  $CO_2$  emissions from a power plant, then transports it for long-term storage so that it doesn't enter the atmosphere.

#### CEC

California Energy Commission:

California's primary energy policy and energy planning agency. Responsible for ensuring publicly owned utilities' compliance with the state's Renewables Portfolio Standard and Title 20 data reporting requirements.

#### CEDU

California Energy Demand Update

**CFPP** Carbon Free Power Project

**CHPTC** Clean Hydrogen Production Tax Credit

CLFR Compact Linear Fresnel Reflector

#### **CMUA**

California Municipal Utilities Association: An association incorporated in 1933 to represent the interests of California's publicly owned electric utilities before the California Legislature and other regulatory bodies.

#### **CO**<sub>2</sub>

Carbon Dioxide:

A colorless, odorless gas found in the atmosphere that is associated with global warming. It is released into the atmosphere through the burning of fossil fuels such as coal, oil, and natural gas.

#### COD

Commercial Online Date

#### **Coincidence Factor**

The peak of a system divided by the sum of peak demand of its individual components. It tells how likely the individual components are peaking at the same time. The highest possible coincidence factor is 1.00, when all the individual components are peaking at the same time.

#### СР

Compliance Period

#### CPUC

California Public Utilities Commission: Regulates California's investor-owned electric utilities, telecommunications, natural gas, water, and passenger transportation companies, in addition to household goods movers and the safety of rail transit.

#### CRAT

Capacity Resource Accounting Table

# СТ

Combustion Turbine

## **CT1**

Combustion Turbine Project 1

#### CVP

Central Valley Project

#### DCFC

Direct Current Fast Charger: Fastest available EV chargers, designed to fill a battery to 80 percent in 20–40 minutes, and 100 percent in 60–90 minutes.

#### Demand

The rate at which electricity is used at any one given time (or averaged over any designated interval of time). Demand differs from energy use, which reflects the total amount of electricity consumed over a period of time. Demand is measured in kilowatts (kW) or megawatts (MW). Load is considered synonymous with demand. (See also Load on page A-5.)

#### DEED

Demonstration of Energy & Efficiency Development

#### DER

Distributed Energy Resource:

Any resource (such as solar and wind power, energy efficiency, demand response, fuel cells, energy storage, electric vehicles, and building electrification) on the distribution system that produces electricity.

#### DOE

Department of Energy

#### DR

Demand Response:

An electricity tariff or program established to motivate changes in electric use by end-use customers, designed to induce lower electricity use typically at times of high market prices or when grid reliability is jeopardized.

#### DSM

Demand-Side Management:

The planning, implementation, and monitoring of utility mechanisms and technologies (such as efficiency measures and load-management practices) designed to encourage consumers to modify patterns of electricity usage, including the timing and level of electricity demand.

#### EBCE

East Bay Community Energy

#### EBT

Energy Balance Table

#### EDAM

Extended Day Ahead Market

#### ELCC

Effective Load Carrying Capacity: The ability to effectively increase the generating capacity available to a utility without increasing the utility's loss of load risk, quantified as the amount of new load that can be added to a system after capacity is added by a generator without increasing the loss of load probability or expectation.

#### Energy

The amount of electricity a generation resource produces, or an end user consumes, in any given period of time. Energy is computed as capacity or demand (kWs, MWs, or GWs) multiplied by time (hours). A one MW power plant running at full output for one hour produces one megawatt-hour (1 MWh) of electrical energy.

#### EPC

Engineering, Procurement, and Construction

#### EPRI

Electric Power Research Institute: A nonprofit research and development organization that conducts research, development and demonstration relating to the generation, delivery, and use of electricity.

**ERCOT** Electric Reliability Council of Texas

**ERO** Electric Reliability Organization

ESP Electric Service Provider

#### ESS

Energy Storage System – Energy storage indifferent to technology.

#### EV

Electric Vehicle: A vehicle that uses one or more electric motors for propulsion.

#### **EVSE**

Electric Vehicle Supply (Service) Equipment: Equipment that provides electric power to the vehicle and uses that to recharge the vehicle's batteries.

#### FEPCG

Florida Electric Power Coordinating Group

#### FERC

Federal Energy Regulatory Commission: An independent regulatory agency within the Department of Energy that regulates the transmission and sale of natural gas, regulates the transmission of oil, regulates the transmission and wholesale sale of electricity, as well as many other energy-related commercial activities.

#### GEAT

GHG Emissions Accounting Table

#### GHG

Greenhouse Gas: A gas that contributes to the greenhouse effect by absorbing infrared radiation, including carbon dioxide, methane, and fluorocarbons.

**GO** Generation Owner

**GOP** Generation Operator

**GRC** General Rate Case

**GS** Generation Services

**GW** Gigawatt

**GWh** Gigawatt-hour

#### HCI

Hometown Connections Incorporated

#### IEPR

Integrated Energy Policy Report: A report adopted by the California Energy Commission and transmitted to the Governor and Legislature every two years. It includes trends and issues concerning electricity and natural gas, transportation, energy efficiency, renewables, and public interest energy research.

#### IGCC

Integrated Gasification Combined Cycle

#### ΙΟυ

Investor-Owned Utility

#### IRA

Inflation Reduction Act

#### IRP

Integrated Resource Plan:

A long-term comprehensive plan that balances the mix of demand and supply resources over a long-term planning horizon to meet specified policy goals.

### ISO

Independent System Operator

ISO-NE ISO New England

ITC Investment Tax Credit

#### kW

Kilowatt

#### kWh

Kilowatt-hour

#### L1

Level 1: A private, residential EV battery charger, taking approximately 24 hours to fully charge an empty battery.

# L2

Level 2: A public EV battery charger designed to fully charge an empty battery in eight hours or less.

## LCOE

Levelized Cost of Energy: The price per kilowatt-hour for an energy project to break even; it does not include risk or return on investment.

### LEC

Lodi Energy Center

#### Load

The moment-to-moment measurement of power that an end-use device or an end-use customer consumes. The total of this consumption plus planning margins and operating reserves is the entire system load. Load is often used synonymously with demand. (See also Demand on page A-3.) Load consists of:

**Baseload:** The constant generation of electric power load to meet demand.

**Connected Load:** The sum of the capacities or ratings of the electric power consuming devices connected to a supplying system, or any part of the system under consideration.

#### LFG

Landfill Gas

LSCC Liquid Salt Combined Cycle

## LSE

Load-Serving Entity: An energy-related company that serves end users and has been granted authority by California to sell electric energy to end users.

#### MIC

Maximum Import Capability

#### MIRP

Member Integrated Resource Plan: The IRPs of NCPA members.

#### MISO

Midcontinent ISO

#### ММТ

Million Metric Tons

#### MW

Megawatt

#### MWh

Megawatt-hour

#### NERC

North American Electric Reliability Corporation: A not-for-profit international regulatory authority that assures the effective and efficient reduction of risks to the reliability and security of the grid.

#### NQC

Net Qualified Capacity for Renewable Resources

#### NREL

National Renewable Energy Laboratory: The laboratory within the Department of Energy dedicated to researching, developing, commercializing, and using renewable energy and energy efficiency technologies. NREL creates a wealth of well researched studies that utilities across the country rely on for planning to integrate renewable generation.

#### **NWPPA**

Northwest Public Power Association

## NYISO

New York ISO

#### отс

Once-Through Cooling: A system that uses water from nearby sources or air to cool the steam existing a turbine.

#### OTEC

Ocean Thermal Energy Conversion

#### PCC

Portfolio Content Category: Categories of RECs based on the bundling of renewable attributes with power deliveries.

**PCC-0:** A renewable resource that meets the criteria of PCC-1 but was signed or went online before June 1, 2010.

**PCC-1:** A renewable resource located within the state of California or, a renewable resource that is directly delivered to California without energy substitution from another resource.

**PCC-2:** A renewable resource that is out-ofstate and delivering to California, where the RECs are paired with a substitute energy resource imported into the state.

**PCC-3:** A tradable or unbundled REC from a resource, delivered without the energy component.

#### PCL

Power Content Label: Regulatory reporting requirements to the CEC regarding percentages of energy sources sold by resource type.

#### PG&E

Pacific Gas and Electric

#### PHES

Pumped Hydroelectric Energy Storage

#### PHEV

Plug-In Hybrid Electric Vehicle

#### РЈМ

Pennsylvania-New Jersey-Maryland Interconnection

#### PM

Power Management

#### Pmax

Maximum power output of a generation unit

**Pmin** Minimum operating power of a generation unit

**POU** Publicly Owned Utility

#### PPA

Power Purchase Agreement: A contract for an electric utility to purchase energy and or capacity from a commercial source at a predetermined price or predetermined pricing formulas.

#### PRM

Planning Reserve Margin

#### PSD

Power Source Disclosure: Regulatory reporting requirements to the CEC regarding products and energy sources.

PTC Production Tax Credit

#### PV

Photovoltaic: The technology that converts light into electricity using semiconducting materials that exhibit the photovoltaic effect by absorbing photons and then emitting electrons.

#### RA

Resource Adequacy: The CAISO requirements that ensures sufficient capacity exists for grid-wide reliability, including system, local, and flexible capacity requirements.

#### REC

Renewable Energy Credit:

Tradable commodities that represent proof that 1 MWh of electricity was generated from an eligible renewable source: biomass, solar thermal, solar photovoltaic, wind, geothermal, fuel cells using renewable fuels, hydroelectric under 30 MW, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current.

#### RFP

Requests for Proposal

RMR Reliability Must-Run

#### RPS

Renewable Portfolio Standard: The program that, by law, requires all California IOUs, POUs, ESPs, and CCAs to increase the production and procurement of energy from renewable energy resources.

**RPT** RPS Procurement Table

#### RTO

Regional Transmission Organization

## SB

Senate Bill

## SCP

Sonoma Clean Power

#### **SCPPA**

Southern California Public Power Authority: A joint powers agency comprised of eleven publicly owned utilities and one irrigation district located in Southern California.

SEGEP

Southeast Geysers Effluent Pipeline

**SIP** State Implementation Plan

**SJCE** San José Clean Energy

SMR Small Modular Reactor

**SOCO** Southern Company

SPP Southwest Power Pool

**ST** Steam Turbine

**STIG** Steam Turbine Injected Generator

**SUV** Sport Utility Vehicle

TAC Transmission Access Charges

TANC Transmission Agency of Northern California

**TECH** Technology and Equipment for Clean Heating

**TVA** Tennessee Valley Authority

#### VER

Variable Energy Resource

#### VOM

Variable Operation & Maintenance: A function of the hours of operation of a power plant, and include yearly maintenance and overhaul, repairs, consumables, water supply, and environmental costs.

WAPA Western Area Power Administration

WECC Western Electricity Coordinating Council

WEIM Western Energy Imbalance Market

WEIS Western Energy Imbalance Service

WPP Western Power Pool

WRAP Western Resource Adequacy Program

#### ZEV

Zero-Emission Vehicle: A vehicle that emits no exhaust gas from its source of power, such as plug-in electric vehicles and hydrogen electric vehicles.

# **B.** NCPA and Member Resources

Appendix B comprises four sets of information about NCPA and member resources:

- B1. NCPA and Member Resources by Type (page B-2)
- B2. Member Generation Resources (page B-9)
- B3. NCPA and Member Resource Allocation by Type (page B-21)
- B4. Resource Net Qualifying Capacity Data for 2023 (page B-27)

# B1. NCPA AND MEMBER RESOURCES BY TYPE

Resources for NCPA and members are broken out into separate tables by generation type: thermal (natural gas), landfill biogas, geothermal, hydroelectric, wind, and solar. The 'Pool + SVP' columns do not include BART.

## Thermal Natural Gas Non-Renewable Resources

Table 22 lists the thermal, natural gas fired generation units for both NCPA and the study members. None of the thermal resources are RPS eligible. The Lodi Energy Center has 56.27 percent of its RA allocated to non-NCPA resources. The Cooperatively-Owned Back-Up Generator serves primarily as a RA resource. See Table 41 (page B-21) for the member allocation of these thermal resources; see also Table 48 (page B-27) for the 2023 NQC of these thermal units.

Resource	Resource ID	Nameplate MW	Pool + SVP Capacity	Pool + SVP Capacity %	NQC MW	RPS
Alameda CT Unit 1	ALMEGT_1_UNIT 1	25.00	25.00	100%	23.45	n/a
Alameda CT Unit 2	ALMEGT_1_UNIT 2	25.00	25.00	100%	23.45	n/a
Cooperatively-Owned Back-Up Generator	PALALT_7_COBUG	4.50	4.50	100%	4.5	n/a
Donald Von Raesfeld Project	DUANE_1_PL1X3	147.80	147.80	100%	147.80	n/a
Gianera Peaker GT Unit 1	CSCGNR_1_UNIT 1	24.75	24.75	100%	24.00	n/a
Gianera Peaker GT Unit 2	CSCGNR_1_UNIT 2	24.75	24.75	100%	24.00	n/a
High Sierra Cogeneration Aggregate	PLMSSR_6_HISIER	6.00	6.00	100%	6.00	n/a
Lodi Energy Center CC	LODIEC_2_PL1X2	302.58	132.33	44%	132.35	n/a
Lodi CT Unit	LODI25_2_UNIT 1	25.00	25.00	100%	23.80	n/a
Lodi STIG CT Unit	STIGCT_2_LODI	49.90	31.69	64%	31.69	n/a
Santa Clara Cogeneration #1	CSCCOG_1_UNIT 1	3.50	3.50	100%	3.00	n/a
Totals	-	638.78	450.32	70.50%	444.04	-

 Table 22.
 NCPA and Member Thermal Non-Renewable Generation Resources

# Landfill Biogas Resources

Table 23 lists the landfill biogas generation units for the study members. All landfill biogas generation is RPS eligible. See Table 42 (page B-22) for the member allocation of these biogas resources; see also Table 49 (page B-28) for the 2023 NQC of these landfill biogas units.

Resource	Resource ID	Nameplate MW	Pool + SVP Capacity	Pool + SVP Capacity %	NQC MW	RPS
Ameresco Forward Landfill	WEBER_6_FORWRD	4.20	4.20	100%	4.20	PCC-1
Ameresco San Joaquin Landfill	CORRAL_6_SJOAQN	4.30	4.30	100%	4.22	PCC-0
Ameresco Vasco Landfill	CAYTNO_2_VASCO	4.30	4.30	100%	4.30	PCC-1
G2 Landfill	WHEATL_6_LNDFIL	3.56	1.60	45%	1.60	PCC-0
Johnson Canyon Landfill	GONZLS_6_UNIT	1.42	1.42	100%	1.42	PCC-0
Keller Canyon Landfill	KIRKER_7_KELCYN	3.56	3.56	100%	3.56	PCC-0
Neal Road Landfill	ESQUON_6_LNDFIL	2.10	2.10	100%	0.00	PCC-0
Ox Mountain Landfill	OXMTN_6_LNDFIL	10.62	10.62	100%	10.62	PCC-0
Santa Cruz Landfill	GRNVLY_7_SCLAND	3.04	3.04	100%	3.04	PCC-0
Totals	—	37.10	35.14	97.50%	32.96	_

 Table 23.
 NCPA Member Landfill Biogas Generation Resources

# Geothermal Resources

Table 24 lists the geothermal generation units for both NCPA and the study members. All geothermal resources are RPS eligible. The Calpine geothermal projects have two phases: the first phase consists of a 50 MW PPA that comes online in 2025; the second phase adds 50 MW to the PPA and comes online in 2027. See Table 43 (page B-23) for the member allocation of these geothermal resources; see also Table 51 (page B-29) for the 2023 NQC of these geothermal units.

Resource	Resource ID	Nameplate MW	Pool + SVP Capacity	Pool + SVP Capacity %	NQC MW	RPS
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	38.85	33.33	86%	31.00	PCC-0
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	39.94	34.26	86%	28.00	PCC-0
The Geysers Plant 2 Unit 3	NCPA_7_GP2UN3	42.42	0.00	0%	0.00	PCC-0
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	52.73	45.24	86%	43.00	PCC-0
Calpine Geothermal Phase I*	Portfolio	50.00	50.00	100%	50.00	PCC-1
Calpine Geothermal Phase II§	Portfolio	50.00	50.00	100%	50.00	PCC-1
Totals	-	273.94	212.84	77.69%	202.00	_

\* Phase I begins with a PPA for 50 MW with a COD of 2025.

§ Phase II adds 50 MW of PPA capacity with a COD of 2027.

 Table 24.
 NCPA and Member Geothermal Generation Resources

# Hydroelectric Resources

Table 25 lists the hydroelectric generation units for both NCPA and the study members. Only small run-of-river hydroelectric resources are RPS eligible. Combie South Hydro is not a capacity or energy resource; it is only an RPS eligible resource. The large hydroelectric resources—Collierville Units 1 & 2 Aggregate, Donnells, Forbestown, and Woodleaf—fulfill the zero-carbon requirement.

See Table 45 (page B-25) for the member allocation of these hydroelectric resources; see also Table 53 (page B-31) for the 2023 NQC of these hydroelectric units.

Resource	Resource ID	Nameplate MW	Pool + SVP Capacity	Pool + SVP Capacity %	NQC MW	RPS		
NCPA Hydroelectric Resources								
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	246.86	217.24	88%	217.25	n/a		
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	6.00	5.28	88%	5.28	PCC-0		
NCPA Hydroelectric Resources Totals	-	252.86	222.52	88.00%	222.53	-		
Tri-Dam Hydroelectric Project								
Beardsley Hydro	BEARDS_7_UNIT 1	11.50	11.50	100%	9.18	PCC-1		
Donnells Hydro	DONNLS_7_UNIT	72.00	72.00	100%	72.00	n/a		
Sandbar Hydro	SNDBAR_7_UNIT 1	16.00	16.00	100%	7.40	PCC-1		
Tullock Hydro	TULLCK_7_UNITS	25.90	25.90	100%	18.34	PCC-1		
Tri-Dam Hydroelectric Project Totals	-	125.40	125.40	100.00%	106.92	-		
South Feather Hydroelectric Project								
Forbestown Hydro	FORBST_7_UNIT 1	37.50	30.10	80%	30.10	n/a		
Kelly Ridge Hydro	KELYRG_6_UNIT	11.00	8.84	80%	8.84	PCC-1		
Sly Creek Hydro	SLYCRK_1_UNIT 1	13.00	10.43	80%	10.43	PCC-1		
Woodleaf Hydro	WDLEAF_7_UNIT 1	60.00	48.16	80%	48.16	PCC-1		
South Feather Hydro Project Totals	-	121.50	97.53	80.25%	97.53	-		

B1. NCPA and Member Resources by Type

Resource	Resource ID	Nameplate MW	Pool + SVP Capacity	Pool + SVP Capacity %	NQC MW	RPS			
Other Hydroelectric Resources	Other Hydroelectric Resources								
Black Butte Hydro	BLCKBT_2_STONEY	6.20	6.20	100%	2.02	PCC-0			
Camp Far West Hydro	CAMPFW_7_FARWST	6.80	6.80	100%	3.60	PCC-1			
Combie South Hydro	HIGGNS_1_COMBIE	1.50	0.00	0%	0.00	PCC-1			
Friant Hydro I	FRIANT_6_UNITS	25.00	25.00	100%	22.30	PCC-1			
Grizzly Hydro*	GRIZLY_1_UNIT 1	17.60	17.60	100%	17.60	PCC-0			
Quinten Luallen Hydro	WOODWR_1_HYDRO	7.30	7.30	100%	0.00	PCC-1			
Rio Bravo Hydro	RIOBRV_6_UNIT 1	14.00	14.00	100%	8.52	PCC-1			
Stony Gorge Hydro Aggregate	ELKCRK_6_STONYG	4.90	4.90	100%	2.20	PCC-0			
Ukiah Lake Mendocino Hydro	UKIAH_7_LAKEMN	3.50	3.50	100%	1.70	PCC-0			
Other Hydroelectric Resources Total	_	86.80	85.30	98.27%	57.94	_			
Totals	_	586.56	530.75	90.48%	484.92	_			

\* Grizzly is offline due to PG&E transmission problem; it is scheduled to come back online in June 2024

Table 25. NCPA and Member Hydroelectric Generation	Resources
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## WAPA Hydroelectric Resources

Table 26 lists the hydroelectric generation provided by WAPA to the members. None of the WAPA hydroelectric resources are RPS eligible, although they fulfill the zero-carbon requirement. See Table 44 (page B-23) for the member allocation of these WAPA hydroelectric resources; see also Table 50 (page B-28) for the 2023 NQC of these WAPA hydroelectric resources.

Resource	Resource ID	Nameplate MW	Pool + SVP Capacity	Pool + SVP Capacity %	NQC MW	RPS
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	269.00	269.00	100.00%	253.92	PCC-0
WAPA SVP	NCPA_TRCYPGAE_I_F_MHBR02	136.00	136.00	100.00%	129.12	PCC-0
Totals	-	405.00	405.00	100.00%	383.04	_

Table 26. NCPA Member WAPA Hydroelectric Generation Resources

# Solar Resources

Table 27 lists the solar PV generation units for the study members. All solar resources are RPS eligible. See Table 47 (page B-26) for the member allocation of these solar resources; see also Table 54 (page B-31) for the 2023 NQC of these solar units.

Resource	Resource ID	Nameplate MW	Pool + SVP Capacity	Pool + SVP Capacity %	NQC MW	RPS
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B	17.00	17.00	100%	14.75	PCC-1
Aquamarine Westside Solar	AQUAWS_2_AQWSR1	75.00	22.50	30%	10.80	PCC-1
Astoria Solar	ASTORA_2_SOLAR2	10.00	10.00	100%	1.40	PCC-1
Central 40 Solar	CENT40_1_C40SR1	40.00	40.00	100%	15.60	PCC-1
EE Kettleman Solar	EEKTMN_6_SOLAR1	20.00	20.00	100%	0.00	PCC-1
Elevation Solar C (Big Sky)	BIGSKY_2_SOLAR2	40.00	40.00	100%	34.90	PCC-1
Frontier Solar (Crow Creek)	CRWCKS_1_SOLAR1	20.00	20.00	100%	0.00	PCC-1
Gridley Main One Solar	not applicable	0.70	0.70	100%	0.00	PCC-1
Gridley Main Two Solar	GRIDLY_6_SOLAR	1.29	1.29	100%	0.00	PCC-1
Hayworth Solar	LAMONT_1_SOLAR4	26.66	26.66	100%	18.93	PCC-1
Rosamond Solar (Palo Alto)	RTEDDY_2_SPASR4	26.00	26.00	100%	7.80	PCC-1
Rosamond One Solar (SVP)	RSMSLR_6_SOLAR1	20.00	20.00	100%	2.88	PCC-1
Slate_1 Solar	SLATE_2_SLASR1	41.19	0.00	0%	35.35	PCC-1
Western Antelope Blue Sky Ranch B Solar	BIGSKY_2_SOLAR4	20.00	20.00	100%	17.52	PCC-1
Totals	-	357.84	264.15	68.98%	159.93	_

Table 27. NCPA Member Solar Generation Resources

# Wind Resources

Table 28 lists the wind generation units for the study members. All wind resources are RPS eligible. See Table 46 (page B-25) for the member allocation of these wind resources; see also Table 52 (page B-29) for the 2023 NQC of these wind units.

Resource	Resource ID	Nameplate MW	Pool + SVP Capacity	Pool + SVP Capacity %	NQC MW	RPS
Big Horn 1 Wind	NCPA_TRCYCOTP_I_F_CO10	105.00	105.00	100%	36.90	PCC-0
Big Horn 2 Wind	NCPA_TRCYCOTP_I_F_CO11 NCPA_TRCYCOTP_I_F_CO12	17.50	17.50	100%	5.30	PCC-0
Cimarrón Wind*	tbd	300.00	300.00	100%	0.00	PCC-1
High Winds	BRDSLD_2_HIWIND	30.00	30.00	100%	6.90	PCC-0
Manzana Wind	MANZNA_2_WIND	50.00	50.00	100%	7.20	PCC-1
Totals	-	502.50	502.50	100.00%	56.30	-

\* Cimarrón Wind has a COD of 2025.

 Table 28.
 NCPA Member Wind Generation Resources

# **B2. MEMBER GENERATION RESOURCES**

# City of Alameda Generation Resources

Table 29 details the generation resources allocated to the City of Alameda Municipal Power.

Resource	Resource ID	ALA MW	ALA NQC	ALA MWh
Natural Gas				
Alameda CT Unit 1	ALMEGT_1_UNIT 1	5.46	5.12	2,552
Alameda CT Unit 2	ALMEGT_1_UNIT 2	5.46	5.12	2,551
Lodi CT Unit	LODI25_2_UNIT 1	5.46	5.19	1,154
Lodi STIG CT Unit	STIGCT_2_LODI	9.48	9.48	1,496
Natural Gas Totals	_	25.86	24.91	7,753
Landfill Biogas				
Keller Canyon Landfill	KIRKER_7_KELCYN	1.78	1.78	15,593
Neal Road Landfill	ESQUON_6_LNDFIL	2.10	0.00	18,396
Ox Mountain Landfill	OXMTN_6_LNDFIL	5.31	5.31	46,516
Santa Cruz Landfill	GRNVLY_7_SCLAND	1.52	1.52	13,315
Landfill Biogas Totals	_	10.71	8.61	93,820
Geothermal				
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	6.56	6.10	41,880
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	6.74	5.51	43,055
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	8.90	8.46	56,844
Calpine Geothermal Phase I	Portfolio	2.50	2.50	20,934
Calpine Geothermal Phase II	Portfolio	2.50	2.50	20,632
Geothermal Totals	_	27.20	25.07	183,345
Hydroelectric				
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	24.69	24.69	52,235
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	0.60	0.60	2,763
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	17.18	16.22	29,174
Hydroelectric Totals	-	42.47	41.51	84,172
Wind				
High Winds	BRDSLD_2_HIWIND	10.00	2.30	23,736
Wind Totals	-	10.00	2.30	23,736
Totals	-	116.24	102.40	392,826

 Table 29.
 City of Alameda Generation Resources

# City of Biggs Generation Resources

Resource	Resource ID	BIG MW	BIG NQC	BIG MWh	
Natural Gas					
Alameda CT Unit 1	ALMEGT_1_UNIT 1	0.05	0.05	24	
Alameda CT Unit 2	ALMEGT_1_UNIT 2	0.05	0.05	23	
Lodi Energy Center CC	LODIEC_2_PL1X2	0.82	0.82	5,532	
Lodi CT Unit	LODI25_2_UNIT 1	0.05	0.05	10	
Natural Gas Totals	-	0.97	0.97	5,589	
Geothermal					
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	0.09	0.08	563	
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	0.09	0.07	579	
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	0.12	0.12	764	
Calpine Geothermal Phase I	Portfolio	0.20	0.20	1,675	
Calpine Geothermal Phase II	Portfolio	0.20	0.20	1,650	
Geothermal Totals	-	0.70	0.67	5,231	
Hydroelectric					
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	4.20	3.97	7,136	
Hydroelectric Totals	-	4.20	3.97	7,136	
Solar					
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B	0.25	0.22	653	
Solar Totals	-	0.25	0.22	653	
Totals	-	6.12	5.83	18,609	

Table 30 details the generation resources allocated to the City of Biggs Electric Utility.

 Table 30.
 City of Biggs Generation Resources

# City of Gridley Generation Resources

Resource	Resource ID	GRI MW	GRI NQC	GRI MWh	
Natural Gas					
Alameda CT Unit 1	ALMEGT_1_UNIT 1	0.09	0.09	41	
Alameda CT Unit 2	ALMEGT_1_UNIT 2	0.09	0.09	41	
Lodi Energy Center CC	LODIEC_2_PL1X2	5.93	5.93	40,543	
Lodi CT Unit	LODI25_2_UNIT 1	0.09	0.09	19	
Natural Gas Totals	_	6.20	6.20	40,644	
Geothermal					
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	0.13	0.12	833	
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	0.14	0.10	857	
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	0.18	0.16	1,131	
Calpine Geothermal Phase I	Portfolio	0.30	0.30	2,512	
Calpine Geothermal Phase II	Portfolio	0.30	0.30	2,476	
Geothermal Totals	_	1.05	0.98	7,809	
Hydroelectric					
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	9.42	8.89	15,990	
Hydroelectric Totals	-	9.42	8.89	15,990	
Solar					
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B	0.75	0.65	1,958	
Gridley Main One Solar	not applicable	0.70	0.00	1,887	
Gridley Main Two Solar	GRIDLY_6_SOLAR	1.29	0.00	3,774	
Solar Totals	-	2.74	0.65	7,619	
Totals	-	19.41	16.72	72,062	

Table 31 details the generation resources allocated to the City of Gridley Electric Department.

Table 31. City of Gridley Generation Resources

# City of Healdsburg Generation Resources

Table 32 details the generation resources allocated to the City of Healdsburg Electric Department. The City of Healdsburg's resource portfolio also includes 3.0 MW of floating solar PV. This PCC-1 RPS resource has a 0.00 NQC and is scheduled to retire in December 2046.

Resource	Resource ID	HEA MW	HEA NQC	HEA MWh
Natural Gas				
Alameda CT Unit 1	ALMEGT_1_UNIT 1	1.46	1.37	682
Alameda CT Unit 2	ALMEGT_1_UNIT 2	1.46	1.37	682
Lodi Energy Center CC	LODIEC_2_PL1X2	4.96	4.96	33,917
Lodi CT Unit	LODI25_2_UNIT 1	1.46	1.39	309
Natural Gas Totals		9.34	9.09	35,590
Geothermal				
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	1.43	1.33	9,114
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	1.47	1.20	9,369
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	1.94	1.84	12,370
Geothermal Totals		4.84	4.37	30,853
Hydroelectric				
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	4.10	4.10	8,761
Forbestown Hydro	FORBST_7_UNIT 1	0.62	0.62	3,528
Kelly Ridge Hydro	KELYRG_6_UNIT	0.18	0.18	1,220
Sly Creek Hydro	SLYCRK_1_UNIT 1	0.21	0.21	284
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	0.10	0.10	459
Woodleaf Hydro	WDLEAF_7_UNIT 1	0.99	0.99	6,297
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	3.58	3.38	6,072
Hydroelectric Totals		9.78	9.58	26,621
Solar				
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B	2.00	1.73	5,221
Solar Totals		2.00	1.73	5,221
Totals	-	25.96	24.77	98,285

Table 32. City of Healdsburg Generation Resources

# City of Lodi Generation Resources

Resource	Resource ID	LOD MW	LOD NQC	LOD MWh	
Natural Gas					
Alameda CT Unit 1	ALMEGT_1_UNIT 1	3.35	3.14	1,567	
Alameda CT Unit 2	ALMEGT_1_UNIT 2	3.35	3.14	1,566	
Lodi Energy Center CC	LODIEC_2_PL1X2	28.75	28.75	196,111	
Lodi CT Unit	LODI25_2_UNIT 1	3.35	3.19	708	
Lodi STIG CT Unit	STIGCT_2_LODI	19.71	19.71	3,111	
Natural Gas Totals	_	58.51	57.93	203,063	
Geothermal					
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	3.99	3.72	25,501	
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	4.11	3.36	26,216	
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	5.42	5.15	34,612	
Calpine Geothermal Phase I	Portfolio	5.00	5.00	41,867	
Calpine Geothermal Phase II	Portfolio	5.00	5.00	41265	
Geothermal Totals	_	23.52	22.23	169,461	
Hydroelectric					
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	25.60	25.60	54,168	
Forbestown Hydro	FORBST_7_UNIT 1	3.09	3.09	17,640	
Kelly Ridge Hydro	KELYRG_6_UNIT	0.91	0.91	6,100	
Sly Creek Hydro	SLYCRK_1_UNIT 1	1.07	1.07	1,421	
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	0.62	0.62	2,865	
Woodleaf Hydro	WDLEAF_7_UNIT 1	4.94	4.94	31,483	
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	8.11	7.65	13,765	
Hydroelectric Totals	_	44.34	43.88	127,442	
Solar					
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B	10.00	8.68	26,105	
Astoria Solar	ASTORA_2_SOLAR2	10.00	1.40	30,038	
Solar Totals	-	20.00	10.08	56,143	
Totals	-	146.87	134.12	556,109	

Table 33 details the generation resources allocated to the City of Lodi Electric Utility.

Table 33. City of Lodi Generation Resources

# City of Lompoc Generation Resources

Table 34 details the generation resources allocated to the City of Lompoc Electric Department.

Resource	Resource ID	LOM MW	LOM NQC	LOM MWh	
Natural Gas					
Alameda CT Unit 1	ALMEGT_1_UNIT 1	1.46	1.37	682	
Alameda CT Unit 2	ALMEGT_1_UNIT 2	1.46	1.37	683	
Lodi Energy Center CC	LODIEC_2_PL1X2	6.17	6.17	42,030	
Lodi CT Unit	LODI25_2_UNIT 1	1.46	1.39	309	
Lodi STIG CT Unit	STIGCT_2_LODI	2.50	2.50	394	
Natural Gas Totals	-	13.05	12.80	44,098	
Geothermal					
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	1.43	1.33	9,131	
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	1.47	1.20	9,387	
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	1.94	1.84	12,394	
Calpine Geothermal Phase I	Portfolio	0.85	0.85	7,117	
Calpine Geothermal Phase II	Portfolio	0.85	0.85	7015	
Geothermal Totals	-	6.54	6.07	45,044	
Hydroelectric					
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	5.68	5.68	12,014	
Forbestown Hydro	FORBST_7_UNIT 1	0.77	0.77	4,411	
Kelly Ridge Hydro	KELYRG_6_UNIT	0.23	0.23	1,525	
Sly Creek Hydro	SLYCRK_1_UNIT 1	0.27	0.27	355	
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	0.14	0.14	636	
Woodleaf Hydro	WDLEAF_7_UNIT 1	1.23	1.23	7,873	
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	4.60	4.34	7,814	
Hydroelectric Totals	-	12.92	12.66	34,628	
Totals	-	32.51	31.53	123,770	

Table 34. City of Lompoc Generation Resources

# City of Palo Alto Generation Resources

Resource	Resource ID	PAL MW	PAL NQC	PAL MWh
Natural Gas				
Cooperatively-Owned Back-Up Generator	PALALT_7_COBUG	4.50	4.50	652
Natural Gas Totals	_	4.50	4.50	652
Landfill Biogas				
Ameresco San Joaquin Landfill	CORRAL_6_SJOAQN	4.30	4.22	37,607
Johnson Canyon Landfill	GONZLS_6_UNIT	1.42	1.42	12,439
Keller Canyon Landfill	KIRKER_7_KELCYN	1.78	1.78	15,593
Ox Mountain Landfill	OXMTN_6_LNDFIL	5.31	5.31	46,516
Santa Cruz Landfill	GRNVLY_7_SCLAND	1.52	1.52	13,315
Landfill Biogas Totals	-	14.33	14.25	125,470
Geothermal				
Calpine Geothermal Phase I	Portfolio	5.00	5.00	41,867
Calpine Geothermal Phase II	Portfolio	5.00	5.00	41,265
Geothermal Totals	—	10.00	10.00	83,132
Hydroelectric				
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	56.58	56.58	119,722
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	1.38	1.38	6,333
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	175.40	165.57	297,764
Hydroelectric Totals	_	233.36	223.53	423,819
Solar				
EE Kettleman Solar	EEKTMN_6_SOLAR1	20.00	0.00	51,557
Elevation Solar C (Big Sky)	BIGSKY_2_SOLAR2	40.00	34.90	109,981
Frontier Solar (Crow Creek)	CRWCKS_1_SOLAR1	20.00	0.00	51,037
Hayworth Solar	LAMONT_1_SOLAR4	26.66	18.93	51,495
Rosamond Solar (Palo Alto)	RTEDDY_2_SPASR4	26.00	7.80	75,418
Western Antelope Blue Sky Ranch B Solar	BIGSKY_2_SOLAR4	20.00	17.52	53,172
Solar Totals	-	152.66	79.15	392,660
Wind				
High Winds	BRDSLD_2_HIWIND	20.00	4.60	47,478
Wind Totals	-	20.00	4.60	47,478
Totals	-	434.85	336.03	1,073,211

Table 35 details the generation resources allocated to the City of Palo Alto Electric Utility.

Table 35. City of Palo Alto Generation Resources

# Plumas-Sierra REC Generation Resources

Table 36 details the generation resources allocated to the Plumas-Sierra Rural Electric Cooperative.

Resource	Resource ID	PLU MW	PLU NQC	PLU MWh	
Natural Gas					
Alameda CT Unit 1	ALMEGT_1_UNIT 1	0.45	0.43	213	
Alameda CT Unit 2	ALMEGT_1_UNIT 2	0.45	0.43	212	
High Sierra Cogeneration Aggregate	PLMSSR_6_HISIER	6.00	6.00	25,236	
Lodi Energy Center CC	LODIEC_2_PL1X2	2.39	2.39	16,226	
Lodi CT Unit	LODI25_2_UNIT 1	0.45	0.43	96	
Natural Gas Totals	-	9.74	9.68	41,983	
Geothermal					
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	0.27	0.26	1,739	
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	0.28	0.23	1,788	
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	0.37	0.35	2,360	
Geothermal Totals	-	0.92	0.84	5,887	
Hydroelectric					
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	4.17	4.17	8,828	
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	0.10	0.10	467	
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	32.96	31.11	55,953	
Hydroelectric Totals	-	37.23	35.38	65,248	
Totals	-	47.89	45.90	113,118	

 Table 36.
 Plumas-Sierra REC Generation Resources
### Port of Oakland: Airport Generation Resources

Resource	Resource ID	POA MW	POA NQC	POA MWh
Geothermal				
Calpine Geothermal Phase I	Portfolio	1.15	1.15	9,629
Calpine Geothermal Phase II	Portfolio	1.15	1.15	9,491
Geothermal Totals	_	2.30	2.30	19,120
Hydroelectric				
Forbestown Hydro	FORBST_7_UNIT 1	0.33	0.33	1,880
Kelly Ridge Hydro	KELYRG_6_UNIT	0.10	0.10	650
Sly Creek Hydro	SLYCRK_1_UNIT 1	0.11	0.11	151
Woodleaf Hydro	WDLEAF_7_UNIT 1	0.53	0.53	3,335
Hydroelectric Totals	—	1.07	1.07	6,016
Solar				
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B	2.00	1.66	4,988
Solar Totals	—	2.00	1.66	4,988
Totals	-	5.37	5.03	30,124

Table 37 details the generation resources allocated to the Port of Oakland Airport.

Table 37. Port of Oakland: Airport Generation Resources

### Port of Oakland: Harbor Generation Resources

Table 38 details the generation resources allocated to the Port of Oakland Harbor.

Resource	Resource ID	POH MW	POH NQC	POH MWh
Hydroelectric				
Forbestown Hydro	FORBST_7_UNIT 1	0.60	0.60	3,412
Kelly Ridge Hydro	KELYRG_6_UNIT	0.18	0.18	1,180
Sly Creek Hydro	SLYCRK_1_UNIT 1	0.21	0.21	275
Woodleaf Hydro	WDLEAF_7_UNIT 1	0.96	0.96	6,090
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	8.62	8.14	14,635
Hydroelectric Totals	—	10.57	10.09	25,592
Solar				
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B	2.08	1.81	5,454
Solar Totals	-	2.08	1.81	5,454
Totals	-	12.65	11.90	31,046

Table 38. Port of Oakland: Harbor Generation Resources

## Silicon Valley Power Generation Resources

Table 39 details the current and planned generation resources owned and allocated to Silicon Valley Power. Silicon Valley Power's portfolio comprises approximately 66 percent of the total generation for all study members.

Resource	Resource ID	SVP MW	SVP NQC	SVP MWh	
Natural Gas					
Alameda CT Unit 1	ALMEGT_1_UNIT 1	10.42	9.77	4,874	
Alameda CT Unit 2	ALMEGT_1_UNIT 2	10.42	9.77	4,874	
Donald Von Raesfeld Project	DUANE_1_PL1X3	147.80	147.80	1,105,607	
Gianera Peaker GT Unit 1	CSCGNR_1_UNIT 1	24.75	24.00	2,830	
Gianera Peaker GT Unit 2	CSCGNR_1_UNIT 2	24.75	24.00	2,830	
Lodi Energy Center CC	LODIEC_2_PL1X2	77.91	77.91	531,564	
Lodi CT Unit	LODI25_2_UNIT 1	10.42	9.92	2,204	
Santa Clara Cogeneration #1	CSCCOG_1_UNIT 1	3.50	3.00	5,099	
Natural Gas Totals	-	309.97	306.17	1,659,882	
Landfill Biogas					
Ameresco Forward Landfill	WEBER_6_FORWRD	4.20	4.20	31,483	
Ameresco Vasco Landfill	CAYTNO_2_VASCO	4.30	4.30	32,867	
G2 Landfill	WHEATL_6_LNDFIL	1.60	1.60	6,253	
Landfill Biogas Totals	-	10.10	10.10	70,603	
Geothermal		•		-	
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	17.25	16.04	110,117	
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	17.73	14.49	113,206	
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	23.41	22.26	149,462	
Calpine Geothermal Phase I	Portfolio	35.00	35.00	293,069	
Calpine Geothermal Phase II	Portfolio	35.00	35.00	288,855	
Geothermal Totals	-	128.39	122.79	954,709	
Hydroelectric					
Beardsley Hydro	BEARDS_7_UNIT 1	11.50	9.18	48,371	
Black Butte Hydro	BLCKBT_2_STONEY	6.20	2.02	7,886	
Camp Far West Hydro	CAMPFW_7_FARWST	6.80	3.60	25,628	
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	91.39	91.39	193,374	
Donnells Hydro	DONNLS_7_UNIT	72.00	72.00	228,089	
Forbestown Hydro	FORBST_7_UNIT 1	24.07	24.07	137,600	
Friant Hydro I	FRIANT_6_UNITS	25.00	22.30	66,262	
Kelly Ridge Hydro	KELYRG_6_UNIT	7.06	7.06	47,586	
Quinten Luallen Hydro	WOODWR_1_HYDRO	7.30	0.00	39,753	
Rio Bravo Hydro	RIOBRV_6_UNIT 1	14.00	8.52	27,502	
Sandbar Hydro	SNDBAR_7_UNIT 1	16.00	7.40	2,720	

#### B. NCPA and Member Resources

B2. Member Generation Resources

Resource	Resource ID	SVP MW	SVP NQC	SVP MWh
Sly Creek Hydro	SLYCRK_1_UNIT 1	8.35	8.35	11,085
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	2.22	2.22	10,229
Stony Gorge Hydro Aggregate	ELKCRK_6_STONYG	4.90	2.20	7,139
Tulloch Hydro	TULLCK_7_UNITS	25.90	18.34	109,807
WAPA Base Resource	NCPA_TRCYPGAE_I_F_MHBR02	136.00	129.12	231,813
Woodleaf Hydro	WDLEAF_7_UNIT 1	38.52	38.52	245,581
Hydroelectric Totals	-	497.21	446.29	1,440,425
Solar				
Aquamarine Westside Solar	AQUAWS_2_AQWSR1	22.50	10.80	58,514
Central 40 Solar	CENT40_1_C40SR1	40.00	15.60	92,521
Rosamond Solar (SVP)	RSMSLR_6_SOLAR1	20.00	2.88	58,206
Solar Totals	_	82.50	29.28	209,241
Wind				
Big Horn 1 Wind	NCPA_TRCYCOTP_I_F_CO10	105.00	36.90	263,502
Big Horn 2 Wind	NCPA_TRCYCOTP_I_F_C011 NCPA_TRCYCOTP_I_F_C012	17.50	5.30	42,006
Cimarrón Wind	tbd	300.00	0.00	748,627
Manzana Wind	MANZNA_2_WIND	50.00	7.20	136,297
Wind Totals	-	472.50	49.40	1,190,432
Totals	-	1,500.67	964.03	5,525,292

Table 39.Silicon Valley Power Generation Resources

## City of Ukiah Generation Resources

Resource	Resource ID	UKI MW	UKI NQC	UKI MWh
Natural Gas				
Alameda CT Unit 1	ALMEGT_1_UNIT 1	2.27	2.13	1,064
Alameda CT Unit 2	ALMEGT_1_UNIT 2	2.27	2.13	1,063
Lodi Energy Center CC	LODIEC_2_PL1X2	5.42	5.42	36,869
Lodi CT Unit	LODI25_2_UNIT 1	2.27	2.16	481
Natural Gas Totals	-	12.23	11.84	39,477
Geothermal				
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	2.18	2.03	13,929
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	2.24	1.83	14,319
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	2.96	2.81	18,905
Geothermal Totals	-	7.38	6.67	47,153
Hydroelectric				
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	5.04	5.04	10,656
Forbestown Hydro	FORBST_7_UNIT 1	0.62	0.62	3,528
Kelly Ridge Hydro	KELYRG_6_UNIT	0.18	0.18	1,220
Sly Creek Hydro	SLYCRK_1_UNIT 1	0.21	0.21	284
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	0.12	0.12	564
Ukiah Lake Mendocino Hydro	UKIAH_7_LAKEMN	3.50	1.70	6,906
Woodleaf Hydro	WDLEAF_7_UNIT 1	0.99	0.99	6,297
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	4.93	4.65	8,370
Hydroelectric Totals	-	15.59	13.51	37,825
Totals	-	35.20	32.02	124,455

Table 40 details the generation resources allocated to the City of Ukiah Electric Utility.

Table 40. City of Ukiah Generation Resources

### B3. NCPA AND MEMBER RESOURCE ALLOCATION BY TYPE

#### Thermal Non-Renewable Resource Allocation

Table 41 lists the member allocation for the thermal natural gas-fired resources. NCPA members are allocated 43.73 percent of the Lodi Energy Center output, and 63.5 percent of the Lodi STIG output. Non-NCPA utilities are allocated the remaining Lodi Energy Center (56.27 percent) output; Roseville Electric is allocated the remaining 36.5 percent Lodi STIG CT output. There is a seasonal output exchange between the city of Lompoc and Roseville Electric. From April 1 through October 31, the City of Lompoc's 5 percent is allocated to Roseville Electric; during the other five months, 10.5 percent of Roseville Electric's share is allocated to the City of Lompoc. NCPA members are allocated 100 percent of all other thermal resources. See Table 22 (page B-2) for detailed information about each thermal unit; see also Table 48 (page B-27) for the 2023 NQC of these thermal units.

Resource	Resource ID	ALA	BIG	GRI	HEA	LOD	LOM	PAL	PLU	POA	РОН	SVP	UKI
Alameda CT Unit 1	ALMEGT_1_UNIT 1	21.82%	0.20%	0.35%	5.83%	13.39%	5.83%	—	1.82%	_	_	41.67%	9.09%
Alameda CT Unit 2	ALMEGT_1_UNIT 2	21.82%	0.20%	0.35%	5.83%	13.39%	5.83%	_	1.82%	_	_	41.67%	9.09%
Cooperatively-Owned Back- Up Generator	PALALT_7_COBUG	-	-	-	-	—	-	100.00%	-	-	_	-	
Donald Von Raesfeld Project	DUANE_1_PL1X3		_	I	Ι	_	_	_	_	1	_	100.00%	Ι
Gianera Peaker GT Unit 1	CSCGNR_1_UNIT 1			Ι		-					-	100.00%	
Gianera Peaker GT Unit 2	CSCGNR_1_UNIT 2	_	_	-	-	_	_	_	_	_	_	100.00%	_
High Sierra Cogeneration Aggregate	PLMSSR_6_HISIER	-	-	-	-	-	-	-	100.00%	_	_	-	-
Lodi Energy Center CC	LODIEC_2_PL1X2		0.27%	1.96%	1.64%	9.50%	2.04%		0.79%	I	_	25.75%	1.79%
Lodi CT Unit	LODI25_2_UNIT 1	21.82%	0.20%	0.35%	5.83%	13.39%	5.83%	—	1.82%	_	_	41.67%	9.09%
Lodi STIG CT Unit	STIGCT_2_LODI	19.00%	_	-	-	39.50%	5.00%	_	_	_	_	_	_
Santa Clara Cogeneration #1	CSCCOG_1_UNIT 1	—	-	-	-	-	-	-	-	-	-	100.00%	-

Table 41. NCPA Member Thermal Non-Renewable Resource Allocation

### Landfill Biogas Resource Allocation

Table 42 lists the member allocation for the landfill biogas resources. Silicon Valley Power is allocated 45 percent of the G2 Landfill output; non-NCPA utilities are allocated the remaining 55 percent. NCPA members are allocated 100 percent of all other landfill biogas resources. See Table 23 (page B-3) for detailed information about each landfill biogas unit; see also Table 49 (page B-28) for the 2023 NQC of these landfill biogas units.

Resource	Resource ID	ALA	BIG	GRI	HEA	LOD	LOM	PAL	PLU	POA	РОН	SVP	UKI
Ameresco Forward Landfill	WEBER_6_FORWRD				-	Ι	-	-			-	100%	
Ameresco San Joaquin Landfill	CORRAL_6_SJOAQN	-	-	-	_	-	_	100%	-	-	_	-	-
Ameresco Vasco Landfill	CAYTNO_2_VASCO	I	I	I	-	I	-	-	I	I	-	100%	I
G2 Landfill	WHEATL_6_LNDFIL	١	١	١	-	Ι	-	-	I	١	-	45%	I
Johnson Canyon Landfill	GONZLS_6_UNIT	_	_	_	_	_	_	100%	_	_	_	-	_
Keller Canyon Landfill	KIRKER_7_KELCYN	50%	١	١	-	Ι	-	50%	I	١	-	Ι	I
Neal Road Landfill	ESQUON_6_LNDFIL	100%	I	I	-	I	-	-	I	I	-	I	I
Ox Mountain Landfill	OXMTN_6_LNDFIL	50%	١	١	-	Ι	-	50%	I	١	-	Ι	I
Santa Cruz Landfill	GRNVLY_7_SCLAND	50%	—	—	—	—	—	50%	—	—	—	—	—

Table 42. NCPA Member Landfill Biogas Resource Allocation

### Geothermal Resource Allocation

Table 43 lists the member allocation for the geothermal resources. NCPA members are allocated 85.79 percent of the four Geysers Plant units' output (non-NCPA utilities are allocated the remaining 14.21 percent) and are allocated 100 percent of the Calpine Geothermal output. See Table 24 (page B-4) for detailed information about each geothermal unit; see also Table 51 (page B-29) for the 2023 NQC of these geothermal units.

Resource	Resource ID	ALA	BIG	GRI	HEA	LOD	LOM	PAL	PLU	POA	РОН	SVP	UKI
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	16.88%	0.23%	0.34%	3.67%	10.28%	3.68%	—	0.70%	_	—	44.39%	5.62%
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	16.88%	0.23%	0.34%	3.67%	10.28%	3.68%	_	0.70%		—	44.39%	5.62%
The Geysers Plant 2 Unit 3	NCPA_7_GP2UN3	_	_	_	_	_	_	_	—	_	_	_	
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	16.88%	0.23%	0.34%	3.67%	10.28%	3.68%	_	0.70%	-	_	44.39%	5.62%
Calpine Geothermal Phase I*	Portfolio	5.00%	0.40%	0.60%	_	10.00%	1.70%	10.00%	_	2.30%	_	70.00%	
Calpine Geothermal Phase II§	Portfolio	5.00%	0.40%	0.60%	-	10.00%	1.70%	10.00%	_	2.30%	_	70.00%	Ι

\* Phase I has a COD of 2025.

§ Phase II adds 50 MW to nameplate capacity with a COD of 2027.

 Table 43.
 NCPA Member Geothermal Resource Allocation

### WAPA Hydroelectric Resource Allocation

Table 44 lists the member allocation for WAPA hydroelectric resource PPA. See Table 26 (page B-6) for detailed information the WAPA generation; see also Table 50 (page B-28) for the 2023 NQC of the WAPA resources.

Resource	Resource ID	ALA	BIG	GRI	HEA	LOD	LOM	PAL	PLU	POA	РОН	SVP	UKI
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	6.39%	1.56%	3.50%	1.33%	3.01%	1.71%	65.20%	12.25%		3.20%	-	1.83%
WAPA Central Valley Project	NCPA_TRCYPGAE_I_F_MHBR02	-	-	-	-	-	—	-	—	_	-	100.00%	-

Table 44. NCPA Member WAPA Hydroelectric Resource Allocation

#### Hydroelectric Resource Allocation

Table 45 lists the member allocation for the hydroelectric resources. NCPA members are allocated 88 percent of the output from Collierville Hydro Units 1 & 2 Aggregate and Spicer Hydro Units 1–3 Aggregate, and 80.25 percent of South Feather Hydroelectric Power Project. The remaining output from these hydroelectric resources are allocated to non-NCPA utilities. Combie South Hydro provides RPS value to the City of Lodi. NCPA members are allocated 100 percent of the output from all other hydroelectric resources. See Table 25 (page B-6) for detailed information about each hydroelectric unit; see also Table 53 (page B-31) for the 2023 NQC of these hydroelectric units.

Resource	Resource ID	ALA	BIG	GRI	HEA	LOD	LOM	PAL	PLU	POA	РОН	SVP	UKI
NCPA Hydroelectric Resources													
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	10.00%	Ι		1.66%	10.37%	2.30%	22.92%	1.69%	-	-	37.02%	2.04%
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	10.00%	Ι		1.66%	10.37%	2.30%	22.92%	1.69%	-	-	37.02%	2.04%
Tri-Dam Hydroelectric Project													
Beardsley Hydro	BEARDS_7_UNIT 1	—	Ι					-	-	-	-	100.00%	
Donnells Hydro	DONNLS_7_UNIT	—	Ι						_	_	_	100.00%	
Sandbar Hydro	SNDBAR_7_UNIT 1	—	Ι					-	-	-	-	100.00%	
Tullock Hydro	TULLCK_7_UNITS	—		_				_	_	_	_	100.00%	
South Feather Hydroelectric Pro	oject												
Forbestown Hydro	FORBST_7_UNIT 1	—	Ι		1.65%	8.23%	2.06%			0.88%	1.59%	64.20%	1.65%
Kelly Ridge Hydro	KELYRG_6_UNIT	—		-	1.65%	8.23%	2.06%			0.88%	1.59%	64.20%	1.65%
Sly Creek Hydro	SLYCRK_1_UNIT 1	—	-	-	1.65%	8.23%	2.06%	—	—	0.88%	1.59%	64.20%	1.65%
Woodleaf Hydro	WDLEAF_7_UNIT 1	—		-	1.65%	8.23%	2.06%	—	_	0.88%	1.59%	64.20%	1.65%
Other Hydroelectric Resources													
Black Butte Hydro	BLCKBT_2_STONEY	—		-				_	_	_	_	100.00%	
Camp Far West Hydro	CAMPFW_7_FARWST	—	Ι	-				_	_	_	_	100.00%	
Combie South Hydro	HIGGNS_1_COMBIE	—		-		100.00%		_	_	_	_	_	
Friant Hydro I	FRIANT_6_UNITS	—	—	—	-	—	-	—	-	-	—	100.00%	_
Grizzly Hydro*	GRIZLY_1_UNIT 1	—	_	—	-	—	-	—	-	-	—	100.00%	—
Quinten Luallen Hydro	WOODWR_1_HYDRO	_	-	—	-	_	-	_	-	-	-	100.00%	_

#### B. NCPA and Member Resources

B3. NCPA and Member Resource Allocation by Type

Resource	Resource ID	ALA	BIG	GRI	HEA	LOD	LOM	PAL	PLU	POA	РОН	SVP	UKI
Rio Bravo Hydro	RIOBRV_6_UNIT 1	_	_	_	_	_	_	_	_	_	_	100.00%	_
Stony Gorge Hydro Aggregate	ELKCRK_6_STONYG	_	_	_		—	_		_			100.00%	
Ukiah Lake Mendocino Hydro	UKIAH_7_LAKEMN	_	_	_	_	_	_	_	_	-	_	_	100.00%

\* Grizzly outage due to PG&E transmission problem; scheduled to come back online in June 2024

#### Table 45. NCPA Member Hydroelectric Resource Allocation

#### Wind Resource Allocation

Table 46 lists the member allocation for the wind resources. NCPA members are allocated 100 percent of all wind resources. See Table 28 (page B-8) for detailed information about each wind unit; see also Table 52 (page B-29) for the 2023 NQC of these wind units.

Resource	Resource ID	ALA	BIG	GRI	HEA	LOD	LOM	PAL	PLU	POA	РОН	SVP	UKI
Big Horn 1 Wind	NCPA_TRCYCOTP_I_F_CO10	_		-	I	-		_		-	_	100%	
Big Horn 2 Wind	NCPA_TRCYCOTP_I_F_C011 NCPA_TRCYCOTP_I_F_C012	_	Ι	_	Ι	_	_	_	Ι	_	-	100%	Ι
Cimarrón Wind*	tbd	_		-	I	-		_		-	_	100%	
High Winds	BRDSLD_2_HIWIND	33.33%	-	_	-	-	_	66.67%		_	_		-
Manzana Wind	MANZNA_2_WIND	_	_	_	_	_	_	_	_	_	_	100%	-

\* Cimarrón Wind has a COD of 2025.

Table 46. NCPA Member Wind Resource Allocation

### Solar Resource Allocation

Table 47 lists the member allocation for the solar resources. Silicon Valley Power is allocated 30 percent of the output from Aquamarine Westside Solar; the remainder is owned by non-NCPA utilities. BART is allocated 100 percent of the output from Slate\_1 Solar. NCPA members are allocated 100 percent of the output from all other solar resources. See Table 27 for detailed information about each solar unit; see also Table 54 for the 2023 NQC of these solar units.

Resource	Resource ID	ALA	BIG	GRI	HEA	LOD	LOM	PAL	PLU	POA	РОН	SVP	UKI
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B		1.47%	4.41%	11.77%	58.82%	-	-	I	11.77%	11.76%	-	—
Aquamarine Westside Solar	AQUAWS_2_AQWSR1	_	_	_	-	_	-	-	Ι	_	_	30%	_
Astoria Solar	ASTORA_2_SOLAR2	_	_	_	_	100%	-	-	—	_	_	-	_
Central 40 Solar	CENT40_1_C40SR1	-	_	_	-	_	_	-	_	_	_	100%	_
EE Kettleman Solar	EEKTMN_6_SOLAR1	_	_	_	_	_	-	100%	—	_	_	-	_
Elevation Solar C (Big Sky)	BIGSKY_2_SOLAR2	-	_	_	-	_	_	100%	_	_	_	-	_
Frontier Solar (Crow Creek)	CRWCKS_1_SOLAR1	_	_	_	_	_	-	100%	—	_	_	-	_
Gridley Main One Solar	not applicable	-	_	100%	-	_	_	-	_	_	_	-	_
Gridley Main Two Solar	GRIDLY_6_SOLAR	_	_	100%	_	_	-	-	—	_	_	-	_
Hayworth Solar	LAMONT_1_SOLAR4	-	_	_	-	_	_	100%	_	_	_	-	_
Rosamond Solar (Palo Alto)	RTEDDY_2_SPASR4	_	_	_	_	_	-	100%	—	_	_	-	_
Rosamond One Solar (SVP)	RSMSLR_6_SOLAR1	_	_	_	-	_	-	-	Ι	_	_	100%	_
Slate_1 Solar	SLATE_2_SLASR1	_	_	_	_	_	-	-	—	_	_	Ι	_
Western Antelope Blue Sky Ranch B Solar	BIGSKY_2_SOLAR4	-	_	_	-	_	_	100%	_	_	_	_	_

Table 47. NCPA Member Solar Resource Allocation

### B4. RESOURCE NET QUALIFYING CAPACITY DATA FOR 2023

Appendix D contains the net qualifying capacity (NQC) amounts for every NCPA member resource for the twelve months in 2023, organized by generation type. Peak demand occurs in July for NCPA members in aggregate. These NQC values also reflect planned maintenance outages for various resources.

### Thermal Non-Renewable Resource NQC

Table 48 details the NQC of each thermal, natural-gas fired unit for 2023. See Table 22 (page B-2) for detailed information about each thermal unit; see Table 41 (page B-21) for the member allocation of these thermal resources.

Resource	Resource ID	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alameda CT Unit 1	ALMEGT_1_UNIT 1	23.40	0.00	23.40	23.40	23.40	23.40	23.40	23.40	23.40	23.40	23.40	23.40
Alameda CT Unit 2	ALMEGT_1_UNIT 2	23.50	0.00	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50	23.50
Cooperatively-Owned Back- Up Generator	PALALT_7_COBUG	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Donald Von Raesfeld Project	DUANE_1_PL1X3	147.80	147.80	147.80	147.80	143.50	143.50	143.50	143.50	143.50	147.80	147.80	147.80
Gianera Peaker GT Unit 1	CSCGNR_1_UNIT 1	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
Gianera Peaker GT Unit 2	CSCGNR_1_UNIT 2	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00
High Sierra Cogeneration Aggregate	PLMSSR_6_HISIER	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Lodi Energy Center CC	LODIEC_2_PL1X2	302.58	302.58	302.58	0.00	302.58	302.58	302.58	302.58	302.58	302.58	302.58	302.58
Lodi CT Unit	LODI25_2_UNIT 1	23.80	23.80	0.00	23.80	23.80	23.80	23.80	23.80	23.80	23.80	23.80	23.80
Lodi STIG CT Unit	STIGCT_2_LODI	49.50	49.50	49.50	0.00	49.50	49.50	49.50	49.50	49.50	49.50	49.50	49.50
Santa Clara Cogeneration #1	CSCCOG_1_UNIT 1	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Totals	-	632.58	585.68	608.78	280.50	628.28	628.28	628.28	628.28	628.28	632.58	632.58	632.58

Table 48. Thermal Non-Renewable Resource NQC for 2023

### Landfill Biogas Resource NQC

Table 49 details the NQC of each landfill biogas unit for 2023. See Table 23 (page B-3) for detailed information about each landfill biogas unit; see Table 42 (page B-22) for the member allocation of these landfill biogas resources.

Resource	Resource ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ameresco Forward Landfill	WEBER_6_FORWRD	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20
Ameresco San Joaquin Landfill	CORRAL_6_SJOAQN	4.28	4.21	4.19	4.30	4.21	4.21	4.22	4.28	4.25	4.28	4.22	4.29
Ameresco Vasco Landfill	CAYTNO_2_VASCO	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30	4.30
G2 Landfill	WHEATL_6_LNDFIL	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
Johnson Canyon Landfill	GONZLS_6_UNIT	1.42	1.41	1.42	1.40	1.33	1.41	1.40	1.40	1.41	1.41	1.41	1.40
Keller Canyon Landfill	KIRKER_7_KELCYN	3.56	3.55	3.54	3.56	3.56	3.35	3.55	3.37	3.56	3.54	3.56	3.56
Neal Road Landfill	ESQUON_6_LNDFIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ox Mountain Landfill	OXMTN_6_LNDFIL	10.33	10.46	10.50	10.52	10.37	10.42	9.24	10.50	10.60	10.32	10.52	10.52
Santa Cruz Landfill	GRNVLY_7_SCLAND	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04	3.04
Totals		32.73	32.77	32.79	32.92	32.61	32.53	31.55	32.69	32.96	32.69	32.85	32.91

Table 49. Landfill Biogas Resource NQC for 2023

### WAPA Hydroelectric Resource NQC

Table 51 details the NQC of the WAPA hydroelectric resources for 2023. See Table 26 (page B-6) for detailed information about the WAPA generation; see Table 44 (page B-23) for the member allocation of these WAPA hydroelectric resources.

Resource	Resource ID	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WAPA Pool Base	NCPA_TRCYPGAE_I_F_MHBR02	206.35	182.75	222.21	235.43	266.39	269.03	253.93	239.96	228.44	170.67	189.93	200.50
WAPA Central Valley Project SVP	NCPA_TRCYPGAE_I_F_MHBR02	104.93	92.93	112.99	119.71	135.46	136.80	129.12	122.02	116.16	86.78	96.58	101.95
Totals	-	311.28	275.68	335.20	355.14	401.85	405.83	383.05	361.98	344.60	257.46	286.50	302.45

Table 50. WAPA Hydroelectric Resource NQC for 2023

### Geothermal Resource NQC

Table 51 details the NQC of each geothermal unit for 2023. See Table 24 (page B-4) for detailed information about each geothermal unit; see Table 43 (page B-23) for the member allocation of these geothermal resources.

Resource	Resource ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	31.00	31.00	0.00	31.00	31.00	31.00	31.00	31.00	31.00	31.00	38.85	31.00
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	28.00	28.00	0.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	39.94	28.00
The Geysers Plant 2 Unit 3	NCPA_7_GP2UN3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	43.00	43.00	52.73	43.00	43.00	43.00	43.00	43.00	43.00	43.00	0.00	43.00
Calpine Geothermal Phase I*	Portfolio	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Calpine Geothermal Phase II§	Portfolio	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Totals	-	202.00	202.00	152.73	202.00	202.00	202.00	202.00	202.00	202.00	202.00	178.79	202.00

Table 51. Geothermal Resource NQC for 2023

### Wind Resource NQC

Table 52 details the NQC of each wind unit for 2023. See Table 28 (page B-8) for detailed information about each wind unit; see Table 46 (page B-25) for the member allocation of these wind resources.

Resource	Resource ID	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Big Horn 1 Wind	NCPA_TRCYCOTP_I_F_CO10	34.70	29.30	39.90	36.30	39.40	39.40	36.90	34.80	32.00	35.10	31.50	32.80
Big Horn 2 Wind	NCPA_TRCYCOTP_I_F_C011 NCPA_TRCYCOTP_I_F_C012	5.70	4.70	6.50	6.20	6.30	6.30	5.50	5.30	4.80	5.40	5.50	5.20
Cimarrón Wind*	tbd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Winds	BRDSLD_2_HIWIND	4.20	3.60	8.40	7.50	7.50	9.90	6.90	6.30	4.50	2.40	3.60	3.90
Manzana Wind	MANZNA_2_WIND	8.84	9.40	8.26	7.91	8.41	7.71	7.16	5.44	5.62	5.22	7.03	8.52
Totals		53.44	47.00	63.06	57.91	61.61	63.31	56.46	51.84	46.92	48.12	47.63	50.42

Table 52. Wind Resource NQC for 2023

### Hydroelectric Resource NQC

Table 53 details the NQC of each hydroelectric unit for 2023. See Table 25 (page B-6) for detailed information about each hydroelectric unit; see Table 45 for the member allocation of these hydroelectric resources and Table 44 (page B-23) for their WAPA allocation.

Resource	Resource ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NCPA Hydroelectric Resources			-	-	-	-	-						
Collierville Hydro Units 1 & 2 Aggregate	COLVIL_7_PL1X2	246.86	246.86	246.86	246.86	246.86	246.86	246.86	246.86	246.86	123.43	246.86	246.86
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	3.00	6.00	6.00	6.00
NCPA Hydro Resources Totals	-	252.86	252.86	252.86	252.86	252.86	252.86	252.86	252.86	249.86	129.43	252.86	252.86
Tri-Dam Hydroelectric Project													
Beardsley Hydro	BEARDS_7_UNIT 1	4.50	0.96	1.60	4.10	5.00	5.50	5.10	4.80	0.80	0.80	6.20	7.48
Donnells Hydro	DONNLS_7_UNIT	65.95	66.32	67.86	65.21	70.10	72.00	72.00	72.00	72.00	70.02	67.92	66.81
Sandbar Hydro	SNDBAR_7_UNIT 1	6.45	3.95	5.65	8.30	8.30	7.45	7.40	7.75	5.10	1.22	7.19	12.58
Tullock Hydro	TULLCK_7_UNITS	4.09	9.03	15.19	19.61	21.79	24.04	22.18	19.14	14.14	9.79	2.93	5.99
Tri-Dam Hydroelectric Totals	-	80.99	80.26	90.30	97.22	105.19	108.99	106.68	103.69	92.04	81.83	84.24	92.86
South Feather Hydroelectric Pro	oject												
Forbestown Hydro	FORBST_7_UNIT 1	37.50	37.50	0.00	37.50	37.50	37.50	37.50	37.50	37.50	37.50	37.50	37.50
Kelly Ridge Hydro	KELYRG_6_UNIT	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	0.00	11.00	11.00
Sly Creek Hydro	SLYCRK_1_UNIT 1	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	0.00	13.00
Woodleaf Hydro	WDLEAF_7_UNIT 1	60.00	0.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
South Feather Hydro Totals	_	61.50	84.00	121.50	121.50	121.50	121.50	121.50	121.50	110.50	108.50	121.50	61.50
Other Hydroelectric Resources													
Black Butte Hydro	BLCKBT_2_STONEY	2.04	1.60	1.30	3.50	2.70	2.57	2.02	1.83	1.50	1.50	2.10	2.51
Camp Far West Hydro	CAMPFW_7_FARWST	0.00	0.00	3.28	2.00	1.06	0.74	3.10	3.70	0.00	0.00	0.00	0.00
Combie South Hydro	HIGGNS_1_COMBIE	0.92	0.91	1.03	1.07	1.17	0.89	0.82	0.67	0.67	0.65	0.85	0.74
Friant Hydro I	FRIANT_6_UNITS	1.20	5.05	6.22	4.67	8.81	15.33	15.50	10.48	6.54	4.60	1.86	1.96
Grizzly Hydro	GRIZLY_1_UNIT 1	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60	17.60
Quinten Luallen Hydro	WOODWR_1_HYDRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

#### B. NCPA and Member Resources

B4. Resource Net Qualifying Capacity Data for 2023

Resource	Resource ID	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rio Bravo Hydro	RIOBRV_6_UNIT 1	0.14	0.19	0.30	4.60	4.35	3.37	6.23	4.72	2.90	1.66	0.29	0.00
Stony Gorge Hydro Aggregate	ELKCRK_6_STONYG	1.80	2.40	2.70	2.20	1.60	1.70	2.20	2.00	1.40	0.40	0.10	0.90
Ukiah Lake Mendocino Hydro	UKIAH_7_LAKEMN	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
Other Hydroelectric Totals	-	25.40	29.45	34.13	37.34	38.99	43.90	49.17	42.70	32.31	28.11	24.50	25.41
Totals		480.75	424.07	461.29	508.92	518.54	527.25	530.21	520.75	495.71	349.87	470.10	492.63

Table 53. Hydroelectric Resource NQC for 2023

### Solar Resource NQC

Table 54 details the NQC of each solar unit for 2023. See Table 27 (page B-7) for detailed information about each solar unit; see Table 47 (page B-26) for the member allocation of these solar resources.

Resource	Resource ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Antelope Phase 1 B Solar	BGSKYN_2_ASSR1B	6.72	8.99	11.15	14.07	14.70	14.83	14.75	14.00	12.80	11.08	7.07	5.21
Aquamarine Westside Solar	AQUAWS_2_AQWSR1	0.30	2.25	2.63	3.30	4.80	9.83	10.80	9.30	8.33	5.55	4.28	2.62
Astoria Solar	ASTORA_2_SOLAR2	0.04	0.29	0.34	0.43	0.62	1.28	1.40	1.21	1.08	0.72	0.56	0.34
Central 40 Solar	CENT40_1_C40SR1	1.60	1.20	7.20	6.00	6.40	12.40	15.60	10.80	5.60	0.80	0.80	0.00
EE Kettleman Solar	EEKTMN_6_SOLAR1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Elevation Solar C (Big Sky)	BIGSKY_2_SOLAR2	15.89	21.29	26.33	32.99	34.51	34.73	34.90	32.62	29.92	25.99	16.62	12.26
Frontier Solar (Crow Creek)	CRWCKS_1_SOLAR1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gridley Main One Solar	not applicable	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gridley Main Two Solar	GRIDLY_6_SOLAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hayworth Solar	LAMONT_1_SOLAR4	6.47	9.82	12.68	16.49	17.33	20.41	18.93	18.20	12.42	9.78	6.12	4.56
Rosamond Solar (Palo Alto)	RTEDDY_2_SPASR4	0.80	0.60	3.60	3.00	3.20	6.20	7.80	5.40	2.80	0.40	0.40	0.00
Rosamond One Solar (SVP)	RSMSLR_6_SOLAR1	0.08	0.60	0.70	0.88	1.28	2.62	2.88	2.48	2.22	1.48	1.14	0.70
Slate_1 Solar	SLATE_2_SLASR1	20.33	30.73	34.07	39.63	42.64	46.41	42.69	37.81	19.22	26.13	18.72	10.28
Western Antelope Blue Sky Ranch B Solar	BIGSKY_2_SOLAR4	7.86	10.50	13.07	16.60	17.33	17.52	17.52	16.64	15.15	13.08	8.32	6.13
Totals		50.75	74.41	99.38	121.00	129.76	155.16	159.93	142.62	118.69	91.93	58.55	42.73

Table 54. Solar Resource NQC for 2023

### Planned Resource Outages

Planned annual maintenance outages affect the monthly NQC amounts for various resources. Table 55 lists the units scheduled for planned maintenance outages, the month of the outage, and information about its maintenance. The NQC amount in Table 48 (page B-27) through Table 52 (page B-29) displays zero for each of the units in Table 55 for the corresponding outage month.

Unit	Resource ID	Outage Month	Notes
Collierville Hydro Unit 1 & 2 Aggregate	COLVIL_7_PL1X2	October	Half of NQC is out for the month because each unit is out on staggered two- week intervals
Spicer Hydro Units 1–3 Aggregate	SPICER_1_UNITS	September	Half of NQC is out for the month because each unit is out on staggered one- week intervals
The Geysers Plant 1 Unit 1	NCPA_7_GP1UN1	March	Normal outage lasts for two weeks
The Geysers Plant 1 Unit 2	NCPA_7_GP1UN2	March	Normal outage lasts for two weeks
The Geysers Plant 2 Unit 4	NCPA_7_GP2UN4	November	Normal outage lasts for two weeks
Alameda CT Unit 1	ALMEGT_1_UNIT 1	February	Normal outage lasts for the month
Alameda CT Unit 2	ALMEGT_1_UNIT 2	February	Normal outage lasts for the month
Lodi CT Unit	LODI25_2_UNIT 1	March	Normal outage lasts for the month
Lodi Energy Center CC	LODIEC_2_PL1X2	April	Normal outage lasts for the month
Lodi STIG CT Unit	STIGCT_2_LODI	April	Normal outage lasts for the month
Forbestown Hydro	FORBST_7_UNIT 1	March	Normal outage lasts for three weeks
Kelly Ridge Hydro	KELYRG_6_UNIT	October	Normal outage lasts for three weeks
Sly Creek Hydro	SLYCRK_1_UNIT 1	November	Normal outage lasts for three weeks
Woodleaf Hydro	WDLEAF_7_UNIT 1	February	Normal outage lasts for three weeks

 Table 55.
 Resource Planned Annual Maintenance Outages

# C. NCPA and Member Energy Forecasts

Appendix C comprises three sets of energy forecast data and related graphs about NCPA and member resources:

- C1. NCPA and Member Monthly Energy Forecast Data (page C-2)
- C2. NCPA and Member Yearly Energy Forecast Data (page C-18)
- C3. Member Energy Forecast Graphs (page C-20)

### C1. NCPA AND MEMBER MONTHLY ENERGY FORECAST DATA

Table 56: NCPA Member Monthly Energy Forecasts (part one) contains the *monthly* energy forecasts for the planning period for seven NCPA members:

- City of Alameda Municipal Power
- Bay Area Rapid Transit District
- City of Biggs Electric Utility
- City of Gridley Electric Department
- City of Healdsburg Electric Department
- City of Lodi Electric Utility
- City of Lompoc Electric Department

	NCPA Study Member Monthly Energy Forecasts: MWh (part one)														
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc							
2023	Jan	33,240	30,545	1,108	2,510	6,619	34,881	12,186							
	Feb	29,881	30,279	677	2,233	5,753	30,876	10,898							
	Mar	31,982	33,731	1,054	2,512	5,878	33,841	11,798							
	Apr	27,911	31,714	1,477	2,274	4,849	32,734	10,793							
	May	27,818	33,413	1,520	2,693	5,673	37,070	11,121							
	Jun	26,726	33,092	1,649	3,368	6,040	42,804	10,803							
	Jul	27,777	32,966	1,872	4,171	6,429	47,246	11,316							
	Aug	28,467	34,786	1,649	3,998	6,720	50,908	11,538							
	Sep	28,179	32,420	1,351	3,221	6,659	41,444	11,297							
	Oct	28,875	33,931	1,212	2,597	6,161	35,660	11,496							
	Nov	29,381	32,123	1,416	2,512	6,047	32,942	11,301							
	Dec	33,056	32,235	1,314	2,810	6,668	35,380	12,035							
2024	Jan	32,595	34,610	1,459	2,723	6,469	35,799	11,861							
	Feb	29,415	32,531	1,173	2,341	5,278	32,204	10,616							
	Mar	30,352	33,914	1,109	2,479	5,205	34,660	11,399							
	Apr	28,184	33,845	1,484	2,373	4,834	34,057	10,782							
	Мау	28,101	34,410	1,520	2,745	5,663	38,358	11,110							
	Jun	26,956	33,324	1,648	3,393	6,031	44,079	10,792							
	Jul	28,366	34,889	1,874	4,189	6,427	48,574	11,308							
	Aug	29,000	35,395	1,647	4,076	6,713	52,157	11,525							
	Sep	28,607	33,369	1,351	3,215	6,666	42,699	11,280							
	Oct	29,364	35,512	1,212	2,609	6,161	36,940	11,485							
	Nov	29,829	32,690	1,413	2,553	6,046	34,200	11,288							
	Dec	33,561	33,673	1,314	2,872	6,672	36,666	12,026							
2025	Jan	32,905	35,578	1,459	2,768	6,526	36,323	11,849							
	Feb	29,618	32,236	1,171	2,314	5,346	32,682	10,591							
	Mar	30,544	35,019	1,110	2,430	5,238	35,184	11,389							

		NCP	A Study Membe	er Monthly Ene	rgy Forecasts:	MWh (part one)		
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc
	Apr	28,298	34,903	1,486	2,332	4,846	34,576	10,772
	May	28,246	35,077	1,519	2,741	5,673	38,852	11,099
	Jun	27,155	34,700	1,649	3,471	6,043	44,593	10,782
	Jul	28,580	36,038	1,875	4,225	6,441	49,099	11,298
	Aug	29,205	35,952	1,645	3,933	6,721	52,634	11,512
	Sep	28,685	34,885	1,333	3,209	6,548	43,153	11,262
	Oct	29,679	36,509	1,213	2,552	6,208	37,573	11,487
	Nov	30,155	33,277	1,413	2,466	6,111	34,703	11,277
	Dec	33,996	35,258	1,315	2,766	6,738	37,176	12,017
2026	Jan	33,492	36,249	1,458	2,690	6,613	36,613	11,837
	Feb	30,149	33,194	1,171	2,301	5,433	32,987	10,581
	Mar	31,092	36,455	1,111	2,441	5,294	35,513	11,380
	Apr	28,783	35,935	1,486	2,362	4,880	34,902	10,762
	Мау	28,773	35,614	1,517	2,732	5,704	39,167	11,088
	Jun	27,688	36,236	1,649	3,387	6,078	44,962	10,772
	Jul	29,028	37,325	1,874	4,144	6,462	49,442	11,287
	Aug	29,629	37,056	1,645	3,942	6,756	53,010	11,502
	Sep	29,067	35,934	1,335	3,224	6,586	43,553	11,253
	Oct	30,100	37,173	1,212	2,584	6,264	37,969	11,476
	Nov	30,566	34,653	1,414	2,454	6,201	35,126	11,268
	Dec	34,462	36,408	1,317	2,722	6,829	37,611	12,008
2027	Jan	33,945	35,812	1,458	2,623	6,708	37,174	11,826
	Feb	30,562	33,194	1,171	2,284	5,521	33,536	10,570
	Mar	31,516	36,984	1,112	2,446	5,350	36,054	11,370
	Apr	29,151	35,843	1,483	2,335	4,913	35,412	10,751
	May	29,186	35,674	1,517	2,774	5,740	39,661	11,078
	Jun	28,110	36,268	1,650	3,377	6,112	45,453	10,761
	Jul	29,306	36,564	1,873	4,140	6,506	49,891	11,275
	Aug	29,880	37,437	1,647	3,951	6,794	53,486	11,494
	Sep	29,292	35,934	1,349	3,232	6,654	44,034	11,246
	Oct	30,387	36,659	1,215	2,674	6,354	38,390	11,477
	Nov	30,794	35,165	1,416	2,540	6,293	35,543	11,259
	Dec	34,711	36,639	1,316	2,807	6,915	37,998	11,996
2028	Jan	34,189	36,179	1,458	2,701	6,736	37,615	11,816
	Feb	30,834	34,519	1,173	2,360	5,550	34,024	10,574
	Mar	31,754	36,924	1,111	2,509	5,380	36,491	11,359
	Apr	29,343	35,024	1,477	2,420	4,937	35,837	10,741
	May	29,435	36,588	1,520	2,763	5,769	40,134	11,068
	Jun	28,367	36,177	1,649	3,294	6,137	45,874	10,751

	NCPA Study Member Monthly Energy Forecasts: MWh (part one)										
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc			
	Jul	29,487	36,098	1,872	4,108	6,531	50,304	11,263			
	Aug	30,035	37,983	1,649	3,958	6,824	53,947	11,485			
	Sep	29,536	35,462	1,351	3,224	6,762	44,471	11,244			
	Oct	30,473	37,101	1,212	2,737	6,336	38,700	11,443			
	Nov	30,934	35,195	1,416	2,574	6,323	35,983	11,249			
	Dec	34,871	35,361	1,314	2,840	6,947	38,413	11,983			
2029	Jan	34,348	36,723	1,459	2,703	6,778	37,853	11,808			
	Feb	30,943	33,194	1,171	2,364	5,582	34,207	10,549			
	Mar	31,910	36,526	1,111	2,506	5,407	36,718	11,348			
	Apr	29,459	35,391	1,479	2,410	4,960	36,071	10,730			
	Мау	29,593	36,603	1,520	2,796	5,796	40,376	11,058			
	Jun	28,527	35,795	1,648	3,383	6,159	46,087	10,740			
	Jul	29,649	36,458	1,873	4,146	6,558	50,556	11,254			
	Aug	30,183	37,909	1,647	4,022	6,845	54,152	11,473			
	Sep	29,623	35,028	1,352	3,250	6,798	44,700	11,230			
	Oct	30,639	37,631	1,212	2,720	6,362	38,933	11,433			
	Nov	31,070	35,103	1,415	2,546	6,354	36,208	11,237			
	Dec	35,044	35,406	1,314	2,858	6,990	38,662	11,977			
2030	Jan	34,510	36,724	1,459	2,704	6,803	37,853	11,797			
	Feb	31,098	33,194	1,171	2,352	5,610	34,207	10,539			
	Mar	32,066	36,013	1,109	2,489	5,432	36,707	11,336			
	Apr	29,583	35,903	1,484	2,421	4,983	36,081	10,720			
	Мау	29,751	36,527	1,520	2,809	5,816	40,358	11,047			
	Jun	28,666	35,357	1,648	3,398	6,181	46,082	10,730			
	Jul	29,797	37,003	1,874	4,142	6,581	50,575	11,245			
	Aug	30,333	37,511	1,647	3,866	6,867	54,144	11,461			
	Sep	29,749	35,394	1,351	3,198	6,816	44,696	11,217			
	Oct	30,829	37,647	1,212	2,697	6,389	38,934	11,423			
	Nov	31,233	34,721	1,413	2,507	6,383	36,196	11,225			
	Dec	35,244	35,773	1,314	2,740	7,013	38,659	11,963			
2031	Jan	34,719	36,632	1,459	2,605	6,831	37,851	11,786			
	Feb	31,296	33,194	1,171	2,328	5,638	34,207	10,528			
	Mar	32,257	36,074	1,110	2,473	5,459	36,709	11,326			
	Apr	29,720	35,935	1,486	2,400	5,006	36,084	10,709			
	May	29,917	36,127	1,519	2,779	5,837	40,341	11,036			
	Jun	28,790	35,721	1,649	3,380	6,203	46,088	10,719			
	Jul	29,969	37,093	1,875	4,123	6,605	50,593	11,235			
	Aug	30,507	36,997	1,645	4,017	6,885	54,118	11,449			
	Sep	29,783	35,904	1,333	3,269	6,707	44,640	11,199			

NCPA Study Member Monthly Energy Forecasts: MWh (part one)										
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc		
	Oct	31,077	37,571	1,213	2,782	6,428	39,061	11,423		
	Nov	31,423	34,285	1,413	2,553	6,412	36,195	11,214		
	Dec	35,473	36,317	1,315	2,816	7,043	38,668	11,954		
2032	Jan	34,949	36,249	1,458	2,682	6,859	37,847	11,774		
	Feb	31,557	34,006	1,172	2,369	5,666	34,249	10,532		
	Mar	32,474	36,984	1,112	2,548	5,482	36,726	11,317		
	Apr	29,872	35,843	1,483	2,458	5,026	36,079	10,699		
	Мау	30,110	35,674	1,517	2,808	5,856	40,321	11,026		
	Jun	28,938	36,268	1,650	3,333	6,224	46,118	10,709		
	Jul	30,154	36,564	1,873	4,113	6,622	50,555	11,222		
	Aug	30,699	37,437	1,647	4,007	6,910	54,149	11,441		
	Sep	29,973	35,934	1,349	3,258	6,766	44,702	11,194		
	Oct	31,355	36,659	1,215	2,829	6,486	39,058	11,424		
	Nov	31,654	35,165	1,416	2,625	6,446	36,215	11,206		
	Dec	35,740	36,639	1,316	2,853	7,071	38,670	11,943		
2033	Jan	35,217	36,179	1,458	2,700	6,885	37,847	11,763		
	Feb	31,765	33,194	1,171	2,368	5,691	34,207	10,507		
	Mar	32,715	36,999	1,113	2,527	5,505	36,731	11,308		
	Apr	30,037	35,461	1,478	2,442	5,044	36,072	10,689		
	Мау	30,321	36,058	1,519	2,806	5,878	40,345	11,015		
	Jun	29,093	36,267	1,650	3,361	6,244	46,116	10,699		
	Jul	30,366	36,052	1,872	4,124	6,643	50,534	11,210		
	Aug	30,916	37,966	1,648	3,992	6,932	54,158	11,431		
	Sep	30,162	35,844	1,348	3,245	6,784	44,701	11,184		
	Oct	31,607	36,720	1,213	2,778	6,497	39,064	11,412		
	Nov	31,891	35,194	1,416	2,580	6,470	36,215	11,196		
	Dec	36,020	35,873	1,314	2,831	7,097	38,657	11,931		
2034	Jan	35,500	36,194	1,459	2,695	6,914	37,849	11,754		
	Feb	32,035	33,194	1,171	2,368	5,711	34,207	10,497		
	Mar	32,981	36,924	1,111	2,527	5,525	36,724	11,296		
	Apr	30,232	35,024	1,477	2,442	5,062	36,068	10,678		
	Мау	30,564	36,588	1,520	2,807	5,898	40,364	11,005		
	Jun	29,275	36,177	1,649	3,360	6,263	46,105	10,688		
	Jul	30,602	36,098	1,872	4,123	6,661	50,534	11,200		
	Aug	31,155	37,983	1,649	3,993	6,953	54,177	11,421		
	Sep	30,506	35,462	1,351	3,247	6,887	44,703	11,181		
	Oct	31,825	37,101	1,212	2,777	6,481	38,932	11,381		
	Nov	32,148	35,195	1,416	2,582	6,490	36,216	11,185		
	Dec	36,319	35,361	1,314	2,832	7,117	38,646	11,919		

	NCPA Study Member Monthly Energy Forecasts: MWh (part one)										
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc			
2035	Jan	35,804	36,723	1,459	2,695	6,938	37,853	11,745			
	Feb	32,328	33,194	1,171	2,368	5,730	34,207	10,486			
	Mar	33,274	36,526	1,111	2,527	5,545	36,718	11,285			
	Apr	30,454	35,391	1,479	2,442	5,080	36,071	10,668			
	Мау	30,831	36,603	1,520	2,808	5,920	40,376	10,995			
	Jun	29,480	35,795	1,648	3,359	6,279	46,087	10,678			
	Jul	30,991	36,458	1,873	4,125	6,682	50,556	11,190			
	Aug	31,545	37,909	1,647	3,993	6,969	54,152	11,410			
	Sep	30,826	35,028	1,352	3,244	6,918	44,700	11,166			
	Oct	32,255	37,631	1,212	2,778	6,500	38,933	11,370			
	Nov	32,536	35,103	1,415	2,581	6,510	36,208	11,174			
	Dec	36,778	35,406	1,314	2,833	7,150	38,662	11,914			
2036	Jan	36,254	36,724	1,459	2,695	6,952	37,853	11,734			
	Feb	32,806	34,442	1,172	2,371	5,752	34,255	10,490			
	Mar	33,723	36,074	1,110	2,527	5,564	36,709	11,273			
	Apr	30,835	35,935	1,486	2,443	5,100	36,084	10,657			
	Мау	31,251	36,127	1,519	2,805	5,934	40,341	10,984			
	Jun	29,837	35,721	1,649	3,359	6,297	46,088	10,667			
	Jul	31,254	37,093	1,875	4,128	6,702	50,593	11,182			
	Aug	31,806	36,997	1,645	3,992	6,982	54,118	11,396			
	Sep	30,929	35,904	1,333	3,240	6,801	44,640	11,147			
	Oct	32,605	37,571	1,213	2,781	6,534	39,061	11,370			
	Nov	32,810	34,285	1,413	2,581	6,528	36,195	11,161			
	Dec	37,106	36,317	1,315	2,832	7,162	38,668	11,901			
2037	Jan	36,591	36,249	1,458	2,695	6,968	37,847	11,721			
	Feb	33,089	33,194	1,171	2,368	5,767	34,207	10,465			
	Mar	34,056	36,455	1,111	2,527	5,582	36,719	11,264			
	Apr	31,083	35,935	1,486	2,443	5,117	36,083	10,647			
	May	31,547	35,614	1,517	2,804	5,948	40,319	10,974			
	Jun	30,069	36,236	1,649	3,360	6,315	46,108	10,657			
	Jul	31,529	37,325	1,874	4,125	6,706	50,572	11,171			
	Aug	32,083	37,056	1,645	3,993	7,000	54,121	11,386			
	Sep	31,174	35,934	1,335	3,241	6,823	44,653	11,137			
	Oct	32,931	37,173	1,212	2,780	6,552	39,057	11,359			
	Nov	33,115	34,653	1,414	2,581	6,549	36,204	11,152			
	Dec	37,463	36,408	1,317	2,833	7,184	38,676	11,892			
2038	Jan	36,948	35,812	1,458	2,695	6,990	37,845	11,710			
	Feb	33,438	33,194	1,171	2,368	5,782	34,207	10,455			
	Mar	34,409	36,984	1,112	2,527	5,597	36,726	11,254			

	NCPA Study Member Monthly Energy Forecasts: MWh (part one)										
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc			
	Apr	31,344	35,843	1,483	2,443	5,130	36,079	10,636			
	Мау	31,861	35,674	1,517	2,804	5,964	40,321	10,963			
	Jun	30,313	36,268	1,650	3,361	6,329	46,118	10,646			
	Jul	31,818	36,564	1,873	4,125	6,730	50,555	11,159			
	Aug	32,375	37,437	1,647	3,993	7,018	54,149	11,377			
	Sep	31,450	35,934	1,349	3,246	6,871	44,702	11,132			
	Oct	33,322	36,659	1,215	2,780	6,601	39,058	11,361			
	Nov	33,441	35,165	1,416	2,582	6,569	36,215	11,143			
	Dec	37,842	36,639	1,316	2,833	7,197	38,670	11,880			
2039	Jan	37,329	36,179	1,458	2,695	6,997	37,847	11,700			
	Feb	33,812	33,194	1,171	2,368	5,794	34,207	10,444			
	Mar	34,786	36,999	1,113	2,528	5,609	36,731	11,244			
	Apr	31,622	35,461	1,478	2,442	5,139	36,072	10,626			
	Мау	32,194	36,058	1,519	2,806	5,977	40,345	10,953			
	Jun	30,571	36,267	1,650	3,360	6,340	46,116	10,636			
	Jul	32,027	36,052	1,872	4,124	6,741	50,534	11,147			
	Aug	32,585	37,966	1,648	3,993	7,031	54,158	11,368			
	Sep	31,626	35,844	1,348	3,246	6,879	44,701	11,121			
	Oct	33,577	36,720	1,213	2,780	6,602	39,064	11,349			
	Nov	33,680	35,194	1,416	2,582	6,580	36,215	11,132			
	Dec	38,132	35,873	1,314	2,832	7,209	38,657	11,868			
2040	Jan	37,623	36,194	1,459	2,695	7,017	37,849	11,690			
	Feb	34,157	34,534	1,173	2,371	5,810	34,256	10,448			
	Mar	35,080	36,526	1,111	2,527	5,620	36,718	11,232			
	Apr	31,831	35,391	1,479	2,442	5,149	36,071	10,615			
	Мау	32,450	36,603	1,520	2,808	5,992	40,376	10,942			
	Jun	30,751	35,795	1,648	3,359	6,348	46,087	10,625			
	Jul	32,222	36,458	1,873	4,125	6,753	50,556	11,137			
	Aug	32,776	37,909	1,647	3,993	7,041	54,152	11,357			
	Sep	31,893	35,028	1,352	3,244	6,988	44,700	11,114			
	Oct	33,757	37,631	1,212	2,778	6,576	38,933	11,318			
	Nov	33,903	35,103	1,415	2,581	6,590	36,208	11,121			
	Dec	38,419	35,406	1,314	2,833	7,232	38,662	11,861			
2041	Jan	37,924	36,724	1,459	2,695	7,026	37,853	11,681			
	Feb	34,430	33,194	1,171	2,368	5,816	34,207	10,423			
	Mar	35,361	36,013	1,109	2,527	5,631	36,707	11,220			
	Apr	32,086	35,903	1,484	2,443	5,161	36,081	10,605			
	Мау	32,710	36,527	1,520	2,807	5,999	40,358	10,932			
	Jun	30,997	35,357	1,648	3,359	6,358	46,082	10,615			

	NCPA Study Member Monthly Energy Forecasts: MWh (part one)										
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc			
	Jul	32,480	37,003	1,874	4,126	6,763	50,575	11,128			
	Aug	33,039	37,511	1,647	3,993	7,050	54,144	11,345			
	Sep	32,149	35,394	1,351	3,244	6,993	44,696	11,101			
	Oct	34,027	37,647	1,212	2,777	6,588	38,934	11,308			
	Nov	34,174	34,721	1,413	2,581	6,601	36,196	11,109			
	Dec	38,727	35,773	1,314	2,832	7,236	38,659	11,847			
2042	Jan	38,227	36,632	1,459	2,695	7,034	37,851	11,669			
	Feb	34,705	33,194	1,171	2,368	5,825	34,207	10,412			
	Mar	35,644	36,074	1,110	2,527	5,641	36,709	11,210			
	Apr	32,342	35,935	1,486	2,443	5,169	36,084	10,595			
	Мау	32,971	36,127	1,519	2,805	6,006	40,341	10,922			
	Jun	31,245	35,721	1,649	3,359	6,367	46,088	10,604			
	Jul	32,740	37,093	1,875	4,128	6,774	50,593	11,118			
	Aug	33,303	36,997	1,645	3,992	7,054	54,118	11,333			
	Sep	32,406	35,904	1,333	3,240	6,871	44,640	11,084			
	Oct	34,299	37,571	1,213	2,781	6,611	39,061	11,307			
	Nov	34,447	34,285	1,413	2,581	6,609	36,195	11,098			
	Dec	39,037	36,317	1,315	2,832	7,246	38,668	11,837			
2043	Jan	38,533	36,249	1,458	2,695	7,041	37,847	11,658			
	Feb	34,983	33,194	1,171	2,368	5,834	34,207	10,402			
	Mar	35,929	36,455	1,111	2,527	5,649	36,719	11,200			
	Apr	32,601	35,935	1,486	2,443	5,178	36,083	10,584			
	Мау	33,235	35,614	1,517	2,804	6,011	40,319	10,911			
	Jun	31,495	36,236	1,649	3,360	6,376	46,108	10,594			
	Jul	33,002	37,325	1,874	4,125	6,769	50,572	11,107			
	Aug	33,569	37,056	1,645	3,993	7,063	54,121	11,323			
	Sep	32,665	35,934	1,335	3,241	6,884	44,653	11,075			
	Oct	34,573	37,173	1,212	2,780	6,619	39,057	11,296			
	Nov	34,723	34,653	1,414	2,581	6,621	36,204	11,088			
	Dec	39,349	36,408	1,317	2,833	7,258	38,676	11,828			
2044	Jan	38,841	35,812	1,458	2,695	7,056	37,845	11,647			
	Feb	35,263	34,503	1,173	2,371	5,849	34,256	10,405			
	Mar	36,216	36,999	1,113	2,528	5,657	36,731	11,191			
	Apr	32,862	35,461	1,478	2,442	5,183	36,072	10,574			
	Мау	33,501	36,058	1,519	2,806	6,022	40,345	10,901			
	Jun	31,747	36,267	1,650	3,360	6,383	46,116	10,584			
	Jul	33,266	36,052	1,872	4,124	6,786	50,534	11,094			

### C. NCPA and Member Energy Forecasts

C1. NCPA and Member Monthly Energy Forecast Data

	NCPA Study Member Monthly Energy Forecasts: MWh (part one)										
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc			
	Aug	33,838	37,966	1,648	3,993	7,076	54,158	11,315			
	Sep	32,926	35,844	1,348	3,246	6,923	44,701	11,069			
	Oct	34,850	36,720	1,213	2,780	6,649	39,064	11,296			
	Nov	35,000	35,194	1,416	2,582	6,631	36,215	11,080			
	Dec	39,664	35,873	1,314	2,832	7,262	38,657	11,815			
2045	Jan	39,152	36,194	1,459	2,695	7,066	36,714	11,638			
	Feb	35,545	33,194	1,171	2,368	5,850	34,896	10,381			
	Mar	36,506	36,924	1,111	2,527	5,664	37,351	11,180			
	Apr	33,125	35,024	1,477	2,442	5,189	36,704	10,563			
	Мау	33,769	36,588	1,520	2,807	6,029	40,862	10,890			
	Jun	32,001	36,177	1,649	3,360	6,390	46,447	10,573			
	Jul	33,532	36,098	1,872	4,123	6,792	50,750	11,083			
	Aug	34,109	37,983	1,649	3,993	7,084	54,286	11,305			
	Sep	33,190	35,462	1,351	3,247	7,014	45,118	11,065			
	Oct	35,129	37,101	1,212	2,777	6,621	39,527	11,266			
	Nov	35,280	35,195	1,416	2,582	6,638	36,906	11,069			
	Dec	39,981	35,361	1,314	2,832	7,269	39,272	11,803			

Table 56. NCPA Member Monthly Energy Forecasts (part one)

Table 57: NCPA Member Monthly Energy Forecasts (part two) contains the *monthly* energy forecasts for the planning period for five NCPA members and the NCPA cumulative totals:

- City of Palo Alto Electric Utility
- Plumas-Sierra Rural Electric Cooperative
- Port of Oakland: Airport and Port of Oakland: Harbor
- City of Santa Clara Silicon Valley Power
- City of Ukiah Electric Utility
- NCPA totals

	NCPA Study Member Monthly Energy Forecasts: MWh (part two)											
			Plumas-	Port of	Oakland:	Silicon		NCPA				
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals				
2023	Jan	73,391	14,961	3,317	5,418	373,054	9,304	600,534				
	Feb	67,031	13,010	2,900	5,806	336,873	8,393	544,610				
	Mar	72,797	13,129	3,178	6,515	370,779	9,439	596,633				
	Apr	64,795	10,637	3,140	7,014	356,744	7,883	561,965				
	Мау	68,215	11,589	3,179	8,081	374,885	8,948	594,205				
	Jun	68,955	12,921	3,257	7,470	380,304	10,658	608,047				
	Jul	72,166	14,655	3,368	6,760	395,618	12,800	637,144				
	Aug	73,159	13,863	3,531	8,504	411,416	11,358	659,897				
	Sep	70,066	11,253	3,508	7,925	396,121	10,169	623,613				
	Oct	69,652	10,848	3,537	8,309	399,299	8,516	620,093				
	Nov	65,832	11,440	3,521	7,447	380,147	8,680	592,789				
	Dec	68,073	13,846	3,770	5,820	394,298	9,649	618,954				
2024	Jan	70,011	13,514	3,899	8,343	406,863	9,745	637,891				
	Feb	69,345	11,264	3,408	9,169	380,030	8,654	595,428				
	Mar	68,679	11,297	3,663	9,542	404,422	9,259	625,980				
	Apr	65,094	10,509	3,381	9,059	389,149	7,985	600,736				
	May	68,500	11,457	3,423	10,441	408,829	9,046	633,603				
	Jun	69,230	12,787	3,508	9,650	414,437	10,756	646,591				
	Jul	72,494	14,532	3,627	8,731	431,081	12,903	678,995				
	Aug	73,420	13,724	3,803	10,984	448,030	11,456	701,930				
	Sep	70,384	11,124	3,778	10,235	431,414	10,254	664,376				
	Oct	69,944	10,715	3,809	10,735	435,033	8,614	662,133				
	Nov	66,122	11,300	3,791	9,618	414,268	8,775	631,893				
	Dec	68,381	13,718	4,060	7,517	429,665	9,748	659,873				
2025	Jan	71,681	13,379	3,899	13,277	455,771	9,707	695,122				
	Feb	71,007	11,126	3,408	14,585	411,571	8,605	634,260				
	Mar	70,334	11,189	3,663	15,184	453,064	9,225	683,573				
	Apr	66,716	10,413	3,381	14,413	435,981	7,950	656,067				

NCPA Study Member Monthly Energy Forecasts: MWh (part two)											
			Plumas-	Port of (	Dakland:	Silicon		NCPA			
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals			
	Мау	70,140	11,368	3,423	16,615	457,950	9,010	691,713			
	Jun	70,899	12,711	3,508	15,355	464,017	10,721	705,604			
	Jul	74,225	14,471	3,627	13,895	482,622	12,868	739,264			
	Aug	75,126	13,664	3,803	17,481	501,406	11,420	764,502			
	Sep	71,405	11,074	3,778	16,290	482,839	10,191	724,652			
	Oct	71,668	10,694	3,809	17,084	487,002	8,584	724,062			
	Nov	67,816	11,279	3,791	15,305	463,830	8,740	690,163			
	Dec	70,106	13,710	4,060	11,962	481,051	9,714	719,869			
2026	Jan	72,775	13,376	4,010	13,281	498,574	9,670	740,638			
	Feb	72,095	11,126	3,506	14,585	450,224	8,570	675,922			
	Mar	71,416	11,193	3,768	15,185	495,637	9,192	729,677			
	Apr	67,728	10,413	3,478	14,415	476,969	7,915	700,028			
	Мау	71,168	11,367	3,521	16,615	500,940	8,974	737,180			
	Jun	71,968	12,712	3,608	15,353	507,400	10,687	752,500			
	Jul	75,300	14,463	3,731	13,896	527,718	12,832	787,502			
	Aug	76,222	13,667	3,912	17,482	548,102	11,385	814,310			
	Sep	72,498	11,077	3,886	16,291	527,829	10,158	772,691			
	Oct	72,757	10,693	3,918	17,083	532,473	8,548	772,250			
	Nov	68,937	11,282	3,900	15,304	507,196	8,706	737,007			
	Dec	71,245	13,713	4,176	11,961	526,013	9,680	768,145			
2027	Jan	72,950	13,376	4,456	16,151	537,133	9,634	783,246			
	Feb	72,241	11,126	3,895	17,739	485,043	8,534	715,416			
	Mar	71,532	11,193	4,186	18,469	533,980	9,157	773,349			
	Apr	67,764	10,410	3,864	17,534	513,879	7,878	741,217			
	Мау	71,237	11,367	3,912	20,204	539,672	8,939	780,961			
	Jun	72,047	12,713	4,009	18,676	546,541	10,653	796,370			
	Jul	75,369	14,461	4,146	16,901	568,414	12,795	831,641			
	Aug	76,342	13,671	4,346	21,262	590,289	11,350	861,949			
	Sep	72,754	11,087	4,318	19,815	568,468	10,160	818,343			
	Oct	72,972	10,709	4,353	20,772	573,518	8,513	817,993			
	Nov	69,122	11,286	4,333	18,614	546,322	8,673	781,360			
	Dec	71,442	13,709	4,639	14,548	566,584	9,643	812,947			
2028	Jan	72,858	13,377	4,567	17,229	584,792	9,599	833,116			
	Feb	72,095	11,144	3,993	18,930	546,245	8,512	779,953			
	Mar	71,333	11,192	4,291	19,701	581,369	9,120	822,534			
	Apr	67,485	10,408	3,961	18,705	559,493	7,840	787,671			

	NCPA Study Member Monthly Energy Forecasts: MWh (part two)										
			Plumas-	Port of (	Dakland:	Silicon		NCPA			
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals			
	Мау	71,012	11,369	4,010	21,550	587,548	8,905	831,671			
	Jun	71,767	12,712	4,109	19,921	594,951	10,616	846,325			
	Jul	75,099	14,459	4,249	18,026	618,750	12,758	883,004			
	Aug	76,117	13,677	4,455	22,678	642,495	11,315	916,618			
	Sep	72,898	11,077	4,426	21,133	618,754	10,127	870,465			
	Oct	72,673	10,682	4,462	22,157	624,290	8,473	870,739			
	Nov	69,027	11,287	4,441	19,857	594,713	8,638	831,637			
	Dec	71,329	13,704	4,755	15,520	616,763	9,606	863,406			
2029	Jan	73,303	13,383	5,569	18,660	624,150	9,567	876,304			
	Feb	72,455	11,126	4,869	20,498	563,622	8,464	799,044			
	Mar	71,607	11,191	5,233	21,342	620,503	9,084	864,486			
	Apr	67,651	10,408	4,830	20,264	597,161	7,806	828,620			
	May	71,224	11,369	4,890	23,351	627,086	8,871	874,533			
	Jun	71,945	12,710	5,011	21,581	634,937	10,580	889,103			
	Jul	75,355	14,463	5,182	19,527	660,328	12,725	928,074			
	Aug	76,344	13,670	5,433	24,566	685,625	11,280	963,149			
	Sep	73,109	11,074	5,397	22,890	660,297	10,085	914,833			
	Oct	72,978	10,682	5,441	24,007	666,231	8,438	916,707			
	Nov	69,409	11,283	5,416	21,511	634,684	8,600	874,836			
	Dec	71,764	13,715	5,799	16,814	658,212	9,582	908,137			
2030	Jan	73,537	13,382	6,683	39,826	662,893	9,531	937,702			
	Feb	72,608	11,126	5,843	43,756	598,608	8,428	858,540			
	Mar	71,679	11,188	6,280	45,552	659,027	9,046	927,924			
	Apr	67,629	10,411	5,796	43,251	634,242	7,773	890,277			
	Мау	71,209	11,369	5,868	49,845	666,005	8,835	940,959			
	Jun	71,935	12,710	6,013	46,071	674,285	10,545	953,621			
	Jul	75,389	14,466	6,218	41,684	701,241	12,691	992,906			
	Aug	76,361	13,669	6,519	52,442	728,053	11,244	1,034,117			
	Sep	73,144	11,080	6,477	48,865	701,166	10,044	983,197			
	Oct	73,085	10,682	6,529	51,251	707,498	8,403	986,579			
	Nov	69,634	11,278	6,500	45,916	674,016	8,563	939,585			
	Dec	72,006	13,707	6,959	35,887	698,998	9,536	969,799			
2031	Jan	73,854	13,379	6,962	40,190	702,209	9,494	977,971			
	Feb	72,849	11,126	6,086	44,150	634,112	8,393	895,078			
	Mar	71,845	11,189	6,541	45,963	698,122	9,012	968,080			

NCPA Study Member Monthly Energy Forecasts: MWh (part two)										
			Plumas-	Port of (	Dakland:	Silicon		NCPA		
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals		
	Apr	67,661	10,413	6,038	43,629	671,874	7,739	928,694		
	May	71,255	11,368	6,113	50,294	705,499	8,799	980,884		
	Jun	71,996	12,711	6,264	46,478	714,211	10,509	994,719		
	Jul	75,482	14,471	6,478	42,061	742,756	12,656	1,035,397		
	Aug	76,427	13,664	6,791	52,917	771,103	11,208	1,077,728		
	Sep	72,563	11,074	6,747	49,310	742,634	9,980	1,025,143		
	Oct	73,298	10,694	6,802	51,713	749,371	8,372	1,029,805		
	Nov	69,960	11,279	6,770	46,329	713,928	8,528	980,289		
	Dec	72,368	13,710	7,249	36,207	740,384	9,501	1,013,005		
2032	Jan	73,908	13,376	7,240	40,200	741,843	9,457	1,017,842		
	Feb	72,838	11,144	6,330	44,169	692,950	8,369	955,351		
	Mar	71,767	11,193	6,803	45,968	737,528	8,980	1,008,882		
	Apr	67,420	10,410	6,280	43,642	709,802	7,701	966,715		
	May	71,017	11,367	6,357	50,283	745,316	8,763	1,020,415		
	Jun	71,805	12,713	6,514	46,482	754,491	10,479	1,035,724		
	Jul	75,228	14,461	6,737	42,064	784,641	12,619	1,076,853		
	Aug	76,232	13,671	7,063	52,918	814,561	11,174	1,121,909		
	Sep	72,546	11,087	7,017	49,316	784,491	9,985	1,067,618		
	Oct	73,288	10,709	7,074	51,701	791,623	8,336	1,071,757		
	Nov	70,070	11,286	7,041	46,327	754,191	8,496	1,022,138		
	Dec	72,476	13,709	7,539	36,209	782,137	9,466	1,055,768		
2033	Jan	74,508	13,377	7,519	40,201	765,174	9,422	1,042,250		
	Feb	73,332	11,126	6,573	44,150	690,971	8,322	953,377		
	Mar	72,156	11,196	7,064	45,971	760,725	8,946	1,032,956		
	Apr	67,619	10,408	6,521	43,642	732,127	7,664	989,204		
	Мау	71,275	11,368	6,602	50,284	768,756	8,728	1,044,955		
	Jun	72,041	12,713	6,765	46,483	778,216	10,443	1,060,091		
	Jul	75,480	14,458	6,996	42,062	809,313	12,582	1,101,692		
	Aug	76,520	13,672	7,334	52,920	840,171	11,138	1,148,798		
	Sep	72,783	11,085	7,286	49,317	809,156	9,948	1,092,843		
	Oct	73,652	10,707	7,346	51,702	816,515	8,301	1,097,514		
	Nov	70,656	11,286	7,312	46,329	777,907	8,460	1,046,912		
	Dec	73,067	13,707	7,829	36,211	806,731	9,429	1,080,697		
2034	Jan	74,927	13,380	7,797	40,194	779,392	9,388	1,057,443		
	Feb	73,614	11,126	6,817	44,150	703,811	8,286	966,987		
	Mar	72,302	11,192	7,326	45,969	774,860	8,907	1,047,644		

NCPA Study Member Monthly Energy Forecasts: MWh (part two)										
			Plumas-	Port of (	Dakland:	Silicon		NCPA		
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals		
	Apr	67,598	10,408	6,763	43,644	745,731	7,629	1,002,756		
	May	71,290	11,369	6,846	50,282	783,041	8,694	1,060,268		
	Jun	72,024	12,712	7,015	46,482	792,676	10,404	1,074,830		
	Jul	75,497	14,459	7,255	42,060	824,352	12,547	1,117,260		
	Aug	76,555	13,677	7,606	52,914	855,783	11,103	1,164,969		
	Sep	73,189	11,077	7,556	49,310	824,192	9,917	1,108,578		
	Oct	73,756	10,682	7,618	51,700	831,687	8,261	1,113,413		
	Nov	71,056	11,287	7,583	46,332	792,362	8,425	1,062,277		
	Dec	73,462	13,704	8,119	36,211	821,722	9,394	1,096,120		
2035	Jan	75,424	13,383	8,354	40,190	793,139	9,354	1,073,061		
	Feb	73,962	11,126	7,304	44,150	716,225	8,251	980,502		
	Mar	72,500	11,191	7,849	45,967	788,528	8,871	1,061,892		
	Apr	67,610	10,408	7,246	43,645	758,885	7,594	1,016,973		
	Мау	71,334	11,369	7,335	50,294	796,853	8,659	1,074,897		
	Jun	72,031	12,710	7,517	46,484	806,658	10,368	1,089,094		
	Jul	75,565	14,463	7,773	42,059	838,892	12,513	1,133,140		
	Aug	76,592	13,670	8,149	52,912	870,877	11,068	1,180,893		
	Sep	73,223	11,074	8,096	49,301	838,729	9,875	1,123,532		
	Oct	73,983	10,682	8,162	51,708	846,357	8,226	1,129,797		
	Nov	71,522	11,283	8,125	46,333	806,338	8,388	1,077,516		
	Dec	73,978	13,715	8,699	36,214	836,215	9,369	1,112,247		
2036	Jan	75,621	13,382	9,468	40,185	797,811	9,318	1,079,456		
	Feb	74,111	11,143	8,277	44,169	720,443	8,227	987,658		
	Mar	72,601	11,189	8,896	45,963	793,172	8,834	1,067,635		
	Apr	67,650	10,413	8,212	43,629	763,355	7,562	1,023,361		
	Мау	71,436	11,368	8,313	50,294	801,546	8,622	1,080,540		
	Jun	72,246	12,711	8,519	46,478	811,409	10,333	1,095,314		
	Jul	75,905	14,471	8,809	42,061	843,833	12,480	1,140,386		
	Aug	76,971	13,664	9,236	52,917	876,007	11,031	1,186,762		
	Sep	73,140	11,074	9,176	49,310	843,669	9,804	1,130,167		
	Oct	74,828	10,694	9,250	51,713	851,342	8,195	1,137,157		
	Nov	72,730	11,279	9,208	46,329	811,087	8,350	1,083,956		
	Dec	75,308	13,710	9,859	36,207	841,141	9,323	1,120,849		
2037	Jan	76,727	13,376	10,025	40,200	802,530	9,280	1,085,667		
	Feb	75,100	11,126	8,764	44,150	724,704	8,180	992,285		
	Mar	73,473	11,193	9,419	45,965	797,863	8,801	1,074,428		

NCPA Study Member Monthly Energy Forecasts: MWh (part two)											
			Plumas-	Port of	Dakland:	Silicon		NCPA			
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals			
	Apr	68,308	10,413	8,695	43,635	767,869	7,527	1,029,241			
	Мау	72,063	11,367	8,802	50,294	806,287	8,586	1,086,122			
	Jun	72,894	12,712	9,020	46,474	816,208	10,300	1,102,002			
	Jul	76,507	14,463	9,328	42,065	848,824	12,443	1,146,932			
	Aug	77,577	13,667	9,779	52,918	881,188	10,996	1,193,409			
	Sep	73,791	11,077	9,715	49,314	848,659	9,770	1,136,623			
	Oct	75,673	10,693	9,794	51,709	856,377	8,159	1,143,469			
	Nov	73,920	11,282	9,749	46,327	815,884	8,316	1,091,146			
	Dec	76,491	13,713	10,439	36,206	846,115	9,290	1,128,027			
2038	Jan	77,696	13,376	10,582	40,199	807,295	9,245	1,091,851			
	Feb	75,910	11,126	9,251	44,150	729,008	8,145	998,205			
	Mar	74,124	11,193	9,943	45,968	802,601	8,766	1,081,204			
	Apr	68,751	10,410	9,178	43,642	772,429	7,490	1,034,858			
	Мау	72,482	11,367	9,291	50,283	811,075	8,551	1,092,153			
	Jun	73,303	12,713	9,521	46,482	821,055	10,270	1,108,029			
	Jul	76,860	14,461	9,846	42,064	853,865	12,407	1,152,327			
	Aug	77,959	13,671	10,322	52,918	886,421	10,961	1,200,248			
	Sep	74,354	11,087	10,255	49,316	853,699	9,776	1,143,171			
	Oct	76,384	10,709	10,338	51,701	861,462	8,124	1,149,714			
	Nov	74,933	11,286	10,291	46,327	820,729	8,283	1,098,380			
	Dec	77,481	13,709	11,019	36,209	851,140	9,253	1,135,188			
2039	Jan	78,762	13,377	11,139	40,201	812,109	9,209	1,099,002			
	Feb	76,794	11,126	9,738	44,150	733,355	8,109	1,004,262			
	Mar	74,826	11,196	10,466	45,971	807,387	8,732	1,087,588			
	Apr	69,225	10,408	9,661	43,642	777,035	7,453	1,040,264			
	Мау	72,949	11,368	9,780	50,284	815,911	8,516	1,098,660			
	Jun	73,729	12,713	10,022	46,483	825,951	10,234	1,114,072			
	Jul	77,248	14,458	10,364	42,062	858,956	12,370	1,157,955			
	Aug	78,362	13,672	10,865	52,920	891,707	10,926	1,207,201			
	Sep	74,766	11,085	10,795	49,317	858,789	9,739	1,149,256			
	Oct	77,029	10,707	10,882	51,702	866,599	8,089	1,156,313			
	Nov	76,013	11,286	10,833	46,329	825,623	8,248	1,105,131			
	Dec	78,531	13,707	11,599	36,211	856,215	9,217	1,141,365			
2040	Jan	79,632	13,380	11,163	40,293	816,972	9,175	1,105,142			
	Feb	77,457	11,143	10,094	45,829	737,746	8,086	1,013,104			
	Mar	75,282	11,191	10,448	45,989	812,222	8,693	1,092,639			

NCPA Study Member Monthly Energy Forecasts: MWh (part two)									
			Plumas-	Port of (	Dakland:	Silicon		NCPA	
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals	
	Apr	69,479	10,408	9,632	43,779	781,689	7,418	1,045,383	
	Мау	73,182	11,369	9,844	49,860	820,797	8,482	1,104,225	
	Jun	73,879	12,710	10,013	46,556	830,897	10,191	1,118,859	
	Jul	77,420	14,463	10,358	42,025	864,100	12,336	1,163,826	
	Aug	78,494	13,670	10,869	53,449	897,046	10,891	1,213,294	
	Sep	75,342	11,074	10,760	48,765	863,932	9,700	1,153,892	
	Oct	77,412	10,682	10,931	52,220	871,789	8,050	1,163,289	
	Nov	76,898	11,283	10,809	47,119	830,568	8,211	1,111,809	
	Dec	79,408	13,715	11,518	36,464	861,343	9,191	1,147,366	
2041	Jan	81,010	13,382	11,198	40,119	821,886	9,141	1,112,098	
	Feb	78,613	11,126	9,738	44,150	742,183	8,038	1,015,457	
	Mar	76,216	11,188	10,420	45,647	817,107	8,655	1,097,801	
	Apr	70,180	10,411	9,664	43,650	786,390	7,385	1,051,443	
	Мау	73,846	11,369	9,836	49,881	825,733	8,446	1,109,964	
	Jun	74,531	12,710	9,984	46,433	835,894	10,156	1,124,124	
	Jul	78,081	14,466	10,391	42,048	869,297	12,302	1,170,534	
	Aug	79,124	13,669	10,854	53,531	902,441	10,855	1,219,203	
	Sep	76,031	11,080	10,749	48,640	869,128	9,660	1,160,216	
	Oct	78,356	10,682	10,949	52,570	877,032	8,014	1,170,096	
	Nov	78,273	11,278	10,794	46,778	835,562	8,173	1,117,653	
	Dec	80,777	13,707	11,529	36,244	866,523	9,146	1,154,314	
2042	Jan	82,233	13,379	11,191	40,003	826,850	9,104	1,118,327	
	Feb	79,632	11,126	9,738	44,150	746,666	8,003	1,021,197	
	Mar	77,031	11,189	10,405	45,494	822,042	8,621	1,103,697	
	Apr	70,731	10,413	9,682	43,577	791,139	7,351	1,056,947	
	Мау	74,355	11,368	9,813	50,062	830,721	8,410	1,115,420	
	Jun	75,037	12,711	9,977	46,049	840,943	10,121	1,129,871	
	Jul	78,574	14,471	10,412	41,955	874,547	12,268	1,176,548	
	Aug	79,572	13,664	10,825	53,497	907,892	10,819	1,224,711	
	Sep	75,897	11,074	10,776	48,696	874,377	9,592	1,165,890	
	Oct	79,185	10,694	10,945	52,649	882,329	7,983	1,176,628	
	Nov	79,541	11,279	10,770	46,502	840,609	8,138	1,123,467	
	Dec	82,045	13,710	11,565	36,045	871,757	9,111	1,161,485	
2043	Jan	83,441	13,376	11,167	39,853	831,866	9,068	1,124,252	
	Feb	80,635	11,126	9,738	44,150	751,195	7,968	1,026,971	
	Mar	77,830	11,193	10,420	45,479	827,029	8,588	1,110,129	

#### C. NCPA and Member Energy Forecasts

C1. NCPA and Member Monthly Energy Forecast Data

NCPA Study Member Monthly Energy Forecasts: MWh (part two)										
			Plumas-	Port of (	Dakland:	Silicon		NCPA		
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals		
	Apr	71,238	10,413	9,689	43,640	795,939	7,315	1,062,544		
	May	74,818	11,367	9,779	50,287	835,760	8,374	1,120,796		
	Jun	75,517	12,712	10,010	45,984	846,044	10,092	1,136,177		
	Jul	78,995	14,463	10,405	42,189	879,853	12,231	1,182,910		
	Aug	79,992	13,667	10,813	53,074	913,400	10,784	1,230,500		
	Sep	76,377	11,077	10,808	48,747	879,682	9,558	1,172,036		
	Oct	79,954	10,693	10,927	52,453	887,682	7,947	1,182,366		
	Nov	80,813	11,282	10,770	46,491	845,709	8,104	1,130,453		
	Dec	83,300	13,713	11,600	36,088	877,045	9,077	1,168,492		
2044	Jan	84,477	13,376	11,138	39,866	836,935	9,032	1,130,178		
	Feb	81,445	11,143	10,075	45,662	755,773	7,944	1,035,862		
	Mar	78,413	11,196	10,466	45,971	832,068	8,555	1,117,104		
	Apr	71,521	10,408	9,661	43,642	800,789	7,276	1,067,369		
	Мау	75,084	11,368	9,780	50,284	840,853	8,340	1,126,861		
	Jun	75,752	12,713	10,022	46,483	851,200	10,060	1,142,337		
	Jul	79,145	14,458	10,364	42,062	885,214	12,194	1,187,165		
	Aug	80,195	13,672	10,865	52,920	918,965	10,749	1,237,360		
	Sep	76,754	11,085	10,795	49,317	885,042	9,565	1,178,615		
	Oct	80,552	10,707	10,882	51,702	893,091	7,912	1,187,418		
	Nov	81,904	11,286	10,833	46,329	850,862	8,070	1,137,402		
	Dec	84,350	13,707	11,599	36,211	882,389	9,040	1,174,713		
2045	Jan	86,028	13,380	11,163	40,293	842,058	8,997	1,136,837		
	Feb	82,729	11,126	9,738	44,150	760,399	7,897	1,039,444		
	Mar	79,430	11,192	10,458	46,051	837,161	8,516	1,124,071		
	Apr	72,228	10,408	9,634	43,790	805,690	7,241	1,073,515		
	Мау	75,784	11,369	9,821	50,049	846,000	8,305	1,133,793		
	Jun	76,405	12,712	10,023	46,554	856,410	10,020	1,148,721		
	Jul	79,798	14,459	10,350	41,961	890,632	12,159	1,193,609		
	Aug	80,851	13,677	10,879	53,134	924,590	10,717	1,244,257		
	Sep	77,816	11,077	10,778	49,143	890,459	9,532	1,185,252		
	Oct	81,496	10,682	10,896	51,836	898,557	7,873	1,194,973		
	Nov	83,457	11,287	10,824	46,820	856,070	8,035	1,145,579		
	Dec	85,886	13,704	11,556	36,185	887,790	9,004	1,181,957		

Table 57. NCPA Member Monthly Energy Forecasts (part two)

### C2. NCPA AND MEMBER YEARLY ENERGY FORECAST DATA

Table 58: NCPA Member Yearly Energy Forecasts (part one) contains the *yearly* energy forecasts for the planning period for seven NCPA members: City of Alameda Municipal Power, Bay Area Rapid Transit District, City of Biggs Electric Utility, City of Gridley Electric Department, City of Healdsburg Electric Department, City of Lodi Electric Utility, and City of Lompoc Electric Department.

NCPA Study Member Yearly Energy Forecasts: MWh (part one)									
Year	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc		
2023	353,292	391,233	16,298	34,900	73,496	455,784	136,582		
2024	354,330	408,162	17,204	35,568	72,165	470,392	135,474		
2025	357,067	419,430	17,186	35,207	72,439	476,550	135,336		
2026	362,829	432,231	17,190	34,985	73,101	480,854	135,212		
2027	366,840	432,172	17,206	35,182	73,858	486,631	135,104		
2028	369,259	432,610	17,201	35,487	74,231	491,792	134,976		
2029	370,988	431,768	17,202	35,704	74,587	494,523	134,838		
2030	372,858	431,765	17,202	35,321	74,876	494,492	134,702		
2031	374,932	431,849	17,186	35,524	75,055	494,556	134,579		
2032	377,475	433,420	17,208	35,882	75,413	494,689	134,487		
2033	380,109	431,807	17,199	35,755	75,670	494,645	134,345		
2034	383,141	431,300	17,199	35,752	75,962	494,525	134,205		
2035	387,100	431,768	17,202	35,754	76,221	494,523	134,080		
2036	391,213	433,188	17,188	35,756	76,309	494,606	133,962		
2037	394,729	432,231	17,190	35,750	76,512	494,565	133,824		
2038	398,563	432,172	17,206	35,755	76,777	494,645	133,716		
2039	401,943	431,807	17,199	35,755	76,900	494,645	133,587		
2040	404,862	432,580	17,203	35,757	77,117	494,569	133,461		
2041	408,101	431,765	17,202	35,752	77,220	494,492	133,314		
2042	411,366	431,849	17,186	35,752	77,207	494,556	133,190		
2043	414,657	432,231	17,190	35,750	77,303	494,565	133,066		
2044	417,974	432,749	17,201	35,758	77,476	494,692	132,970		
2045	421,318	431,300	17,199	35,753	77,606	498,834	132,817		

Table 58. NCPA Member Yearly Energy Forecasts (part one)

C2. NCPA and Member Yearly Energy Forecast Data

Table 59: NCPA Member Yearly Energy Forecasts (part two) contains the *yearly* energy forecasts for the planning period for five NCPA members—City of Palo Alto Electric Utility, Plumas-Sierra Rural Electric Cooperative, Port of Oakland: Airport and Port of Oakland: Harbor, City of Santa Clara Silicon Valley Power, and City of Ukiah Electric Utility—and the NCPA totals.

NCPA Study Member Yearly Energy Forecasts: MWh (part two)										
		Plumas-	Port of Oakland:							
Year	Palo Alto	Sierra REC	Airport	Harbor	Silicon Valley	Ukiah	NCPA Totals			
2023	834,130	152,150	40,207	85,069	4,569,539	115,796	7,260,499			
2024	831,603	145,941	44,150	114,025	4,993,220	117,195	7,741,453			
2025	851,124	145,078	44,150	181,447	5,577,104	116,737	8,430,880			
2026	864,109	145,082	45,414	181,452	6,099,075	116,316	8,989,876			
2027	865,772	145,109	50,457	220,685	6,569,843	115,930	9,516,816			
2028	863,693	145,086	51,719	235,406	7,170,164	115,511	10,139,163			
2029	867,144	145,075	63,070	255,010	7,632,836	115,081	10,639,855			
2030	868,217	145,070	75,685	544,347	8,106,032	114,638	11,417,235			
2031	869,559	145,078	78,841	549,241	8,586,201	114,191	11,908,823			
2032	868,594	145,126	81,995	549,279	9,093,574	113,824	12,422,998			
2033	873,089	145,102	85,147	549,272	9,355,762	113,384	12,693,319			
2034	875,269	145,071	88,301	549,249	9,529,610	112,955	12,874,573			
2035	877,726	145,075	94,609	549,257	9,697,695	112,536	13,055,581			
2036	882,547	145,098	107,223	549,254	9,754,817	112,081	13,135,278			
2037	892,525	145,082	113,529	549,256	9,812,508	111,648	13,211,386			
2038	900,237	145,109	119,837	549,258	9,870,778	111,271	13,287,362			
2039	908,235	145,102	126,144	549,272	9,929,639	110,844	13,363,111			
2040	913,885	145,089	126,439	552,348	9,989,101	110,423	13,434,874			
2041	925,038	145,070	126,106	549,690	10,049,175	109,972	13,504,938			
2042	933,833	145,078	126,098	548,680	10,109,872	109,521	13,576,230			
2043	942,910	145,082	126,128	548,435	10,171,203	109,105	13,649,668			
2044	949,593	145,118	126,481	550,449	10,233,181	108,737	13,724,423			
2045	961,910	145,071	126,120	549,965	10,295,818	108,297	13,804,053			

Table 59.	NCPA Member	Yearly E	Energy	Forecasts	(part tw	o)
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## C3. MEMBER ENERGY FORECAST GRAPHS

Appendix J contains graphs of the annual energy forecasts for each member for the planning period.

Graphs for the City of Alameda, Bay Area Rapid Transit, City of Biggs, City of Gridley, City of Healdsburg, City of Lodi, and City of Lompoc were derived from Table 58: NCPA Member Yearly Energy Forecasts (part one) on page C-18.

Graphs for City of Palo Alto, Plumas-Sierra REC, Port of Oakland Airport, Port of Oakland Harbor, Silicon Valley Powerm, and City of Ukiah were derived from Table 59: NCPA Member Yearly Energy Forecasts (part two) on page C-19.

#### City of Alameda

Figure 75 depicts the energy forecasts for the City of Alameda Municipal Power over the planning period. The City of Alameda's energy is forecast to increase by 5.54 percent by 2030 and increase by 19.25 percent over the entire planning period.



Figure 75. City of Alameda Energy Forecasts
#### Bay Area Rapid Transit District

Figure 76 depicts the energy forecasts for the Bay Area Rapid Transit over the planning period. BART's energy is forecast to increase by 10.36 percent by 2030 and increase by 10.24 percent over the entire planning period.



Figure 76. Bay Area Rapid Transit Energy Forecasts

# City of Biggs

Figure 77 depicts the energy forecasts for the City of Biggs Electric Utility over the planning period. The City of Biggs's energy is forecast to increase by 5.54 percent by 2030, and increase by 5.53 percent over the entire planning period



Figure 77. City of Biggs Energy Forecasts

# City of Gridley

Figure 78 depicts the energy forecasts for the City of Gridley Electric Department over the planning period. The City of Gridley's energy is forecast to increase by 1.21 percent by 2030 and increase by 2.44 percent over the entire planning period.



Figure 78. City of Gridley Energy Forecasts

#### City of Healdsburg

Figure 79 depicts the energy forecasts for the City of Healdsburg Electric Department over the planning period. The City of Healdsburg's energy is forecast to increase by 1.88 percent by 2030 and increase by 5.59 percent over the entire planning period.



Figure 79. City of Healdsburg Energy Forecasts

# City of Lodi

Figure 80 depicts the energy forecasts for the City of Lodi Electric Utility over the planning period. The City of Lodi's energy is forecast to increase by 8.49 percent by 2030 and increase by 8.54 percent over the entire planning period.



Figure 80. City of Lodi Energy Forecasts

#### City of Lompoc

Figure 81 depicts the energy forecasts for the City of Lompoc Electric Department over the planning period. The City of Lompoc's energy is forecast to *decrease* by 1.38 percent by 2030, and *decrease* by 2.76 percent over the entire planning period



Figure 81. City of Lompoc Energy Forecasts

#### City of Palo Alto

Figure 82 depicts the energy forecasts for the City of Palo Alto Electric Utility over the planning period. The City of Palo Alto's energy is forecast to increase by 4.09 percent by 2030 and increase by 15.32 percent over the entire planning period.



Figure 82. City of Palo Alto Energy Forecasts

#### Plumas-Sierra REC

Figure 83 depicts the energy forecasts for the Plumas-Sierra Rural Electric Cooperative over the planning period. The Plumas-Sierra REC's energy is forecast to *decrease* by 4.65 percent by 2030, and *decrease* by that same percent over the entire planning period



Figure 83. Plumas-Sierra Rural Electric Cooperative Energy Forecasts

# Port of Oakland: Airport

Figure 84 depicts the energy forecasts for the Port of Oakland Airport over the planning period. The Port of Oakland Airport's energy is forecast to increase by 88.24 percent by 2030 and increase by 213.68 percent over the entire planning period.



Figure 84. Port of Oakland: Airport Energy Forecasts

#### Port of Oakland: Harbor

Figure 85 depicts the energy forecasts for the Port of Oakland Harbor over the planning period. The Port of Oakland Harbor's energy is forecast to increase by 539.89 percent by 2030 and increase by 546.50 percent over the entire planning period.



Figure 85. Port of Oakland: Harbor Energy Forecasts

#### Silicon Valley Power

Figure 86 depicts th1e energy forecasts for Silicon Valley Power over the planning period. Silicon Valley Power's energy is forecast to increase by 77.39 percent by 2030 and increase by 125.31 percent over the entire planning period.



Figure 86. Silicon Valley Power Energy Forecasts

#### City of Ukiah

Figure 87 depicts the energy forecasts for the City of Ukiah Electric Utility over the planning period. The City of Ukiah's energy is forecast to *decrease* by 1.00 percent by 2030, and *decrease* by 6.48 percent over the entire planning period



Figure 87. City of Ukiah Energy Forecasts

Appendix D comprises five sets of peak demand forecast data and related graphs about NCPA and member resources:

- D1. NCPA and Member Monthly Peak Demand Forecast Data (page D-2)
- D2. NCPA and Member Yearly Peak Demand Forecast Data (page D-18)
- D3. Member Peak Demand Forecast Graphs (page D-20)
- D4. NCPA and Member Seasonal Maximum Hourly Peak Demand Forecast Data (page D-27)
- D5. Member Seasonal Maximum Hourly Peak Demand Forecast Graphs (page D-35)

# D1. NCPA AND MEMBER MONTHLY PEAK DEMAND FORECAST DATA

Table 60: NCPA Member Monthly Peak Demand Forecasts (part one) contains the *monthly* peak demand forecasts for the planning period for seven NCPA members:

- City of Alameda Municipal Power
- Bay Area Rapid Transit District
- City of Biggs Electric Utility
- City of Gridley Electric Department
- City of Healdsburg Electric Department
- City of Lodi Electric Utility
- City of Lompoc Electric Department

NCPA Study Member Monthly Peak Demand Forecasts: MW (part one)											
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc			
2023	Jan	58.80	66.11	3.02	4.58	12.04	60.46	21.16			
	Feb	61.10	71.27	1.61	4.60	12.09	61.90	21.35			
	Mar	60.79	69.60	3.02	4.50	12.20	59.75	21.01			
	Apr	51.75	65.50	3.11	5.35	11.18	70.47	20.07			
	May	51.10	70.00	3.77	7.46	16.01	94.26	19.80			
	Jun	54.59	71.00	4.37	9.49	17.59	111.30	19.27			
	Jul	47.62	71.30	4.74	10.18	16.97	132.17	19.52			
	Aug	54.62	71.80	4.66	9.82	22.49	135.72	21.56			
	Sep	55.14	71.10	4.83	8.80	21.82	111.95	20.83			
	Oct	53.77	70.60	3.30	5.67	15.01	84.42	21.48			
	Nov	56.96	69.60	3.12	4.84	13.48	62.10	21.83			
	Dec	59.90	69.50	3.21	5.25	13.95	65.08	22.77			
2024	Jan	61.86	71.70	3.26	4.95	13.59	62.02	22.01			
	Feb	61.78	71.60	3.18	4.72	11.25	62.71	21.42			
	Mar	54.13	71.40	3.02	4.63	9.98	62.43	20.99			
	Apr	52.24	71.70	3.11	5.52	11.14	73.14	20.04			
	May	51.62	71.80	3.77	7.55	15.98	96.92	19.77			
	Jun	55.06	72.80	4.37	9.54	17.78	113.95	19.25			
	Jul	48.63	73.10	4.74	10.21	16.96	134.87	19.50			
	Aug	55.64	73.60	4.66	9.95	22.48	138.34	21.53			
	Sep	54.52	72.90	4.83	8.80	22.40	116.44	21.14			
	Oct	54.68	72.40	3.30	5.69	15.00	87.02	21.45			
	Nov	57.85	71.40	3.12	4.91	13.48	64.68	21.80			
	Dec	60.81	71.20	3.21	5.36	13.95	67.66	22.75			
2025	Jan	62.44	73.50	3.26	5.03	13.70	63.09	21.98			
	Feb	62.30	73.40	3.18	4.69	11.38	63.78	21.40			
	Mar	54.48	73.10	3.02	4.54	10.03	63.49	20.96			

	NCPA Study Member Monthly Peak Demand Forecasts: MW (part one)											
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc				
	Apr	52.45	73.50	3.11	5.45	11.16	74.19	20.02				
	May	51.89	73.60	3.77	7.55	16.00	97.96	19.75				
	Jun	55.47	74.60	4.37	9.67	17.77	114.99	19.22				
	Jul	48.99	74.90	4.74	10.26	16.99	135.93	19.47				
	Aug	56.04	75.40	4.66	9.72	22.51	139.37	21.50				
	Sep	58.52	74.70	4.83	8.79	22.00	117.47	21.23				
	Oct	55.21	74.20	3.30	5.59	14.57	88.04	21.43				
	Nov	58.48	73.20	3.12	4.77	13.61	65.70	21.78				
	Dec	61.59	73.00	3.21	5.18	14.07	68.67	22.72				
2026	Jan	63.56	75.30	3.26	4.90	13.83	63.68	21.96				
	Feb	63.42	75.10	3.18	4.66	11.51	64.39	21.37				
	Mar	55.45	74.90	3.02	4.56	10.02	64.13	20.94				
	Apr	53.35	75.20	3.11	5.50	11.21	74.86	19.99				
	Мау	52.86	75.40	3.77	7.53	16.06	98.66	19.72				
	Jun	56.55	76.40	4.37	9.53	17.58	115.70	19.20				
	Jul	49.76	76.70	4.74	10.13	17.03	136.69	19.44				
	Aug	56.85	77.20	4.66	9.73	22.55	140.13	21.48				
	Sep	59.30	76.50	4.83	8.82	22.04	118.26	21.20				
	Oct	55.99	76.00	3.30	5.65	14.88	88.86	21.40				
	Nov	59.27	74.90	3.12	4.75	13.73	66.54	21.75				
	Dec	62.43	74.80	3.21	5.11	14.20	69.53	22.69				
2027	Jan	64.42	75.30	3.26	4.79	13.96	64.82	21.93				
	Feb	64.28	75.10	3.18	4.64	11.65	65.50	21.34				
	Mar	56.21	74.90	3.02	4.57	10.06	65.21	20.91				
	Apr	54.04	75.20	3.11	5.45	11.27	75.90	19.96				
	May	53.62	75.40	3.77	7.60	16.12	99.67	19.69				
	Jun	57.41	76.40	4.37	9.51	17.50	116.69	19.17				
	Jul	50.24	76.70	4.74	10.12	17.07	137.67	19.42				
	Aug	57.33	77.20	4.66	9.74	22.59	141.05	21.45				
	Sep	59.72	76.50	4.83	8.82	22.20	119.14	21.18				
	Oct	56.17	76.00	3.30	5.79	14.98	82.30	21.31				
	Nov	59.70	74.90	3.12	4.89	13.86	67.36	21.73				
	Dec	62.89	74.80	3.21	5.25	14.33	70.33	22.67				
2028	Jan	64.88	75.30	3.26	4.92	13.98	65.71	21.90				
	Feb	64.76	75.10	3.18	4.75	11.67	66.39	21.32				
	Mar	56.63	74.90	3.02	4.67	10.09	66.10	20.88				
	Apr	54.41	75.20	3.11	5.60	11.30	76.79	19.94				
	May	54.07	75.40	3.77	7.58	16.15	100.56	19.67				
	Jun	57.94	76.40	4.37	9.37	17.70	117.57	19.14				

	NCPA Study Member Monthly Peak Demand Forecasts: MW (part one)											
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc				
	Jul	50.55	76.70	4.74	10.07	17.08	138.58	19.39				
	Aug	57.63	77.20	4.66	9.76	22.61	141.94	21.42				
	Sep	57.79	76.50	4.83	8.81	21.90	120.03	20.73				
	Oct	56.75	76.00	3.30	5.90	15.29	90.60	21.35				
	Nov	59.97	74.90	3.12	4.94	13.88	68.25	21.70				
	Dec	63.19	74.80	3.21	5.30	14.36	71.21	22.64				
2029	Jan	65.18	75.30	3.26	4.92	14.00	66.18	21.88				
	Feb	65.09	75.10	3.18	4.77	11.71	66.86	21.29				
	Mar	56.91	74.90	3.02	4.67	10.15	66.57	20.86				
	Apr	54.62	75.20	3.11	5.58	11.33	77.26	19.91				
	Мау	54.36	75.40	3.77	7.63	16.18	101.03	19.64				
	Jun	58.27	76.40	4.37	9.52	17.91	118.04	19.12				
	Jul	50.83	76.70	4.74	10.14	17.10	139.06	19.37				
	Aug	57.91	77.20	4.66	9.86	22.63	142.41	21.40				
	Sep	56.44	76.50	4.83	8.86	22.49	120.50	20.93				
	Oct	57.06	76.00	3.30	5.87	15.31	91.07	21.32				
	Nov	60.24	74.90	3.12	4.90	13.91	68.72	21.67				
	Dec	63.48	74.80	3.21	5.33	14.37	71.68	22.62				
2030	Jan	65.49	75.30	3.26	4.92	14.02	66.18	21.85				
	Feb	65.41	75.10	3.18	4.75	11.74	66.86	21.26				
	Mar	57.19	74.90	3.02	4.64	10.24	66.57	20.83				
	Apr	54.84	75.20	3.11	5.60	11.36	77.26	19.89				
	Мау	54.65	75.40	3.77	7.66	16.21	101.03	19.61				
	Jun	58.55	76.40	4.37	9.54	17.94	118.04	19.09				
	Jul	51.08	76.70	4.74	10.13	17.11	139.06	19.34				
	Aug	58.20	77.20	4.66	9.61	22.64	142.41	21.37				
	Sep	56.69	76.50	4.83	8.77	22.51	120.50	21.02				
	Oct	57.41	76.00	3.30	5.84	15.33	91.07	21.30				
	Nov	60.57	74.90	3.12	4.83	13.93	68.72	21.65				
	Dec	63.86	74.80	3.21	5.14	14.40	71.68	22.59				
2031	Jan	65.89	75.30	3.26	4.76	14.05	66.18	21.83				
	Feb	65.83	75.10	3.18	4.71	11.77	66.86	21.24				
	Mar	57.53	74.90	3.02	4.61	10.25	66.57	20.80				
	Apr	55.09	75.20	3.11	5.56	11.39	77.26	19.86				
	Мау	54.96	75.40	3.77	7.61	16.24	101.03	19.59				
	Jun	58.80	76.40	4.37	9.52	17.91	118.04	19.07				
	Jul	51.38	76.70	4.74	10.09	17.12	139.06	19.31				
	Aug	58.54	77.20	4.66	9.86	22.66	142.41	21.35				
	Sep	60.76	76.50	4.83	8.89	22.12	120.50	21.07				

	NCPA Study Member Monthly Peak Demand Forecasts: MW (part one)											
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc				
	Oct	57.81	76.00	3.30	5.97	14.79	91.07	21.27				
	Nov	60.94	74.90	3.12	4.91	13.96	68.72	21.62				
	Dec	64.27	74.80	3.21	5.26	14.42	71.68	22.56				
2032	Jan	66.32	75.30	3.26	4.89	14.07	66.18	21.80				
	Feb	66.29	75.10	3.18	4.77	11.78	66.86	21.21				
	Mar	57.91	74.90	3.02	4.74	10.16	66.57	20.78				
	Apr	55.38	75.20	3.11	5.66	11.42	77.26	19.83				
	May	55.32	75.40	3.77	7.66	16.27	101.03	19.56				
	Jun	59.10	76.40	4.37	9.44	17.57	118.04	19.04				
	Jul	51.69	76.70	4.74	10.08	17.14	139.06	19.29				
	Aug	58.90	77.20	4.66	9.84	22.67	142.41	21.32				
	Sep	61.10	76.50	4.83	8.87	22.25	120.50	21.05				
	Oct	57.96	76.00	3.30	6.05	15.09	83.74	21.18				
	Nov	61.37	74.90	3.12	5.03	13.98	68.72	21.59				
	Dec	64.75	74.80	3.21	5.32	14.44	71.68	22.54				
2033	Jan	66.83	75.30	3.26	4.92	14.09	66.18	21.77				
	Feb	66.82	75.10	3.18	4.77	11.82	66.86	21.19				
	Mar	58.34	74.90	3.02	4.70	10.13	66.57	20.75				
	Apr	55.69	75.20	3.11	5.63	11.44	77.26	19.81				
	May	55.71	75.40	3.77	7.65	16.30	101.03	19.54				
	Jun	59.42	76.40	4.37	9.48	17.61	118.04	19.01				
	Jul	52.06	76.70	4.74	10.10	17.15	139.06	19.26				
	Aug	59.32	77.20	4.66	9.81	22.68	142.41	21.29				
	Sep	61.49	76.50	4.83	8.85	22.26	120.50	21.02				
	Oct	58.74	76.00	3.30	5.97	15.09	83.67	21.22				
	Nov	61.83	74.90	3.12	4.95	13.99	68.72	21.57				
	Dec	65.26	74.80	3.21	5.29	14.47	71.68	22.51				
2034	Jan	67.37	75.30	3.26	4.91	14.10	66.18	21.75				
	Feb	67.38	75.10	3.18	4.77	11.84	66.86	21.16				
	Mar	58.82	74.90	3.02	4.70	10.20	66.57	20.73				
	Apr	56.06	75.20	3.11	5.63	11.47	77.26	19.78				
	May	56.15	75.40	3.77	7.65	16.32	101.03	19.51				
	Jun	59.79	76.40	4.37	9.48	17.78	118.04	18.99				
	Jul	52.46	76.70	4.74	10.10	17.16	139.06	19.24				
	Aug	59.77	77.20	4.66	9.81	22.69	142.41	21.27				
	Sep	59.69	76.50	4.83	8.85	21.95	120.50	20.62				
	Oct	59.27	76.00	3.30	5.97	15.41	91.07	21.19				
	Nov	62.32	74.90	3.12	4.96	14.01	68.72	21.54				
	Dec	65.81	74.80	3.21	5.29	14.48	71.68	22.48				

	NCPA Study Member Monthly Peak Demand Forecasts: MW (part one)											
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc				
2035	Jan	67.94	75.30	3.26	4.91	14.11	66.18	21.72				
	Feb	68.00	75.10	3.18	4.77	11.85	66.86	21.13				
	Mar	59.34	74.90	3.02	4.70	10.24	66.57	20.70				
	Apr	56.46	75.20	3.11	5.63	11.49	77.26	19.76				
	Мау	56.64	75.40	3.77	7.65	16.34	101.03	19.48				
	Jun	60.21	76.40	4.37	9.48	17.98	118.04	18.96				
	Jul	53.13	76.70	4.74	10.10	17.17	139.06	19.21				
	Aug	60.52	77.20	4.66	9.81	22.70	142.41	21.24				
	Sep	58.73	76.50	4.83	8.85	22.54	120.50	20.82				
	Oct	60.06	76.00	3.30	5.97	15.42	91.07	21.17				
	Nov	63.08	74.90	3.12	4.96	14.02	68.72	21.52				
	Dec	66.62	74.80	3.21	5.29	14.48	71.68	22.46				
2036	Jan	68.80	75.30	3.26	4.91	14.12	66.18	21.70				
	Feb	68.91	75.10	3.18	4.77	11.85	66.86	21.11				
	Mar	60.14	74.90	3.02	4.70	10.32	66.57	20.67				
	Apr	57.15	75.20	3.11	5.63	11.51	77.26	19.73				
	May	57.41	75.40	3.77	7.65	16.37	101.03	19.46				
	Jun	60.94	76.40	4.37	9.48	17.97	118.04	18.93				
	Jul	53.58	76.70	4.74	10.10	17.18	139.06	19.18				
	Aug	61.03	77.20	4.66	9.81	22.71	142.41	21.22				
	Sep	63.10	76.50	4.83	8.85	22.16	120.50	20.94				
	Oct	60.65	76.00	3.30	5.97	14.84	91.07	21.14				
	Nov	63.63	74.90	3.12	4.96	14.03	68.72	21.49				
	Dec	67.23	74.80	3.21	5.29	14.49	71.68	22.43				
2037	Jan	69.44	75.30	3.26	4.91	14.13	66.18	21.67				
	Feb	69.60	75.10	3.18	4.77	11.88	66.86	21.08				
	Mar	60.74	74.90	3.02	4.70	10.25	66.57	20.65				
	Apr	57.61	75.20	3.11	5.63	11.53	77.26	19.70				
	Мау	57.96	75.40	3.77	7.65	16.39	101.03	19.43				
	Jun	61.41	76.40	4.37	9.48	17.75	118.04	18.91				
	Jul	54.05	76.70	4.74	10.10	17.19	139.06	19.16				
	Aug	61.56	77.20	4.66	9.81	22.72	142.41	21.19				
	Sep	63.59	76.50	4.83	8.85	22.16	120.50	20.92				
	Oct	61.26	76.00	3.30	5.97	15.10	91.07	21.11				
	Nov	64.22	74.90	3.12	4.96	14.04	68.72	21.46				
	Dec	67.87	74.80	3.21	5.29	14.50	71.68	22.41				
2038	Jan	70.12	75.30	3.26	4.91	14.14	66.18	21.64				
	Feb	70.34	75.10	3.18	4.77	11.89	66.86	21.06				
	Mar	61.37	74.90	3.02	4.70	10.23	66.57	20.62				

	NCPA Study Member Monthly Peak Demand Forecasts: MW (part one)											
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc				
	Apr	58.10	75.20	3.11	5.63	11.55	77.26	19.68				
	May	58.54	75.40	3.77	7.65	16.41	101.03	19.41				
	Jun	61.91	76.40	4.37	9.48	17.63	118.04	18.88				
	Jul	54.55	76.70	4.74	10.10	17.20	139.06	19.13				
	Aug	62.12	77.20	4.66	9.81	22.73	142.41	21.16				
	Sep	64.11	76.50	4.83	8.85	22.28	120.50	20.89				
	Oct	61.60	76.00	3.30	5.97	15.16	83.74	21.02				
	Nov	64.84	74.90	3.12	4.96	14.04	68.72	21.44				
	Dec	68.56	74.80	3.21	5.29	14.51	71.68	22.38				
2039	Jan	70.84	75.30	3.26	4.91	14.15	66.18	21.62				
	Feb	71.12	75.10	3.18	4.77	11.90	66.86	21.03				
	Mar	62.04	74.90	3.02	4.70	10.20	66.57	20.60				
	Apr	58.63	75.20	3.11	5.63	11.57	77.26	19.65				
	May	59.15	75.40	3.77	7.65	16.42	101.03	19.38				
	Jun	62.44	76.40	4.37	9.48	17.66	118.04	18.86				
	Jul	54.91	76.70	4.74	10.10	17.21	139.06	19.11				
	Aug	62.52	77.20	4.66	9.81	22.74	142.41	21.14				
	Sep	64.47	76.50	4.83	8.85	22.29	120.50	20.86				
	Oct	62.40	76.00	3.30	5.97	15.16	83.67	21.06				
	Nov	65.30	74.90	3.12	4.96	14.05	68.72	21.41				
	Dec	69.09	74.80	3.21	5.29	14.52	71.68	22.35				
2040	Jan	71.40	75.30	3.26	4.91	14.15	66.18	21.59				
	Feb	71.74	75.10	3.18	4.77	11.89	66.86	21.00				
	Mar	62.56	74.90	3.02	4.70	10.29	66.57	20.57				
	Apr	59.02	75.20	3.11	5.63	11.58	77.26	19.62				
	May	59.61	75.40	3.77	7.65	16.43	101.03	19.35				
	Jun	62.81	76.40	4.37	9.48	18.02	118.04	18.83				
	Jul	55.24	76.70	4.74	10.10	17.21	139.06	19.08				
	Aug	62.89	77.20	4.66	9.81	22.74	142.41	21.11				
	Sep	60.77	76.50	4.83	8.85	22.56	120.50	20.72				
	Oct	62.86	76.00	3.30	5.97	15.47	91.07	21.04				
	Nov	65.73	74.90	3.12	4.96	14.06	68.72	21.39				
	Dec	69.59	74.80	3.21	5.29	14.52	71.68	22.33				
2041	Jan	71.97	75.30	3.26	4.91	14.15	66.18	21.56				
	Feb	72.32	75.10	3.18	4.77	11.92	66.86	20.98				
	Mar	63.06	74.90	3.02	4.70	10.37	66.57	20.54				
	Apr	59.49	75.20	3.11	5.63	11.59	77.26	19.60				
	May	60.09	75.40	3.77	7.65	16.45	101.03	19.33				
	Jun	63.31	76.40	4.37	9.48	18.05	118.04	18.80				

NCPA Study Member Monthly Peak Demand Forecasts: MW (part one)											
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc			
	Jul	55.68	76.70	4.74	10.10	17.22	139.06	19.05			
	Aug	63.39	77.20	4.66	9.81	22.75	142.41	21.09			
	Sep	61.25	76.50	4.83	8.85	22.57	120.50	20.81			
	Oct	63.36	76.00	3.30	5.97	15.47	91.07	21.01			
	Nov	66.26	74.90	3.12	4.96	14.07	68.72	21.36			
	Dec	70.15	74.80	3.21	5.29	14.53	71.68	22.30			
2042	Jan	72.54	75.30	3.26	4.91	14.16	66.18	21.54			
	Feb	72.90	75.10	3.18	4.77	11.93	66.86	20.95			
	Mar	63.57	74.90	3.02	4.70	10.37	66.57	20.52			
	Apr	59.96	75.20	3.11	5.63	11.60	77.26	19.57			
	Мау	60.57	75.40	3.77	7.65	16.46	101.03	19.30			
	Jun	63.82	76.40	4.37	9.48	18.01	118.04	18.78			
	Jul	56.13	76.70	4.74	10.10	17.22	139.06	19.03			
	Aug	63.90	77.20	4.66	9.81	22.76	142.41	21.06			
	Sep	61.74	76.50	4.83	8.85	22.18	120.50	20.78			
	Oct	63.87	76.00	3.30	5.97	14.87	91.07	20.98			
	Nov	66.79	74.90	3.12	4.96	14.07	68.72	21.33			
	Dec	70.71	74.80	3.21	5.29	14.54	71.68	22.28			
2043	Jan	73.12	75.30	3.26	4.91	14.17	66.18	21.51			
	Feb	73.48	75.10	3.18	4.77	11.94	66.86	20.93			
	Mar	64.08	74.90	3.02	4.70	10.30	66.57	20.49			
	Apr	60.44	75.20	3.11	5.63	11.61	77.26	19.55			
	Мау	61.05	75.40	3.77	7.65	16.47	101.03	19.28			
	Jun	64.33	76.40	4.37	9.48	17.79	118.04	18.75			
	Jul	56.57	76.70	4.74	10.10	17.23	139.06	19.00			
	Aug	64.41	77.20	4.66	9.81	22.76	142.41	21.03			
	Sep	62.24	76.50	4.83	8.85	22.18	120.50	20.76			
	Oct	64.38	76.00	3.30	5.97	15.13	91.07	20.96			
	Nov	67.32	74.90	3.12	4.96	14.08	68.72	21.31			
	Dec	71.28	74.80	3.21	5.29	14.54	71.68	22.25			
2044	Jan	73.71	75.30	3.26	4.91	14.17	66.18	21.49			
	Feb	74.07	75.10	3.18	4.77	11.92	66.86	20.90			
	Mar	64.59	74.90	3.02	4.70	10.23	66.57	20.47			
	Apr	60.93	75.20	3.11	5.63	11.62	77.26	19.52			
	May	61.54	75.40	3.77	7.65	16.48	101.03	19.25			
	Jun	64.85	76.40	4.37	9.48	17.69	118.04	18.73			
	Jul	57.03	76.70	4.74	10.10	17.23	139.06	18.97			

NCPA Study Member Monthly Peak Demand Forecasts: MW (part one)										
Year	Month	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc		
	Aug	64.92	77.20	4.66	9.81	22.76	142.41	21.01		
	Sep	62.74	76.50	4.83	8.85	22.30	120.50	20.73		
	Oct	64.90	76.00	3.30	5.97	15.19	83.67	20.93		
	Nov	67.86	74.90	3.12	4.96	14.08	68.72	21.28		
	Dec	71.85	74.80	3.21	5.29	14.55	71.68	22.22		
2045	Jan	74.30	75.30	3.26	4.91	14.17	64.19	21.46		
	Feb	74.66	75.10	3.18	4.77	11.95	68.33	20.87		
	Mar	65.11	74.90	3.02	4.70	10.29	68.06	20.44		
	Apr	61.41	75.20	3.11	5.63	11.63	78.44	19.49		
	Мау	62.03	75.40	3.77	7.65	16.49	101.51	19.22		
	Jun	65.37	76.40	4.37	9.48	17.85	118.03	18.70		
	Jul	57.48	76.70	4.74	10.10	17.23	138.52	18.95		
	Aug	65.44	77.20	4.66	9.81	22.77	141.69	20.98		
	Sep	63.24	76.50	4.83	8.85	21.99	120.45	20.40		
	Oct	65.42	76.00	3.30	5.97	15.50	91.92	20.90		
	Nov	68.41	74.90	3.12	4.96	14.08	70.25	21.26		
	Dec	72.42	74.80	3.21	5.29	14.56	73.14	22.20		

D1. NCPA and Member Monthly Peak Demand Forecast Data

Table 60. NCPA Member Monthly Peak Demand Forecasts (part one)

D1. NCPA and Member Monthly Peak Demand Forecast Data

Table 61: NCPA Member Monthly Peak Demand Forecasts (part two) contains the *monthly* peak demand forecasts for the planning period for five NCPA members and the cumulative totals:

- City of Palo Alto Electric Utility
- Plumas-Sierra Rural Electric Cooperative
- Port of Oakland: Airport and Port of Oakland: Harbor
- City of Santa Clara Silicon Valley Power
- City of Ukiah Electric Utility
- NCPA totals

	NCPA Study Member Monthly Peak Demand Forecasts: MW (part two)											
			Plumas-	Port of (	Dakland:	Silicon		NCPA				
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals				
2023	Jan	119.66	28.45	5.52	12.66	547.79	16.29	858.66				
	Feb	120.73	27.20	5.30	13.22	543.67	16.21	867.10				
	Mar	121.79	24.92	5.74	12.21	549.39	16.56	855.58				
	Apr	124.33	20.30	5.72	13.08	568.09	15.80	863.20				
	May	133.33	21.39	5.52	14.56	586.16	25.10	925.45				
	Jun	156.31	26.87	6.08	15.60	633.46	31.74	1,013.10				
	Jul	152.29	27.96	5.65	14.07	621.23	32.42	1,034.31				
	Aug	169.14	26.30	5.93	17.59	656.81	30.08	1,072.71				
	Sep	162.91	22.30	6.39	18.00	637.28	28.23	1,016.61				
	Oct	130.16	20.92	6.16	15.23	636.51	18.41	951.86				
	Nov	116.62	22.84	5.90	14.98	580.53	16.43	892.44				
	Dec	114.48	25.60	6.09	11.16	577.52	17.53	890.91				
2024	Jan	114.22	25.22	6.56	15.80	596.64	17.41	923.52				
	Feb	116.00	23.60	6.25	19.78	592.21	16.79	907.60				
	Mar	117.78	21.70	6.22	18.89	598.35	16.75	889.34				
	Apr	124.28	20.14	6.15	16.89	618.42	16.00	927.02				
	May	133.22	21.22	5.93	18.75	637.81	25.29	1,011.83				
	Jun	156.16	26.71	6.59	20.15	688.58	31.94	1,090.23				
	Jul	151.80	27.79	6.06	18.17	675.46	32.61	1,125.31				
	Aug	168.59	26.14	6.40	22.72	711.95	30.27	1,174.07				
	Sep	165.25	22.14	6.92	23.25	692.69	29.40	1,105.91				
	Oct	130.07	20.76	6.61	19.67	691.86	18.60	1,062.88				
	Nov	116.63	22.68	6.39	19.35	631.78	16.62	934.27				
	Dec	114.46	25.43	6.57	14.41	628.54	17.72	945.77				
2025	Jan	116.16	25.06	6.56	25.14	667.78	17.35	1,017.99				
	Feb	117.93	23.45	6.48	31.48	662.88	16.72	1,000.45				
	Mar	119.70	21.56	6.23	30.05	669.68	16.68	965.35				
	Apr	126.29	20.02	6.14	26.88	691.94	15.93	1,031.79				
	May	135.21	21.12	5.95	29.86	713.43	25.23	1,113.88				

NCPA Study Member Monthly Peak Demand Forecasts: MW (part two)										
			Plumas-	Port of (	Dakland:	Silicon		ΝርΡΔ		
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals		
	Jun	157.98	26.62	6.59	32.06	769.72	31.87	1,189.94		
	Jul	153.64	27.71	6.04	28.92	755.17	32.54	1,221.36		
	Aug	170.53	26.07	6.42	36.16	795.63	30.20	1,244.88		
	Sep	170.18	22.09	6.90	37.00	774.28	30.99	1,211.59		
	Oct	131.47	20.72	6.61	31.31	773.35	18.53	1,135.24		
	Nov	118.73	22.65	6.40	30.79	706.74	16.55	1,027.28		
	Dec	116.47	25.42	6.54	22.94	703.15	17.65	1,024.83		
2026	Jan	117.36	25.06	6.76	25.14	730.03	17.28	1,072.84		
	Feb	119.10	23.45	6.67	31.48	724.70	16.65	1,065.70		
	Mar	120.84	21.56	6.39	30.05	732.09	16.62	1,037.58		
	Apr	127.46	20.02	6.32	26.88	756.24	15.86	1,091.91		
	May	136.38	21.12	6.15	29.82	779.58	25.16	1,167.90		
	Jun	158.80	26.62	6.75	32.06	840.67	31.80	1,254.95		
	Jul	154.63	27.71	6.22	28.92	824.88	32.48	1,269.10		
	Aug	171.60	26.07	6.61	36.16	868.79	30.13	1,312.48		
	Sep	171.27	22.09	7.08	37.00	845.62	30.92	1,297.50		
	Oct	132.39	20.72	6.81	31.31	844.61	18.46	1,227.62		
	Nov	120.03	22.65	6.58	30.79	772.31	16.48	1,101.57		
	Dec	117.70	25.42	6.71	22.94	768.42	17.59	1,094.73		
2027	Jan	117.33	25.06	7.54	30.57	786.25	17.21	1,137.91		
	Feb	119.01	23.45	7.41	38.29	780.53	16.58	1,121.45		
	Mar	120.70	21.56	7.08	36.55	788.45	16.55	1,086.97		
	Apr	127.27	20.02	7.02	32.69	814.39	15.79	1,158.83		
	May	136.23	21.12	6.84	36.41	839.43	25.09	1,242.72		
	Jun	158.76	26.62	7.48	39.00	905.00	31.73	1,314.24		
	Jul	154.24	27.71	6.92	35.17	888.05	32.41	1,343.30		
	Aug	171.28	26.07	7.33	43.98	935.18	30.06	1,418.09		
	Sep	171.01	22.09	7.87	45.00	910.31	30.85	1,371.78		
	Oct	129.82	20.46	7.58	38.08	909.24	18.39	1,262.53		
	Nov	120.04	22.65	7.28	37.44	831.63	16.42	1,170.04		
	Dec	117.69	25.42	7.46	27.89	827.45	17.52	1,157.36		
2028	Jan	116.86	25.06	7.72	32.61	855.81	17.14	1,197.66		
	Feb	118.47	23.45	7.32	40.84	849.60	16.51	1,178.95		
	Mar	120.08	21.56	7.26	38.99	858.20	16.48	1,156.90		
	Apr	126.55	20.02	7.22	34.87	886.35	15.72	1,195.98		
	Мау	135.52	21.12	6.96	38.84	913.54	25.02	1,261.81		
	Jun	158.08	26.62	7.67	41.60	984.73	31.66	1,369.72		
	Jul	153.23	27.71	7.12	37.52	966.33	32.34	1,406.83		

NCPA Study Member Monthly Peak Demand Forecasts: MW (part two)										
			Plumas-	Port of (	Dakland:	Silicon		ΝርΡΔ		
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals		
	Aug	170.29	26.07	7.49	46.91	1,017.49	29.99	1,444.45		
	Sep	164.26	22.09	8.06	48.00	990.49	28.11	1,389.38		
	Oct	132.71	20.72	7.77	40.62	989.32	18.32	1,331.25		
	Nov	119.62	22.65	7.45	39.94	905.08	16.35	1,244.19		
	Dec	117.27	25.42	7.68	29.75	900.54	17.45	1,234.55		
2029	Jan	117.21	25.06	9.36	35.33	913.27	17.07	1,262.18		
	Feb	118.74	23.45	9.26	44.25	906.66	16.45	1,242.68		
	Mar	120.28	21.56	8.87	42.24	915.82	16.41	1,219.62		
	Apr	126.66	20.02	8.81	37.78	945.82	15.66	1,260.75		
	May	135.70	21.12	8.46	42.04	974.78	24.95	1,349.89		
	Jun	158.44	26.62	9.38	45.06	1,050.62	31.60	1,446.21		
	Jul	153.22	27.71	8.69	40.65	1,031.02	32.27	1,486.18		
	Aug	170.41	26.07	9.13	50.82	1,085.52	29.93	1,572.16		
	Sep	164.38	22.09	9.86	52.00	1,056.76	28.46	1,485.88		
	Oct	133.02	20.72	9.45	44.00	1,055.51	18.26	1,423.53		
	Nov	120.06	22.65	9.11	43.27	965.76	16.28	1,294.63		
	Dec	117.64	25.42	9.39	32.23	960.93	17.38	1,291.15		
2030	Jan	117.30	25.06	11.21	75.41	969.81	17.00	1,370.64		
	Feb	118.73	23.45	11.11	94.45	962.80	16.38	1,349.69		
	Mar	120.16	21.56	10.66	90.16	972.51	16.34	1,312.59		
	Apr	126.39	20.02	10.54	80.65	1,004.30	15.59	1,368.19		
	May	135.49	21.12	10.17	89.51	1,035.00	24.89	1,465.11		
	Jun	158.34	26.62	11.29	96.19	1,115.39	31.53	1,570.74		
	Jul	152.75	27.71	10.39	86.76	1,094.61	32.20	1,581.44		
	Aug	170.03	26.07	10.97	108.49	1,152.39	29.86	1,660.97		
	Sep	166.77	22.09	11.86	111.00	1,121.90	28.79	1,588.52		
	Oct	132.99	20.72	11.32	93.93	1,120.58	18.19	1,559.91		
	Nov	120.23	22.65	10.96	92.36	1,025.45	16.21	1,391.77		
	Dec	117.78	25.42	11.26	68.81	1,020.32	17.31	1,389.64		
2031	Jan	117.58	25.06	11.70	76.09	1,027.17	16.94	1,435.44		
	Feb	118.88	23.45	11.57	95.30	1,019.76	16.31	1,404.63		
	Mar	120.18	21.56	11.12	90.98	1,030.03	16.28	1,369.44		
	Apr	126.24	20.02	10.96	81.37	1,063.64	15.52	1,439.47		
	May	135.40	21.12	10.63	90.38	1,096.10	24.82	1,550.95		
	Jun	158.36	26.62	11.76	97.06	1,181.10	31.46	1,630.84		
	Jul	152.42	27.71	10.79	87.54	1,159.13	32.14	1,659.13		
	Aug	169.79	26.07	11.46	109.47	1,220.22	29.79	1,695.31		
	Sep	169.52	22.09	12.32	112.00	1,187.98	30.58	1,646.87		

NCPA Study Member Monthly Peak Demand Forecasts: MW (part two)										
			Plumas-	Port of (	Dakland:	Silicon		ΝርΡΔ		
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals		
	Oct	131.41	20.72	11.80	94.78	1,186.59	18.12	1,616.27		
	Nov	120.58	22.65	11.42	93.19	1,086.00	16.14	1,463.64		
	Dec	118.06	25.42	11.68	69.43	1,080.58	17.24	1,444.38		
2032	Jan	117.48	25.06	12.21	76.09	1,085.07	16.87	1,479.58		
	Feb	118.60	23.45	11.65	95.30	1,077.24	16.24	1,459.30		
	Mar	119.73	21.56	11.51	90.98	1,088.09	16.21	1,428.20		
	Apr	125.59	20.02	11.41	81.37	1,123.57	15.45	1,505.69		
	May	134.77	21.12	11.11	90.62	1,157.83	24.75	1,605.93		
	Jun	157.72	26.62	12.16	97.06	1,247.55	31.39	1,673.90		
	Jul	151.46	27.71	11.25	87.54	1,224.36	32.07	1,729.10		
	Aug	168.83	26.07	11.92	109.47	1,288.84	29.72	1,805.04		
	Sep	168.58	22.09	12.78	112.00	1,254.81	30.51	1,768.23		
	Oct	127.64	20.46	12.32	94.78	1,253.34	18.05	1,658.92		
	Nov	120.48	22.65	11.82	93.19	1,147.16	16.08	1,520.46		
	Dec	117.96	25.42	12.12	69.43	1,141.44	17.18	1,509.11		
2033	Jan	118.19	25.06	12.70	76.09	1,119.18	16.80	1,500.43		
	Feb	119.15	23.45	12.50	95.30	1,111.11	16.17	1,490.05		
	Mar	120.10	21.56	11.94	90.98	1,122.30	16.14	1,464.15		
	Apr	125.78	20.02	11.86	81.37	1,158.89	15.38	1,533.57		
	May	135.03	21.12	11.52	90.62	1,194.23	24.68	1,618.95		
	Jun	158.14	26.62	12.62	97.06	1,286.75	31.32	1,698.32		
	Jul	151.52	27.71	11.71	87.54	1,262.84	32.00	1,735.81		
	Aug	169.00	26.07	12.34	109.47	1,329.34	29.65	1,764.62		
	Sep	168.77	22.09	13.27	112.00	1,294.25	30.44	1,829.57		
	Oct	130.44	20.72	12.81	94.78	1,292.73	17.98	1,684.47		
	Nov	121.27	22.65	12.25	93.19	1,183.23	16.01	1,567.41		
	Dec	118.73	25.42	12.59	69.43	1,177.33	17.11	1,536.74		
2034	Jan	118.57	25.06	13.16	76.09	1,139.98	16.73	1,521.02		
	Feb	119.35	23.45	12.96	95.30	1,131.76	16.10	1,517.71		
	Mar	120.13	21.56	12.39	90.98	1,143.15	16.07	1,487.24		
	Apr	125.55	20.02	12.32	81.37	1,180.42	15.31	1,525.29		
	May	134.82	21.12	11.88	90.62	1,216.42	24.61	1,589.43		
	Jun	158.02	26.62	13.10	97.06	1,310.66	31.25	1,712.68		
	Jul	151.04	27.71	12.16	87.54	1,286.30	31.93	1,771.12		
	Aug	168.58	26.07	12.78	109.47	1,354.04	29.59	1,807.78		
	Sep	162.56	22.09	13.76	112.00	1,318.30	27.52	1,761.62		
	Oct	133.34	20.72	13.26	94.78	1,316.75	17.91	1,694.74		
	Nov	121.74	22.65	12.72	93.19	1,205.21	15.94	1,590.74		

		NCPA S	tudy Member Mo	onthly Peak De	emand Foreca	sts: MW (part t	wo)	
			Plumas-	Port of	Oakland:	Silicon		ΝርΡΔ
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals
	Dec	119.18	25.42	13.12	69.43	1,199.20	17.04	1,567.14
2035	Jan	119.05	25.06	14.05	76.09	1,160.09	16.66	1,550.00
	Feb	119.65	23.45	13.89	95.30	1,151.72	16.04	1,537.77
	Mar	120.24	21.56	13.30	90.98	1,163.31	16.00	1,492.64
	Apr	125.37	20.02	13.21	81.37	1,201.24	15.25	1,553.63
	May	134.68	21.12	12.69	90.54	1,237.87	24.54	1,641.82
	Jun	157.97	26.62	14.07	97.06	1,333.78	31.19	1,748.59
	Jul	150.62	27.71	13.03	87.54	1,308.99	31.86	1,782.16
	Aug	168.23	26.07	13.70	109.47	1,377.92	29.52	1,896.03
	Sep	162.20	22.09	14.79	112.00	1,341.55	27.86	1,803.44
	Oct	133.52	20.72	14.17	94.78	1,339.97	17.85	1,744.98
	Nov	122.36	22.65	13.67	93.19	1,226.47	15.87	1,593.00
	Dec	119.65	25.42	14.09	69.43	1,220.36	16.97	1,575.27
2036	Jan	119.18	25.06	15.88	76.09	1,166.92	16.60	1,683.90
	Feb	119.74	23.45	15.19	95.30	1,158.51	15.97	1,511.65
	Mar	120.29	21.56	15.13	90.98	1,170.17	15.93	1,492.69
	Apr	125.22	20.02	14.91	81.37	1,208.32	15.18	1,545.28
	May	134.74	21.12	14.46	90.38	1,245.16	24.48	1,604.93
	Jun	158.12	26.62	15.99	97.06	1,341.64	31.12	1,659.36
	Jul	150.62	27.71	14.67	87.54	1,316.70	31.79	1,671.76
	Aug	168.39	26.07	15.59	109.47	1,386.04	29.45	1,711.92
	Sep	168.42	22.09	16.76	112.00	1,349.45	30.24	1,707.23
	Oct	133.20	20.72	16.05	94.78	1,347.87	17.78	1,700.33
	Nov	124.52	22.65	15.54	93.19	1,233.69	15.80	1,574.43
	Dec	121.90	25.42	15.89	69.43	1,227.54	16.90	1,580.45
2037	Jan	121.25	25.06	16.91	76.09	1,173.82	16.53	1,546.26
	Feb	121.49	23.45	16.66	95.30	1,165.36	15.90	1,527.37
	Mar	121.72	21.56	15.98	90.98	1,177.09	15.87	1,510.70
	Apr	126.27	20.02	15.79	81.37	1,215.46	15.11	1,543.95
	May	135.76	21.12	15.36	90.28	1,252.53	24.41	1,617.76
	Jun	158.93	26.62	16.88	97.06	1,349.57	31.05	1,654.36
	Jul	151.13	27.71	15.55	87.54	1,324.49	31.73	1,680.87
	Aug	168.78	26.07	16.53	109.47	1,394.24	29.38	1,720.31
	Sep	168.82	22.09	17.71	112.00	1,357.43	30.17	1,709.51
	Oct	135.19	20.72	17.01	94.78	1,355.84	17.71	1,734.59
	Nov	126.53	22.65	16.44	93.19	1,240.99	15.73	1,583.14
	Dec	123.86	25.42	16.78	69.43	1,234.80	16.84	1,579.87
2038	Jan	122.98	25.06	17.90	76.09	1,180.79	16.46	1,557.05

		NCPA S	tudy Member Me	onthly Peak D	emand Foreca	sts: MW (part t	wo)	
			Plumas-	Port of	Oakland:	Silicon		ΝርΡΔ
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals
	Feb	122.90	23.45	17.59	95.30	1,172.28	15.83	1,533.32
	Mar	122.82	21.56	16.82	90.98	1,184.08	15.80	1,507.19
	Apr	126.93	20.02	16.67	81.37	1,222.68	15.04	1,564.82
	May	136.33	21.12	16.24	90.62	1,259.97	24.34	1,599.83
	Jun	159.24	26.62	17.77	97.06	1,357.59	30.98	1,654.66
	Jul	151.16	27.71	16.44	87.54	1,332.35	31.66	1,703.77
	Aug	168.60	26.07	17.42	109.47	1,402.52	29.31	1,748.25
	Sep	168.61	22.09	18.68	112.00	1,365.49	30.10	1,723.12
	Oct	131.96	20.46	18.01	94.78	1,363.89	17.64	1,728.50
	Nov	128.22	22.65	17.28	93.19	1,248.36	15.67	1,596.96
	Dec	125.57	25.42	17.71	69.43	1,242.14	16.77	1,597.64
2039	Jan	124.80	25.06	18.82	76.09	1,187.83	16.39	1,550.71
	Feb	124.40	23.45	18.52	95.30	1,179.27	15.76	1,542.58
	Mar	124.00	21.56	17.69	90.98	1,191.14	15.73	1,521.56
	Apr	127.66	20.02	17.56	81.37	1,229.97	14.97	1,564.90
	May	136.95	21.12	17.06	90.62	1,267.48	24.27	1,606.76
	Jun	159.63	26.62	18.69	97.06	1,365.68	30.91	1,658.97
	Jul	151.26	27.71	17.35	87.54	1,340.30	31.59	1,685.88
	Aug	168.51	26.07	18.28	109.47	1,410.88	29.24	1,726.10
	Sep	168.55	22.09	19.65	112.00	1,373.63	30.04	1,735.79
	Oct	135.41	20.72	18.97	94.78	1,372.02	17.57	1,681.18
	Nov	130.09	22.65	18.14	93.19	1,255.80	15.60	1,610.51
	Dec	127.48	25.42	18.65	69.43	1,249.54	16.70	1,597.44
2040	Jan	126.28	25.06	18.24	71.17	1,194.95	16.32	1,550.93
	Feb	125.57	23.45	17.75	78.93	1,186.33	15.70	1,556.45
	Mar	124.87	21.56	17.21	75.66	1,198.27	15.66	1,527.57
	Apr	127.96	20.02	17.14	73.66	1,237.34	14.91	1,560.28
	May	137.11	21.12	16.74	83.16	1,275.07	24.20	1,586.80
	Jun	159.51	26.62	17.23	76.06	1,373.86	30.85	1,664.86
	Jul	150.81	27.71	17.18	66.46	1,348.32	31.52	1,673.71
	Aug	167.84	26.07	17.32	86.73	1,419.33	29.18	1,739.03
	Sep	163.08	22.09	18.41	84.93	1,381.86	27.36	1,716.69
	Oct	139.11	20.72	18.06	83.43	1,380.24	17.51	1,684.87
	Nov	131.67	22.65	17.91	86.14	1,263.32	15.53	1,625.69
	Dec	128.89	25.42	17.95	59.60	1,257.03	16.63	1,605.70
2041	Jan	128.54	25.06	18.24	71.17	1,202.13	16.25	1,572.58
	Feb	127.55	23.45	17.75	78.93	1,193.47	15.63	1,571.20
	Mar	126.56	21.56	17.21	75.66	1,205.48	15.59	1,514.00

		NCPA S	tudy Member Mo	onthly Peak De	emand Foreca	sts: MW (part t	wo)	
			Plumas-	Port of	Oakland:	Silicon		NCPA
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals
	Apr	129.06	20.02	17.14	73.66	1,244.78	14.84	1,534.94
	May	138.20	21.12	16.74	83.16	1,282.74	24.14	1,580.44
	Jun	160.40	26.62	17.23	76.06	1,382.12	30.78	1,682.84
	Jul	151.35	27.71	17.18	66.46	1,356.43	31.45	1,704.03
	Aug	168.28	26.07	17.32	86.73	1,427.86	29.11	1,768.65
	Sep	166.43	22.09	18.41	84.93	1,390.17	27.67	1,739.03
	Oct	140.70	20.72	18.06	83.43	1,388.54	17.44	1,718.32
	Nov	134.16	22.65	17.91	86.14	1,270.92	15.46	1,623.58
	Dec	131.32	25.42	17.95	59.60	1,264.59	16.56	1,599.79
2042	Jan	130.76	25.06	18.24	71.17	1,209.39	16.19	1,596.18
	Feb	129.36	23.45	17.75	78.93	1,200.67	15.56	1,574.42
	Mar	127.97	21.56	17.21	75.66	1,212.76	15.53	1,534.02
	Apr	129.90	20.02	17.14	73.66	1,252.30	14.77	1,590.76
	May	139.00	21.12	16.74	83.16	1,290.49	24.07	1,636.77
	Jun	160.94	26.62	17.23	76.06	1,390.47	30.71	1,711.28
	Jul	151.57	27.71	17.18	66.46	1,364.63	31.39	1,729.68
	Aug	168.37	26.07	17.32	86.73	1,436.49	29.04	1,774.70
	Sep	169.28	22.09	18.41	84.93	1,398.57	29.83	1,746.55
	Oct	139.98	20.72	18.06	83.43	1,396.93	17.37	1,720.26
	Nov	136.42	22.65	17.91	86.14	1,278.60	15.39	1,610.17
	Dec	133.41	25.42	17.95	59.60	1,272.22	16.49	1,619.32
2043	Jan	133.01	25.06	18.24	71.17	1,216.73	16.12	1,613.88
	Feb	131.15	23.45	17.75	78.93	1,207.96	15.49	1,590.41
	Mar	129.29	21.56	17.21	75.66	1,220.12	15.46	1,543.05
	Apr	130.68	20.02	17.14	73.66	1,259.90	14.70	1,608.40
	Мау	139.73	21.12	16.74	83.16	1,298.31	24.00	1,663.15
	Jun	161.35	26.62	17.23	76.06	1,398.91	30.64	1,719.79
	Jul	151.94	27.71	17.18	66.46	1,372.90	31.32	1,750.06
	Aug	168.33	26.07	17.32	86.73	1,445.20	28.97	1,776.59
	Sep	169.56	22.09	18.41	84.93	1,407.05	29.76	1,758.86
	Oct	141.86	20.72	18.06	83.43	1,405.40	17.30	1,740.09
	Nov	138.56	22.65	17.91	86.14	1,286.35	15.33	1,629.60
	Dec	135.47	25.42	17.95	59.60	1,279.94	16.43	1,631.25
2044	Jan	134.91	25.06	18.24	71.17	1,224.14	16.05	1,607.11
	Feb	132.57	23.45	17.75	78.93	1,215.32	15.42	1,599.77
	Mar	130.24	21.56	17.21	75.66	1,227.55	15.39	1,557.44
	Apr	131.09	20.02	17.14	73.66	1,267.57	14.63	1,607.88
	May	139.97	21.12	16.74	83.16	1,306.23	23.93	1,686.84

		NCPA S	tudy Member Mo	onthly Peak De	emand Forecas	sts: MW (part t	wo)	
			Plumas-	Port of (	Dakland:	Silicon		NCPA
Year	Month	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	Totals
	Jun	161.27	26.62	17.23	76.06	1,407.43	30.57	1,715.25
	Jul	151.97	27.71	17.18	66.46	1,381.27	31.25	1,730.34
	Aug	167.71	26.07	17.32	86.73	1,454.01	28.90	1,779.35
	Sep	168.26	22.09	18.41	84.93	1,415.63	29.69	1,767.84
	Oct	140.95	20.72	18.06	83.43	1,413.96	17.23	1,696.00
	Nov	140.35	22.65	17.91	86.14	1,294.19	15.26	1,651.55
	Dec	137.49	25.42	17.95	59.60	1,287.74	16.36	1,640.34
2045	Jan	137.43	25.06	18.24	71.17	1,231.64	15.98	1,611.65
	Feb	134.75	23.45	17.75	78.93	1,222.76	15.36	1,614.29
	Mar	132.07	21.56	17.21	75.66	1,235.06	15.32	1,570.25
	Apr	132.25	20.02	17.14	73.66	1,275.33	14.56	1,624.96
	Мау	141.04	21.12	16.74	83.16	1,314.22	23.86	1,657.02
	Jun	162.19	26.62	17.23	76.06	1,416.05	30.50	1,721.42
	Jul	152.85	27.71	17.18	66.46	1,389.72	31.18	1,745.82
	Aug	168.11	26.07	17.32	86.73	1,462.91	28.84	1,803.48
	Sep	164.88	22.09	18.41	84.93	1,424.29	26.43	1,775.26
	Oct	146.04	20.72	18.06	83.43	1,422.62	17.17	1,707.45
	Nov	143.05	22.65	17.91	86.14	1,302.11	15.19	1,663.18
	Dec	140.24	25.42	17.95	59.60	1,295.62	16.29	1,661.21

Table 61. NCPA Member Monthly Peak Demand Forecasts (part two)

# D2. NCPA AND MEMBER YEARLY PEAK DEMAND FORECAST DATA

Table 62: NCPA Member Yearly Peak Demand Forecasts (part one) contains the *yearly* peak demand forecasts for the planning period for seven NCPA members: City of Alameda Municipal Power, Bay Area Rapid Transit District, City of Biggs Electric Utility, City of Gridley Electric Department, City of Healdsburg Electric Department, City of Lodi Electric Utility, and City of Lompoc Electric Department.

	NCPA Study Member Yearly Peak Demand Forecasts: MW (part one)											
Year	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc					
2023	61.10	71.80	4.83	10.18	22.49	135.72	22.77					
2024	61.86	73.60	4.83	10.21	22.48	138.34	22.75					
2025	62.44	75.40	4.83	10.26	22.51	139.37	22.72					
2026	63.56	77.20	4.83	10.13	22.55	140.13	22.69					
2027	64.42	77.20	4.83	10.12	22.59	141.05	22.67					
2028	64.88	77.20	4.83	10.07	22.61	141.94	22.64					
2029	65.18	77.20	4.83	10.14	22.63	142.41	22.62					
2030	65.49	77.20	4.83	10.13	22.64	142.41	22.59					
2031	65.89	77.20	4.83	10.09	22.66	142.41	22.56					
2032	66.32	77.20	4.83	10.08	22.67	142.41	22.54					
2033	66.83	77.20	4.83	10.10	22.68	142.41	22.51					
2034	67.38	77.20	4.83	10.10	22.69	142.41	22.48					
2035	68.00	77.20	4.83	10.10	22.70	142.41	22.46					
2036	68.91	77.20	4.83	10.10	22.71	142.41	22.43					
2037	69.60	77.20	4.83	10.10	22.72	142.41	22.41					
2038	70.34	77.20	4.83	10.10	22.73	142.41	22.38					
2039	71.12	77.20	4.83	10.10	22.74	142.41	22.35					
2040	71.74	77.20	4.83	10.10	22.74	142.41	22.33					
2041	72.32	77.20	4.83	10.10	22.75	142.41	22.30					
2042	72.90	77.20	4.83	10.10	22.76	142.41	22.28					
2043	73.48	77.20	4.83	10.10	22.76	142.41	22.25					
2044	74.07	77.20	4.83	10.10	22.76	142.41	22.22					
2045	74.66	77.20	4.83	10.10	22.77	141.69	22.20					

Table 62. NCPA Member Yearly Peak Demand Forecasts (part one)

Table 63: NCPA Member Yearly Peak Demand Forecasts (part two) contains the *yearly* peak demand forecasts for the planning period for five NCPA members—City of Palo Alto Electric Utility, Plumas-Sierra Rural Electric Cooperative, Port of Oakland: Airport and Port of Oakland: Harbor, City of Santa Clara Silicon Valley Power, and City of Ukiah Electric Utility— and the NCPA totals.

		NCPA Stud	ly Member Ye	early Peak De	mand Forecast	s: MW (part	two)	
		Plumas-	Port of	Dakland:	Silicon			Coincidence
Year	Palo Alto	Sierra REC	Airport	Harbor	Valley	Ukiah	NCPA Totals	Factor
2023	169.14	28.45	6.39	18.00	656.81	32.42	1,072.71	0.87
2024	168.59	27.79	6.92	23.25	711.95	32.61	1,174.07	0.90
2025	170.53	27.71	6.90	37.00	795.63	32.54	1,244.88	0.88
2026	171.60	27.71	7.08	37.00	868.79	32.48	1,312.48	0.88
2027	171.28	27.71	7.87	45.00	935.18	32.41	1,418.09	0.90
2028	170.29	27.71	8.06	48.00	1,017.49	32.34	1,444.45	0.86
2029	170.41	27.71	9.86	52.00	1,085.52	32.27	1,572.16	0.90
2030	170.03	27.71	11.86	111.00	1,152.39	32.20	1,660.97	0.89
2031	169.79	27.71	12.32	112.00	1,220.22	32.14	1,695.31	0.87
2032	168.83	27.71	12.78	112.00	1,288.84	32.07	1,805.04	0.89
2033	169.00	27.71	13.27	112.00	1,329.34	32.00	1,829.57	0.89
2034	168.58	27.71	13.76	112.00	1,354.04	31.93	1,807.78	0.86
2035	168.23	27.71	14.79	112.00	1,377.92	31.86	1,896.03	0.88
2036	168.42	27.71	16.76	112.00	1,386.04	31.79	1,711.92	0.88
2037	168.82	27.71	17.71	112.00	1,394.24	31.73	1,734.59	0.88
2038	168.61	27.71	18.68	112.00	1,402.52	31.66	1,748.25	0.92
2039	168.55	27.71	19.65	112.00	1,410.88	31.59	1,735.79	0.92
2040	167.84	27.71	18.41	86.73	1,419.33	31.52	1,739.03	0.90
2041	168.28	27.71	18.41	86.73	1,427.86	31.45	1,768.65	0.90
2042	169.28	27.71	18.41	86.73	1,436.49	31.39	1,774.70	0.90
2043	169.56	27.71	18.41	86.73	1,445.20	31.32	1,776.59	0.90
2044	168.26	27.71	18.41	86.73	1,454.01	31.25	1,779.35	0.90
2045	168.11	27.71	18.41	86.73	1,462.91	31.18	1,803.48	0.89

Table 63. NCPA Member Yearl	y Peak Demand Forecas	ts (part two)
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# D3. MEMBER PEAK DEMAND FORECAST GRAPHS

Appendix G contains graphs of the annual peak demand forecasts for each member for the planning period.

Graphs for the City of Alameda, Bay Area Rapid Transit, City of Biggs, City of Gridley, City of Healdsburg, City of Lodi, and City of Lompoc were derived from Table 62: NCPA Member Yearly Peak Demand Forecasts (part one) on page D-18.

Graphs for the City of Palo Alto, Plumas-Sierra REC, Port of Oakland Airport, Port of Oakland Harbor, Silicon Valley Power, and City of Ukiah were derived from Table 63: NCPA Member Yearly Peak Demand Forecasts (part two) on page D-19:

#### City of Alameda

Figure 88 depicts the peak demand forecasts for the City of Alameda Municipal Power over the planning period. Alameda Municipal Power's peak demand is forecast to increase by 7.19 percent by 2030 and increase by 22.20 percent over the entire planning period.



Figure 88. City of Alameda Peak Demand Forecasts

#### Bay Area Rapid Transit District

Figure 89 depicts the peak demand forecasts for the Bay Area Rapid Transit District over the planning period. BART's peak demand is forecast to increase by 7.52 percent by 2030, and to remain at that percent over the entire planning period.



Figure 89. Bay Area Rapid Transit Peak Demand Forecasts

# City of Biggs

Figure 90 depicts the peak demand forecasts for the City of Biggs Electric Utility over the planning period. The City of Biggs' peak demand is forecast to remain the same (no increase nor decrease) over the planning period.



Figure 90. City of Biggs Peak Demand Forecasts

# City of Gridley

Figure 91 depicts the peak demand forecasts for the City of Gridley Electric Department over the planning period. The City of Gridley's peak demand is forecast to *decrease* by 0.52 percent by 2030 and *decrease* by 78 percent over the entire planning period.



Figure 91. City of Gridley Peak Demand Forecasts

#### City of Healdsburg

Figure 92 depicts the peak demand forecasts for the City of Healdsburg Electric Department over the planning period. The City of Healdsburg's peak demand is forecast to increase by 0.68 percent by 2030 and increase by 1.23 percent over the entire planning period.



Figure 92. City of Healdsburg Peak Demand Forecasts

# City of Lodi

Figure 93 depicts the peak demand forecasts for the City of Lodi Electric Utility over the planning period. The City of Lodi's peak demand is forecast to increase by 4.93 percent by 2030 and increase by 4.40 percent over the entire planning period.



Figure 93. City of Lodi Peak Demand Forecasts

#### City of Lompoc

Figure 94 depicts the peak demand forecasts for the City of Lompoc Electric Department over the planning period. The City of Lompoc's peak demand is forecast to *decrease* by 0.80 percent by 2030 and *decrease* by 2.52 percent over the entire planning period.



Figure 94. City of Lompoc Peak Demand Forecasts

#### City of Palo Alto

Figure 95 depicts the peak demand forecasts for the City of Palo Alto Electric Utility over the planning period. The City of Palo Alto's peak demand is forecast to increase by 0.52 percent by 2030 and *decrease* by 0.61 percent over the entire planning period.



Figure 95. City of Palo Alto Peak Demand Forecasts

#### Plumas-Sierra REC

Figure 96 depicts the peak demand forecasts for the Plumas-Sierra Rural Electric Cooperative over the planning period. The Plumas-Sierra REC's peak demand is forecast to *decrease* by 2.58 percent by 2030 and remain at that level over the entire planning period.



Figure 96. Plumas-Sierra Rural Electric Cooperative Peak Demand Forecasts

#### Port of Oakland: Airport

Figure 97 depicts the peak demand forecasts for the Port of Oakland Airport over the planning period. The Port of Oakland Airport's peak demand is forecast to increase by 85.69 percent by 2030 and increase by 188.17 percent over the entire planning period.



Figure 97. Port of Oakland: Airport Peak Demand Forecasts

#### Port of Oakland: Harbor

Figure 98 depicts the peak demand forecasts for the Port of Oakland Harbor over the planning period. The Port of Oakland Harbor's peak demand is forecast to increase by 516.67 percent by 2030 and increase by 381.83 percent over the entire planning period.



Figure 98. Port of Oakland: Harbor Peak Demand Forecasts

#### Silicon Valley Power

Figure 99 depicts the peak demand forecasts for Silicon Valley Power over the planning period. Silicon Valley Power's peak demand is forecast to increase by 75.45 percent by 2030 and increase by 122.73 percent over the entire planning period.



Figure 99. Silicon Valley Power Peak Demand Forecasts

#### City of Ukiah

Figure 100 depicts the peak demand forecasts for the City of Ukiah Electric Utility over the planning period. The City of Ukiah's peak demand is forecast to *decrease* by 0.67 percent by 2030 and *decrease* by 3.82 percent over the entire planning period.



Figure 100. City of Ukiah Peak Demand Forecasts

# D4. NCPA AND MEMBER SEASONAL MAXIMUM HOURLY PEAK DEMAND FORECAST DATA

#### Spring Maximum Hourly Demand Forecast Data

Table 64: NCPA Member Spring Maximum Hourly Peak Demand Forecasts (part one) contains the *spring* (March through May) maximum hourly demand forecasts for the planning period for seven NCPA members: Alameda Municipal Power, Bay Area Rapid Transit, and the cities of Biggs, Gridley, Healdsburg, Lodi, and Lompoc.

The data in this table is derived from the NCPA member monthly peak demand forecasts in Table 60: NCPA Member Monthly Peak Demand Forecasts (part one) on page D-9.

		Spring Maxim	um Hourly Peak	Demand Foreca	sts: MW (part one	)	
Year	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc
2023	60.79	70.00	3.77	7.46	16.01	94.26	21.01
2024	54.13	71.80	3.77	7.55	15.98	96.92	20.99
2025	54.48	73.60	3.77	7.55	16.00	97.96	20.96
2026	55.45	75.40	3.77	7.53	16.06	98.66	20.94
2027	56.21	75.40	3.77	7.60	16.12	99.67	20.91
2028	56.63	75.40	3.77	7.58	16.15	100.56	20.88
2029	56.91	75.40	3.77	7.63	16.18	101.03	20.86
2030	57.19	75.40	3.77	7.66	16.21	101.03	20.83
2031	57.53	75.40	3.77	7.61	16.24	101.03	20.80
2032	57.91	75.40	3.77	7.66	16.27	101.03	20.78
2033	58.34	75.40	3.77	7.65	16.30	101.03	20.75
2034	58.82	75.40	3.77	7.65	16.32	101.03	20.73
2035	59.34	75.40	3.77	7.65	16.34	101.03	20.70
2036	60.14	75.40	3.77	7.65	16.37	101.03	20.67
2037	60.74	75.40	3.77	7.65	16.39	101.03	20.65
2038	61.37	75.40	3.77	7.65	16.41	101.03	20.62
2039	62.04	75.40	3.77	7.65	16.42	101.03	20.60
2040	62.56	75.40	3.77	7.65	16.43	101.03	20.57
2041	63.06	75.40	3.77	7.65	16.45	101.03	20.54
2042	63.57	75.40	3.77	7.65	16.46	101.03	20.52
2043	64.08	75.40	3.77	7.65	16.47	101.03	20.49
2044	64.59	75.40	3.77	7.65	16.48	101.03	20.47
2045	65.11	75.40	3.77	7.65	16.49	101.51	20.44

Table 64. NCPA Member Spring Maximum Hourly Peak Demand Forecasts (part one)

Table 65: NCPA Member Spring Maximum Hourly Peak Demand Forecasts (part two) contains the *spring* (March through May) maximum hourly demand forecasts for the planning period for five NCPA members—the City of Palo Alto, the Plumas-Sierra Rural Electric Cooperative, the Port of Oakland (both at the airport and the harbor), Silicon Valley Power, and the City of Ukiah—and the NCPA totals.

Data from the NCPA Totals column was used to create the chart in Figure 38: NCPA Member Aggregate Maximum Hourly Peak Demand: Spring (page 3-11). The data in this table is derived from the NCPA member monthly peak demand forecasts in Table 61: NCPA Member Monthly Peak Demand Forecasts (part two) on page D-17.

	Spring Maximum Hourly Peak Demand Forecasts: MW (part two)										
		Plumas-	Port of (	Dakland:							
Year	Palo Alto	Sierra REC	Airport	Harbor	Silicon Valley	Ukiah	NCPA Totals				
2023	133.33	24.92	5.74	14.56	586.16	25.10	925.45				
2024	133.22	21.70	6.22	18.89	637.81	25.29	1,011.83				
2025	135.21	21.56	6.23	30.05	713.43	25.23	1,113.88				
2026	136.38	21.56	6.39	30.05	779.58	25.16	1,167.90				
2027	136.23	21.56	7.08	36.55	839.43	25.09	1,242.72				
2028	135.52	21.56	7.26	38.99	913.54	25.02	1,261.81				
2029	135.70	21.56	8.87	42.24	974.78	24.95	1,349.89				
2030	135.49	21.56	10.66	90.16	1,035.00	24.89	1,465.11				
2031	135.40	21.56	11.12	90.98	1,096.10	24.82	1,550.95				
2032	134.77	21.56	11.51	90.98	1,157.83	24.75	1,605.93				
2033	135.03	21.56	11.94	90.98	1,194.23	24.68	1,618.95				
2034	134.82	21.56	12.39	90.98	1,216.42	24.61	1,589.43				
2035	134.68	21.56	13.30	90.98	1,237.87	24.54	1,641.82				
2036	134.74	21.56	15.13	90.98	1,245.16	24.48	1,604.93				
2037	135.76	21.56	15.98	90.98	1,252.53	24.41	1,617.76				
2038	136.33	21.56	16.82	90.98	1,259.97	24.34	1,599.83				
2039	136.95	21.56	17.69	90.98	1,267.48	24.27	1,606.76				
2040	137.11	21.56	17.21	83.16	1,275.07	24.20	1,586.80				
2041	138.20	21.56	17.21	83.16	1,282.74	24.14	1,580.44				
2042	139.00	21.56	17.21	83.16	1,290.49	24.07	1,636.77				
2043	139.73	21.56	17.21	83.16	1,298.31	24.00	1,663.15				
2044	139.97	21.56	17.21	83.16	1,306.23	23.93	1,686.84				
2045	141.04	21.56	17.21	83.16	1,314.22	23.86	1,657.02				

Table 65. NCPA Member Spring Maximum Hourly Peak Demand Forecasts (part two)

#### Summer Maximum Hourly Demand Forecast Data

Table 66: NCPA Member Summer Maximum Hourly Peak Demand Forecasts (part one) contains the *summer* (June through August) maximum hourly demand forecasts for the planning period for seven NCPA members: Alameda Municipal Power, Bay Area Rapid Transit, and the cities of Biggs, Gridley, Healdsburg, Lodi, and Lompoc.

The data in this table is derived from the NCPA member monthly peak demand forecasts in Table 60: NCPA Member Monthly Peak Demand Forecasts (part one) on page D-9.

		Summer Maxim	num Hourly Peal	k Demand Forec	asts: MW (part on	e)	
Year	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc
2023	54.62	71.80	4.74	10.18	22.49	135.72	21.56
2024	55.64	73.60	4.74	10.21	22.48	138.34	21.53
2025	56.04	75.40	4.74	10.26	22.51	139.37	21.50
2026	56.85	77.20	4.74	10.13	22.55	140.13	21.48
2027	57.41	77.20	4.74	10.12	22.59	141.05	21.45
2028	57.94	77.20	4.74	10.07	22.61	141.94	21.42
2029	58.27	77.20	4.74	10.14	22.63	142.41	21.40
2030	58.55	77.20	4.74	10.13	22.64	142.41	21.37
2031	58.80	77.20	4.74	10.09	22.66	142.41	21.35
2032	59.10	77.20	4.74	10.08	22.67	142.41	21.32
2033	59.42	77.20	4.74	10.10	22.68	142.41	21.29
2034	59.79	77.20	4.74	10.10	22.69	142.41	21.27
2035	60.52	77.20	4.74	10.10	22.70	142.41	21.24
2036	61.03	77.20	4.74	10.10	22.71	142.41	21.22
2037	61.56	77.20	4.74	10.10	22.72	142.41	21.19
2038	62.12	77.20	4.74	10.10	22.73	142.41	21.16
2039	62.52	77.20	4.74	10.10	22.74	142.41	21.14
2040	62.89	77.20	4.74	10.10	22.74	142.41	21.11
2041	63.39	77.20	4.74	10.10	22.75	142.41	21.09
2042	63.90	77.20	4.74	10.10	22.76	142.41	21.06
2043	64.41	77.20	4.74	10.10	22.76	142.41	21.03
2044	64.92	77.20	4.74	10.10	22.76	142.41	21.01
2045	65.44	77.20	4.74	10.10	22.77	141.69	20.98

Table 66. NCPA Member Summer Maximum Hourly Peak Demand Forecasts (part one)

Table 67: NCPA Member Summer Maximum Hourly Peak Demand Forecasts (part two) contains the *summer* (June through August) maximum hourly demand forecasts for the planning period for five NCPA members—the City of Palo Alto, the Plumas-Sierra Rural Electric Cooperative, the Port of Oakland (both at the airport and the harbor), Silicon Valley Power, and the City of Ukiah—and the NCPA totals.

Data from the NCPA Totals column was used to create the chart in Figure 39: NCPA Member Aggregate Maximum Hourly Peak Demand: Summer (page 3-12). The data in this table is derived from the NCPA member monthly peak demand forecasts in Table 61: NCPA Member Monthly Peak Demand Forecasts (part two) on page D-17.

		Summer Max	imum Hourly Pe	ak Demand Fore	ecasts: MW (part	two)	
		Plumas-	Port of (	Dakland:			
Year	Palo Alto	Sierra REC	Airport	Harbor	Silicon Valley	Ukiah	NCPA Totals
2023	169.14	27.96	6.08	17.59	656.81	32.42	1,072.71
2024	168.59	27.79	6.59	22.72	711.95	32.61	1,174.07
2025	170.53	27.71	6.59	36.16	795.63	32.54	1,244.88
2026	171.60	27.71	6.75	36.16	868.79	32.48	1,312.48
2027	171.28	27.71	7.48	43.98	935.18	32.41	1,418.09
2028	170.29	27.71	7.67	46.91	1,017.49	32.34	1,444.45
2029	170.41	27.71	9.38	50.82	1,085.52	32.27	1,572.16
2030	170.03	27.71	11.29	108.49	1,152.39	32.20	1,660.97
2031	169.79	27.71	11.76	109.47	1,220.22	32.14	1,695.31
2032	168.83	27.71	12.16	109.47	1,288.84	32.07	1,805.04
2033	169.00	27.71	12.62	109.47	1,329.34	32.00	1,764.62
2034	168.58	27.71	13.10	109.47	1,354.04	31.93	1,807.78
2035	168.23	27.71	14.07	109.47	1,377.92	31.86	1,896.03
2036	168.39	27.71	15.99	109.47	1,386.04	31.79	1,711.92
2037	168.78	27.71	16.88	109.47	1,394.24	31.73	1,720.31
2038	168.60	27.71	17.77	109.47	1,402.52	31.66	1,748.25
2039	168.51	27.71	18.69	109.47	1,410.88	31.59	1,726.10
2040	167.84	27.71	17.32	86.73	1,419.33	31.52	1,739.03
2041	168.28	27.71	17.32	86.73	1,427.86	31.45	1,768.65
2042	168.37	27.71	17.32	86.73	1,436.49	31.39	1,774.70
2043	168.33	27.71	17.32	86.73	1,445.20	31.32	1,776.59
2044	167.71	27.71	17.32	86.73	1,454.01	31.25	1,779.35
2045	168.11	27.71	17.32	86.73	1,462.91	31.18	1,803.48

Table 67. NCPA Member Summer Maximum Hourly Peak Demand Forecasts (part two)
## Autumn Maximum Hourly Demand Forecast Data

Table 68: NCPA Member Autumn Maximum Hourly Peak Demand Forecasts (part one) contains the *autumn* (September through November) maximum hourly demand forecasts for the planning period for seven NCPA members: Alameda Municipal Power, Bay Area Rapid Transit, and the cities of Biggs, Gridley, Healdsburg, Lodi, and Lompoc.

The data in this table is derived from the NCPA member monthly peak demand forecasts in Table 60: NCPA Member Monthly Peak Demand Forecasts (part one) on page D-9.

Autumn Maximum Hourly Peak Demand Forecasts: MW (part one)								
Year	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc	
2023	56.96	71.10	4.83	8.80	21.82	111.95	21.83	
2024	57.85	72.90	4.83	8.80	22.40	116.44	21.80	
2025	58.52	74.70	4.83	8.79	22.00	117.47	21.78	
2026	59.30	76.50	4.83	8.82	22.04	118.26	21.75	
2027	59.72	76.50	4.83	8.82	22.20	119.14	21.73	
2028	59.97	76.50	4.83	8.81	21.90	120.03	21.70	
2029	60.24	76.50	4.83	8.86	22.49	120.50	21.67	
2030	60.57	76.50	4.83	8.77	22.51	120.50	21.65	
2031	60.94	76.50	4.83	8.89	22.12	120.50	21.62	
2032	61.37	76.50	4.83	8.87	22.25	120.50	21.59	
2033	61.83	76.50	4.83	8.85	22.26	120.50	21.57	
2034	62.32	76.50	4.83	8.85	21.95	120.50	21.54	
2035	63.08	76.50	4.83	8.85	22.54	120.50	21.52	
2036	63.63	76.50	4.83	8.85	22.16	120.50	21.49	
2037	64.22	76.50	4.83	8.85	22.16	120.50	21.46	
2038	64.84	76.50	4.83	8.85	22.28	120.50	21.44	
2039	65.30	76.50	4.83	8.85	22.29	120.50	21.41	
2040	65.73	76.50	4.83	8.85	22.56	120.50	21.39	
2041	66.26	76.50	4.83	8.85	22.57	120.50	21.36	
2042	66.79	76.50	4.83	8.85	22.18	120.50	21.33	
2043	67.32	76.50	4.83	8.85	22.18	120.50	21.31	
2044	67.86	76.50	4.83	8.85	22.30	120.50	21.28	
2045	68.41	76.50	4.83	8.85	21.99	120.45	21.26	

Table 68. NCPA Member Autumn Maximum Hourly Peak Demand Forecasts (part one)

Table 69: NCPA Member Autumn Maximum Hourly Peak Demand Forecasts (part two) contains the *autumn* (September through November) maximum hourly demand forecasts for the planning period for five NCPA members—the City of Palo Alto, the Plumas-Sierra Rural Electric Cooperative, the Port of Oakland (both at the airport and the harbor), Silicon Valley Power, and the City of Ukiah—and the NCPA totals.

Data from the NCPA Totals column was used to create the chart in Figure 40: NCPA Member Aggregate Maximum Hourly Peak Demand: Autumn (page 3-12). The data in this table is derived from the NCPA member monthly peak demand forecasts in Table 61: NCPA Member Monthly Peak Demand Forecasts (part two) on page D-17.

Autumn Maximum Hourly Peak Demand Forecasts: MW (part two)								
		Plumas-	Port of Oakland:					
Year	Palo Alto	Sierra REC	Airport	Harbor	Silicon Valley	Ukiah	NCPA Totals	
2023	162.91	22.84	6.39	18.00	637.28	28.23	1,016.61	
2024	165.25	22.68	6.92	23.25	692.69	29.40	1,105.91	
2025	170.18	22.65	6.90	37.00	774.28	30.99	1,211.59	
2026	171.27	22.65	7.08	37.00	845.62	30.92	1,297.50	
2027	171.01	22.65	7.87	45.00	910.31	30.85	1,371.78	
2028	164.26	22.65	8.06	48.00	990.49	28.11	1,389.38	
2029	164.38	22.65	9.86	52.00	1,056.76	28.46	1,485.88	
2030	166.77	22.65	11.86	111.00	1,121.90	28.79	1,588.52	
2031	169.52	22.65	12.32	112.00	1,187.98	30.58	1,646.87	
2032	168.58	22.65	12.78	112.00	1,254.81	30.51	1,768.23	
2033	168.77	22.65	13.27	112.00	1,294.25	30.44	1,829.57	
2034	162.56	22.65	13.76	112.00	1,318.30	27.52	1,761.62	
2035	162.20	22.65	14.79	112.00	1,341.55	27.86	1,803.44	
2036	168.42	22.65	16.76	112.00	1,349.45	30.24	1,707.23	
2037	168.82	22.65	17.71	112.00	1,357.43	30.17	1,734.59	
2038	168.61	22.65	18.68	112.00	1,365.49	30.10	1,728.50	
2039	168.55	22.65	19.65	112.00	1,373.63	30.04	1,735.79	
2040	163.08	22.65	18.41	86.14	1,381.86	27.36	1,716.69	
2041	166.43	22.65	18.41	86.14	1,390.17	27.67	1,739.03	
2042	169.28	22.65	18.41	86.14	1,398.57	29.83	1,746.55	
2043	169.56	22.65	18.41	86.14	1,407.05	29.76	1,758.86	
2044	168.26	22.65	18.41	86.14	1,415.63	29.69	1,767.84	
2045	164.88	22.65	18.41	86.14	1,424.29	26.43	1,775.26	

 Table 69.
 NCPA Member Autumn Maximum Hourly Peak Demand Forecasts (part two)

## Winter Maximum Hourly Peak Demand Forecast Data

Table 70: NCPA Member Winter Maximum Hourly Peak Demand Forecasts (part one) contains the *winter* (December through February) maximum hourly peak demand forecasts for the planning period for seven NCPA members: Alameda Municipal Power, Bay Area Rapid Transit, and the cities of Biggs, Gridley, Healdsburg, Lodi, and Lompoc.

The data in this table is derived from the NCPA member monthly peak demand forecasts in Table 60: NCPA Member Monthly Peak Demand Forecasts (part one) on page D-9.

Winter Maximum Hourly Peak Demand Forecasts: MW (part one)								
Year	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc	
2023	61.10	71.27	3.21	5.25	13.95	65.08	22.77	
2024	61.86	71.70	3.26	5.36	13.95	67.66	22.75	
2025	62.44	73.50	3.26	5.18	14.07	68.67	22.72	
2026	63.56	75.30	3.26	5.11	14.20	69.53	22.69	
2027	64.42	75.30	3.26	5.25	14.33	70.33	22.67	
2028	64.88	75.30	3.26	5.30	14.36	71.21	22.64	
2029	65.18	75.30	3.26	5.33	14.37	71.68	22.62	
2030	65.49	75.30	3.26	5.14	14.40	71.68	22.59	
2031	65.89	75.30	3.26	5.26	14.42	71.68	22.56	
2032	66.32	75.30	3.26	5.32	14.44	71.68	22.54	
2033	66.83	75.30	3.26	5.29	14.47	71.68	22.51	
2034	67.38	75.30	3.26	5.29	14.48	71.68	22.48	
2035	68.00	75.30	3.26	5.29	14.48	71.68	22.46	
2036	68.91	75.30	3.26	5.29	14.49	71.68	22.43	
2037	69.60	75.30	3.26	5.29	14.50	71.68	22.41	
2038	70.34	75.30	3.26	5.29	14.51	71.68	22.38	
2039	71.12	75.30	3.26	5.29	14.52	71.68	22.35	
2040	71.74	75.30	3.26	5.29	14.52	71.68	22.33	
2041	72.32	75.30	3.26	5.29	14.53	71.68	22.30	
2042	72.90	75.30	3.26	5.29	14.54	71.68	22.28	
2043	73.48	75.30	3.26	5.29	14.54	71.68	22.25	
2044	74.07	75.30	3.26	5.29	14.55	71.68	22.22	
2045	74.66	75.30	3.26	5.29	14.56	73.14	22.20	

Table 70. NCPA Member Winter Maximum Hourly Peak Demand Forecasts (part one)

Table 71: NCPA Member Winter Maximum Hourly Peak Demand Forecasts (part two) contains the *winter* (December through February) maximum hourly peak demand forecasts for the planning period for five NCPA members—the City of Palo Alto, the Plumas-Sierra Rural Electric Cooperative, the Port of Oakland (both at the airport and the harbor), Silicon Valley Power, and the City of Ukiah—and the NCPA totals.

Data from the NCPA Totals column was used to create the chart in Figure 41: NCPA Member Aggregate Maximum Hourly Peak Demand: Winter (page 3-13). The data in this table is derived from the NCPA member monthly peak demand forecasts in Table 61: NCPA Member Monthly Peak Demand Forecasts (part two) on page D-17.

Winter Maximum Hourly Peak Demand Forecasts: MW (part two)								
		Plumas-	Port of Oakland:					
Year	Palo Alto	Sierra REC	Airport	Harbor	Silicon Valley	Ukiah	NCPA Totals	
2023	120.73	28.45	6.09	13.22	577.52	17.53	890.91	
2024	116.00	25.43	6.57	19.78	628.54	17.72	945.77	
2025	117.93	25.42	6.56	31.48	703.15	17.65	1,024.83	
2026	119.10	25.42	6.76	31.48	768.42	17.59	1,094.73	
2027	119.01	25.42	7.54	38.29	827.45	17.52	1,157.36	
2028	118.47	25.42	7.72	40.84	900.54	17.45	1,234.55	
2029	118.74	25.42	9.39	44.25	960.93	17.38	1,291.15	
2030	118.73	25.42	11.26	94.45	1,020.32	17.31	1,389.64	
2031	118.88	25.42	11.70	95.30	1,080.58	17.24	1,444.38	
2032	118.60	25.42	12.21	95.30	1,141.44	17.18	1,509.11	
2033	119.15	25.42	12.70	95.30	1,177.33	17.11	1,536.74	
2034	119.35	25.42	13.16	95.30	1,199.20	17.04	1,567.14	
2035	119.65	25.42	14.09	95.30	1,220.36	16.97	1,575.27	
2036	121.90	25.42	15.89	95.30	1,227.54	16.90	1,683.90	
2037	123.86	25.42	16.91	95.30	1,234.80	16.84	1,579.87	
2038	125.57	25.42	17.90	95.30	1,242.14	16.77	1,597.64	
2039	127.48	25.42	18.82	95.30	1,249.54	16.70	1,597.44	
2040	128.89	25.42	18.24	78.93	1,257.03	16.63	1,605.70	
2041	131.32	25.42	18.24	78.93	1,264.59	16.56	1,599.79	
2042	133.41	25.42	18.24	78.93	1,272.22	16.49	1,619.32	
2043	135.47	25.42	18.24	78.93	1,279.94	16.43	1,631.25	
2044	137.49	25.42	18.24	78.93	1,287.74	16.36	1,640.34	
2045	140.24	25.42	18.24	78.93	1,295.62	16.29	1,661.21	

Table 71. NCPA Member Winter Maximum Hourly Peak Demand Forecasts (part two)

# D5. MEMBER SEASONAL MAXIMUM HOURLY PEAK DEMAND FORECAST GRAPHS

Appendix L contains five graphs depicting the seasonal maximum hourly peak demand forecasts for each member: one aggregated graph comparing and contrasting all four seasons, and four additional graphs: one for each season. Each season comprises three months:

- Spring Season: March through May
- Summer Season: June through August
- *Autumn Season:* September through November
- Winter Season: December through February

The data for these graphs are derived from the eight tables in Appendix D4. NCPA and Member Seasonal Maximum Hourly Peak Demand Forecast Data, starting on page D-27.

# City of Alameda

To help compare the forecasts, the vertical scale for all five City of Alameda seasonal graphs ranges from 48–72 MW. The City of Alameda's demand is forecasted to peak in winter 2040.

#### Seasonal Comparison

Figure 101 depicts the maximum hourly peak demand forecasts for all four seasons for the City of Alameda Municipal Power over the planning period.



Figure 101. City of Alameda Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 102 depicts the maximum hourly peak demand forecasts for the spring months for the City of Alameda Municipal Power over the planning period. The spring peak for 2023 was 61 MW because of unusually cold weather. The forecast is based on historical peak demand.



Figure 102. City of Alameda Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 103 depicts the maximum hourly peak demand forecasts for the summer months for the City of Alameda Municipal Power over the planning period



Figure 103. City of Alameda Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 104 depicts the maximum hourly peak demand forecasts for the autumn months for the City of Alameda Municipal Power over the planning period



Figure 104. City of Alameda Maximum Hourly Peak Demand Forecasts: Autumn Season

#### Winter Season

Figure 105 depicts the maximum hourly peak demand forecasts for the winter months for the City of Alameda Municipal Power over the planning period



Figure 105. City of Alameda Maximum Hourly Peak Demand Forecasts: Winter Season

## Bay Area Rapid Transit District

To help compare the forecasts, the vertical scale for all five BART seasonal graphs ranges from 60–80 MW. BART's demand is forecasted to peak in summer 2026.

#### Seasonal Comparison

Figure 106 depicts the maximum hourly peak demand forecasts for all four seasons for the Bay Area Rapid Transit District over the planning period.



Figure 106. BART Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 107 depicts the maximum hourly peak demand forecasts for the spring months for the Bay Area Rapid Transit District over the planning period.



Figure 107. BART Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 108 depicts the maximum hourly peak demand forecasts for the summer months for the Bay Area Rapid Transit District over the planning period.



Figure 108. BART Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 109 depicts the maximum hourly peak demand forecasts for the autumn months for the Bay Area Rapid Transit District over the planning period.



Figure 109. BART Maximum Hourly Peak Demand Forecasts: Autumn Season

#### Winter Season

Figure 110 depicts the maximum hourly peak demand forecasts for the winter months for the Bay Area Rapid Transit District over the planning period.



#### Figure 110. BART Maximum Hourly Peak Demand Forecasts: Winter Season

# City of Biggs

To help compare the forecasts, the vertical scale for all five City of Biggs seasonal graphs ranges from 0–6 MW. The City of Biggs's demand is forecasted to peak in autumn.

#### Seasonal Comparison

Figure 111 depicts the maximum hourly peak demand forecasts for all four seasons for the City of Biggs Electric Utility over the planning period.



Figure 111. City of Biggs Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 112 depicts the maximum hourly peak demand forecasts for the spring months for the City of Biggs Electric Utility over the planning period.



Figure 112. City of Biggs Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 113 depicts the maximum hourly peak demand forecasts for the summer months for the City of Biggs Electric Utility over the planning period.



Figure 113. City of Biggs Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 114 depicts the maximum hourly peak demand forecasts for the autumn months for the City of Biggs Electric Utility over the planning period.



Figure 114. City of Biggs Maximum Hourly Peak Demand Forecasts: Autumn Season

#### Winter Season

Figure 115 depicts the maximum hourly peak demand forecasts for the winter months for the City of Biggs Electric Utility over the planning period.



Figure 115. City of Biggs Maximum Hourly Peak Demand Forecasts: Winter Season

# City of Gridley

To help compare the forecasts, the vertical scale for all five City of Gridley seasonal graphs ranges from 0–12 MW. The City of Gridley's demand is forecasted to peak in summer 2025.

## Seasonal Comparison

Figure 116 depicts the maximum hourly peak demand forecasts for all four seasons for the City of Gridley Electric Department over the planning period.



Figure 116. City of Gridley Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 117 depicts the maximum hourly peak demand forecasts for the spring months for the City of Gridley Electric Department over the planning period.



Figure 117. City of Gridley Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 118 depicts the maximum hourly peak demand forecasts for the summer months for the City of Gridley Electric Department over the planning period.



Figure 118. City of Gridley Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 119 depicts the maximum hourly peak demand forecasts for the autumn months for the City of Gridley Electric Department over the planning period.



Figure 119. City of Gridley Maximum Hourly Peak Demand Forecasts: Autumn Season

#### Winter Season

Figure 120 depicts the maximum hourly peak demand forecasts for the winter months for the Bay Area Rapid Transit District over the planning period.



Figure 120. City of Gridley Maximum Hourly Peak Demand Forecasts: Winter Season

## City of Healdsburg

To help compare the forecasts, the vertical scale for all five City of Healdsburg seasonal graphs ranges from 0–24 MW. The City of Healdsburg's demand is forecasted to peak in summer 2041.

#### Seasonal Comparison

Figure 121 depicts the maximum hourly peak demand forecasts for all four seasons for the City of Healdsburg Electric Department over the planning period.



Figure 121. City of Healdsburg Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 122 depicts the maximum hourly peak demand forecasts for the spring months for the City of Healdsburg Electric Department over the planning period.





#### Summer Season

Figure 123 depicts the maximum hourly peak demand forecasts for the summer months for the City of Healdsburg Electric Department over the planning period.



Figure 123. City of Healdsburg Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 124 depicts the maximum hourly peak demand forecasts for the autumn months for the City of Healdsburg Electric Department over the planning period.



Figure 124. City of Healdsburg Maximum Hourly Peak Demand Forecasts: Autumn Season

#### Winter Season

Figure 125 depicts the maximum hourly peak demand forecasts for the winter months for the City of Healdsburg Electric Department over the planning period.



Figure 125. City of Healdsburg Maximum Hourly Peak Demand Forecasts: Winter Season

# City of Lodi

To help compare the forecasts, the vertical scale for all five City of Lodi seasonal graphs ranges from 0–160 MW. The City of Lodi's demand is forecasted to peak in summer 2029.

#### Seasonal Comparison

Figure 126 depicts the maximum hourly peak demand forecasts for all four seasons for the City of Lodi Electric Department over the planning period.



Figure 126. City of Lodi Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 127 depicts the maximum hourly peak demand forecasts for the spring months for the City of Lodi Electric Department over the planning period.



Figure 127. City of Lodi Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 128 depicts the maximum hourly peak demand forecasts for the summer months for the City of Lodi Electric Department over the planning period.



Figure 128. City of Lodi Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 129 depicts the maximum hourly peak demand forecasts for the autumn months for the City of Lodi Electric Department over the planning period.



Figure 129. City of Lodi Maximum Hourly Peak Demand Forecasts: Autumn Season

## Winter Season

Figure 130 depicts the maximum hourly peak demand forecasts for the winter months for the City of Lodi Electric Department over the planning period.



Figure 130. City of Lodi Maximum Hourly Peak Demand Forecasts: Winter Season

# City of Lompoc

To help compare the forecasts, the vertical scale for all five City of Lompoc seasonal graphs ranges from 16–24 MW. The City of Lompoc's demand is forecasted to peak in winter 2045.

#### Seasonal Comparison

Figure 131 depicts the maximum hourly peak demand forecasts for all four seasons for the City of Lompoc Electric Department over the planning period.



Figure 131. City of Lompoc Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 132 depicts the maximum hourly peak demand forecasts for the spring months for the City of Lompoc Electric Department over the planning period.



Figure 132. City of Lompoc Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 133 depicts the maximum hourly peak demand forecasts for the summer months for the City of Lompoc Electric Department over the planning period.



Figure 133. City of Lompoc Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 134 depicts the maximum hourly peak demand forecasts for the autumn months for the City of Lompoc Electric Department over the planning period.



#### Figure 134. City of Lompoc Maximum Hourly Peak Demand Forecasts: Autumn Season

#### Winter Season

Figure 135 depicts the maximum hourly peak demand forecasts for the winter months for the City of Lompoc Electric Department over the planning period.



Figure 135. City of Lompoc Maximum Hourly Peak Demand Forecasts: Winter Season

# City of Palo Alto

To help compare the forecasts, the vertical scale for all five City of Palo Alto seasonal graphs ranges from 80–200 MW. The City of Palo Alto's demand is forecasted to peak in winter 2045.

#### Seasonal Comparison

Figure 136 depicts the maximum hourly peak demand forecasts for all four seasons for the City of Palo Alto Electric Utility over the planning period.



Figure 136. City of Palo Alto Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 137 depicts the maximum hourly peak demand forecasts for the spring months for the City of Palo Alto Electric Utility over the planning period.



Figure 137. City of Palo Alto Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 138 depicts the maximum hourly peak demand forecasts for the summer months for the City of Palo Alto Electric Utility over the planning period.



Figure 138. City of Palo Alto Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 139 depicts the maximum hourly peak demand forecasts for the autumn months for the City of Palo Alto Electric Utility over the planning period.



Figure 139. City of Palo Alto Maximum Hourly Peak Demand Forecasts: Autumn Season

## Winter Season

Figure 140 depicts the maximum hourly peak demand forecasts for the winter months for the City of Palo Alto Electric Utility over the planning period.



#### Figure 140. City of Palo Alto Maximum Hourly Peak Demand Forecasts: Winter Season

## Plumas-Sierra REC

To help compare the forecasts, the vertical scale for all five Plumas-Sierra REC seasonal graphs ranges from 14–30 MW. Plumas-Sierra REC's demand is forecasted to peak in summer 2023.

#### Seasonal Comparison

Figure 141 depicts the maximum hourly peak demand forecasts for all four seasons for the Plumas-Sierra REC over the planning period.



Figure 141. Plumas-Sierra REC Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 142 depicts the maximum hourly peak demand forecasts for the spring months for the Plumas-Sierra REC over the planning period. The spring peak for 2023 was 25 MW because of unusually cold weather. The forecast is based on historical peak demand.



Figure 142. Plumas-Sierra REC Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 143 depicts the maximum hourly peak demand forecasts for the summer months for the Plumas-Sierra REC over the planning period.



Figure 143. Plumas-Sierra REC Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 144 depicts the maximum hourly peak demand forecasts for the autumn months for the Plumas-Sierra REC over the planning period.



Figure 144. Plumas-Sierra REC Maximum Hourly Peak Demand Forecasts: Autumn Season

#### Winter Season

Figure 145 depicts the maximum hourly peak demand forecasts for the winter months for the Plumas-Sierra REC over the planning period. The spring peak for 2023 was 25 MW because of unusually cold weather. The forecast is based on historical peak demand.



Figure 145. Plumas-Sierra REC Maximum Hourly Peak Demand Forecasts: Winter Season

## Port of Oakland: Airport

To help compare the forecasts, the vertical scale for all five Port of Oakland Airport seasonal graphs ranges from 0–22 MW. The Airport's demand is forecasted to peak in autumn 2039.

#### Seasonal Comparison

Figure 146 depicts the maximum hourly peak demand forecasts for all four seasons for the Port of Oakland Airport over the planning period.



Figure 146. Port of Oakland Airport Maximum Hourly Peak Demand Forecasts: All Seasons

#### Spring Season

Figure 147 depicts the maximum hourly peak demand forecasts for the spring months for the Port of Oakland Airport over the planning period.



Figure 147. Port of Oakland Airport Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 148 depicts the maximum hourly peak demand forecasts for the summer months for the Port of Oakland Airport over the planning period.



Figure 148. Port of Oakland Airport Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 149 depicts the maximum hourly peak demand forecasts for the autumn months for the Port of Oakland Airport over the planning period.



Figure 149. Port of Oakland Airport Maximum Hourly Peak Demand Forecasts: Autumn Season

#### Winter Season

Figure 150 depicts the maximum hourly peak demand forecasts for the winter months for the Port of Oakland Airport over the planning period.



Figure 150. Port of Oakland Airport Maximum Hourly Peak Demand Forecasts: Winter Season

## Port of Oakland: Harbor

To help compare the forecasts, the vertical scale for all five Port of Oakland Harbor seasonal graphs ranges from 0–120 MW. The Harbor's demand is forecasted to peak in autumn 2031.

#### Seasonal Comparison

Figure 151 depicts the maximum hourly peak demand forecasts for all four seasons for the Port of Oakland Harbor over the planning period.



Figure 151. Port of Oakland Harbor Maximum Hourly Peak Demand Forecasts: All Seasons

#### Spring Season

Figure 152 depicts the maximum hourly peak demand forecasts for the spring months for the Port of Oakland Harbor over the planning period.



Figure 152. Port of Oakland Harbor Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 153 depicts the maximum hourly peak demand forecasts for the summer months for the Port of Oakland Harbor over the planning period.



Figure 153. Port of Oakland Harbor Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 154 depicts the maximum hourly peak demand forecasts for the autumn months for the Port of Oakland Harbor over the planning period.



Figure 154. Port of Oakland Harbor Maximum Hourly Peak Demand Forecasts: Autumn Season

#### Winter Season

Figure 155 depicts the maximum hourly peak demand forecasts for the winter months for the Port of Oakland Harbor over the planning period.



Figure 155. Port of Oakland Harbor Maximum Hourly Peak Demand Forecasts: Winter Season

## Silicon Valley Power

To help compare the forecasts, the vertical scale for all five Silicon Valley Power seasonal graphs ranges from 200–1,600 MW. SVP's demand is forecasted to peak in summer 2045.

#### Seasonal Comparison

Figure 156 depicts the maximum hourly peak demand forecasts for all four seasons for Silicon Valley Power over the planning period.



Figure 156. Silicon Valley Power Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 157 depicts the maximum hourly peak demand forecasts for the spring months for Silicon Valley Power over the planning period.



Figure 157. Silicon Valley Power Maximum Hourly Peak Demand Forecasts: Spring Season

#### Summer Season

Figure 158 depicts the maximum hourly peak demand forecasts for the summer months for Silicon Valley Power over the planning period.



#### Figure 158. Silicon Valley Power Maximum Hourly Peak Demand Forecasts: Summer Season

#### Autumn Season

Figure 159 depicts the maximum hourly peak demand forecasts for the autumn months for Silicon Valley Power over the planning period.



Figure 159. Silicon Valley Power Maximum Hourly Peak Demand Forecasts: Autumn Season

## Winter Season

Figure 160 depicts the maximum hourly peak demand forecasts for the winter months for Silicon Valley Power over the planning period.



#### Figure 160. Silicon Valley Power Maximum Hourly Peak Demand Forecasts: Winter Season
## City of Ukiah

To help compare the forecasts, the vertical scale for all five City of Ukiah seasonal graphs ranges from 8–36 MW. The City of Ukiah's demand is forecasted to peak in summer 2024.

## Seasonal Comparison

Figure 161 depicts the maximum hourly peak demand forecasts for all four seasons for the City of Ukiah Electric Utility over the planning period.



Figure 161. City of Ukiah Maximum Hourly Peak Demand Forecasts: All Seasons

## Spring Season

Figure 162 depicts the maximum hourly peak demand forecasts for the spring months for the City of Ukiah Electric Utility over the planning period.



Figure 162. City of Ukiah Maximum Hourly Peak Demand Forecasts: Spring Season

## Summer Season

Figure 163 depicts the maximum hourly peak demand forecasts for the summer months for the City of Ukiah Electric Utility over the planning period.



Figure 163. City of Ukiah Maximum Hourly Peak Demand Forecasts: Summer Season

## Autumn Season

Figure 164 depicts the maximum hourly peak demand forecasts for the autumn months for the City of Ukiah Electric Utility over the planning period.



Figure 164. City of Ukiah Maximum Hourly Peak Demand Forecasts: Autumn Season

## Winter Season

Figure 165 depicts the maximum hourly peak demand forecasts for the winter months for the City of Ukiah Electric Utility over the planning period.



Figure 165. City of Ukiah Maximum Hourly Peak Demand Forecasts: Winter Season

# E. Additional IARP Forecasts

# E1. HYDROELECTRIC FORECASTS

## Western Area Power Administration and the Central Valley Project

Table 72 shows the on-peak and off-peak energy, as well as the percent of on-peak energy that can be expected monthly (including split months) based on the representative water year 2002. The on-peak base resource energy ranges from 72 percent to 90 percent.

	Month and Split-Month Energy (MWh)						
Month	Off-Peak	On-Peak	Total	Daily Ave	On-Peak %		
October	35,170	177,048	212,218	6,846	83%		
November	9,722	31,709	41,431	1,381	77%		
December	17,401	56,769	74,169	2,393	77%		
January	14,741	58,152	72,893	2,351	80%		
February	5,309	50,062	55,371	1,978	90%		
March	18,796	99,816	118,613	3,826	84%		
April 1–14	11,343	50,038	61,381	4,384	82%		
April 15-30	28,414	163,861	192,274	12,017	85%		
May 1-15	58,597	150,636	209,233	13,949	72%		
May 16-31	68,057	188,061	256,118	16,007	73%		
June	120,667	396,953	517,620	17,254	77%		
July	125,509	415,430	540,939	17,450	77%		
August 1-15	38,428	174,604	213,033	14,202	82%		
August 16-31	24,921	150,249	175,170	10,948	86%		
September	37,352	130,284	167,636	5,588	78%		

Table 72. Monthly Base Resource Energy Distribution for Water Year 2002<sup>39</sup>

<sup>&</sup>lt;sup>39</sup> WAPA, *op. cit.*; Table 3-2 – Monthly and Daily Base Resource Energy Distribution for WY 2002, p. 28.

# Calaveras Hydroelectric Forecast

Table 73 lists the historical and forecasted annual generation data for the Calaveras Hydroelectric Project, which includes the aggregate of Collierville Units 1 and 2 and the aggregate of Spicer Units 1, 2, and 3. This data was used to create Figure 43: Calaveras Hydroelectric Historical and Forecasted Annual Generation (page 3-15).

	Calaveras Hy	/droelectric Unit A	ggregates		Calaveras Hydroelectric Unit Aggregates			
Year	Collierville Units 1 & 2	Spicer Units 1–3	Total Generation	Year	Collierville Units 1 & 2	Spicer Units 1–3	Total Generation	
2010	595,272	19,763	615,035	2028	410,901	13,603	424,504	
2011	873,192	29,975	903,168	2029	406,655	13,301	419,956	
2012	304,974	10,799	315,773	2030	402,588	12,943	415,531	
2013	210,973	12,595	223,568	2031	398,562	12,848	411,410	
2014	177,637	8,826	186,464	2032	394,710	12,746	407,456	
2015	143,410	6,212	149,622	2033	390,631	12,677	403,308	
2016	460,797	11,393	472,190	2034	386,725	12,611	399,335	
2017	1,032,368	35,167	1,067,535	2035	382,857	12,485	395,342	
2018	365,609	14,311	379,920	2036	379,029	12,360	391,389	
2019	907,978	24,525	932,503	2037	375,238	12,236	387,475	
2020	305,319	13,075	318,393	2038	371,486	12,114	383,600	
2021	186,665	7,263	193,928	2039	367,771	11,993	379,764	
2022	264,163	9,584	273,746	2040	364,093	11,873	375,966	
2023	979,260	27,905	1,007,164	2041	360,453	11,754	372,207	
2024	427,524	13,805	441,328	2042	356,848	11,637	368,485	
2025	422,936	13,628	436,565	2043	353,280	11,520	364,800	
2026	418,707	13,975	432,683	2044	349,747	11,405	361,152	
2027	414,517	13,989	428,507	2045	346,249	11,291	357,540	

Table 73. Calaveras Hydroelectric Historical and Forecasted Annual Generation Data

# E2. CALIFORNIA ENERGY FORECASTS

The CEDU for 2022 forecasts electricity consumption to be 289,503 GWh in 2023 and to be 358,738 GWh in 2035—a growth rate of 23.92 percent.

Table 74 lists the annual historical and forecasted energy consumption by sector. The data in this table relate to information in Table 10: IEPR Statewide Forecast Results: 2035 (page 3-16), was used to create Figure 44: IEPR Statewide Baseline Electricity Consumption on page 3-17.

Year	Residential	Commercial	Industrial	Mining	AGWP*	TCU‡	Streetlighting	Total
2000	79,519	94,173	48,040	6,146	17,723	14,418	1,396	261,414
2001	75,239	91,354	44,531	5,827	18,954	12,979	1,446	250,330
2002	76,770	93,163	44,920	5,742	20,837	13,102	1,407	255,939
2003	81,721	97,090	42,615	6,284	19,428	13,067	1,419	261,623
2004	83,851	99,285	43,827	7,124	21,945	13,477	1,443	270,952
2005	85,670	100,003	44,308	7,334	19,533	14,265	1,544	272,658
2006	89,752	103,402	43,984	7,633	20,680	14,555	1,556	281,562
2007	89,139	104,823	44,217	7,961	22,777	14,926	1,562	285,404
2008	90,988	106,006	43,688	8,058	19,532	15,560	1,598	285,430
2009	90,117	102,727	39,650	8,038	19,335	15,844	1,585	277,297
2010	87,475	100,495	39,654	7,834	20,108	15,683	1,539	272,788
2011	88,745	100,963	40,060	8,024	20,138	16,190	1,489	275,608
2012	91,105	103,329	40,370	7,664	21,027	16,146	1,437	281,079
2013	89,996	103,329	40,308	7,564	20,652	15,993	1,359	279,201
2014	90,005	106,186	41,133	9,053	18,746	15,358	1,343	281,824
2015	89,697	104,982	41,538	9,414	19,018	15,287	1,428	281,364
2016	89,598	104,473	41,589	9,067	21,359	15,611	1,383	283,080
2017	92,753	104,413	41,310	9,126	22,231	15,435	1,342	286,610
2018	91,199	103,709	40,651	8,975	19,975	15,372	1,278	281,159
2019	92,178	102,688	39,913	9,334	19,686	15,637	1,113	280,549
2020	102,344	94,588	37,821	8,188	18,876	14,941	1,051	277,809
2021	99,515	96,423	38,900	8,079	19,078	15,807	1,191	278,991
2022	98,961	100,980	38,864	8,536	21,130	15,305	1,210	284,987
2023	100,955	103,735	38,830	8,576	20,823	15,400	1,184	289,503
2024	103,395	106,423	38,993	8,526	21,083	15,427	1,156	295,002
2025	105,592	109,260	38,973	8,429	21,356	15,463	1,124	300,197
2026	107,949	111,865	38,992	8,357	21,644	15,506	1,094	305,407
2027	110,336	114,737	39,041	8,298	21,917	15,548	1,064	310,941
2028	112,802	117,739	38,996	8,208	22,198	15,597	1,034	316,574
2029	115,240	121,011	38,980	8,138	22,475	15,657	1,005	322,504
2030	117,811	124,201	38,997	8,068	22,732	15,723	975	328,506

#### E. Additional IARP Forecasts

E2. California Energy Forecasts

Year	Residential	Commercial	Industrial	Mining	AGWP*	TCU‡	Streetlighting	Total
2031	120,252	127,786	39,068	8,019	22,993	15,781	947	334,846
2032	122,680	131,199	39,126	7,973	23,267	15,844	919	341,007
2033	125,061	134,645	39,181	7,924	23,554	15,897	892	347,154
2034	127,399	137,833	39,229	7,866	23,841	15,966	867	353,001
2035	129,672	141,009	39,264	7,798	24,125	16,027	843	358,738

\* Agriculture and Water Pumping
‡ Transportation, Communications, and Utilities

Table 74. California Energy Demand Update Annual Historical and Forecast Data<sup>40</sup>

<sup>&</sup>lt;sup>40</sup> California Energy Commission, *op. cit.*; addendum TN248375\_20230112T121637\_CEDU 2022 Baseline Forecast - STATE.xlsx, Form 1.1

# E3. ELECTRIC VEHICLE AND CHARGING DEMAND FORECAST

The EV and charging demand forecast for all members is included in the peak demand forecasts presented in Appendix D. NCPA and Member Peak Demand Forecasts (page D-1). These forecasts included expected demand increases from three types of Electric Vehicle Supply Equipment (EVSE): Level 1 (L1) private charging stations, Level 2 (L2) public charging stations, and Direct Current Fast Charge (DCFC) public charging stations.

# Baseline Light-Duty Electric Vehicle Energy Forecast

The IEPR forecast energy requirements for the increasing number of residential and commercial light-duty electric vehicles (LDEV) that are also forecast to dramatically increase by 2035. This forecast provides insight into the amount of energy necessary for members to meet the requirements for the anticipated influx of PHEVs and ZEVs.

	Light-Du	ty Electric Vehicles (GWh)					
Year	Residential	Commercial	Total				
2022	220	195	415				
2023	1,118	673	1,791				
2024	2,267	1,260	3,527				
2025	3,425	1,935	5,360				
2026	4,503	2,594	7,097				
2027	5,519	3,322	8,841				
2028	6,661	4,038	10,699				
2029	7,776	4,933	12,709				
2030	9,076	5,839	14,915				
2031	10,247	7,096	17,343				
2032	11,539	8,326	19,865				
2033	12,878	9,691	22,569				
2034	14,246	11,185	25,431				
2035	15,648	12,836	28,484				

Table 75. Baseline Light-Duty Electric Vehicle Energy Forecast<sup>41</sup>

The data in Table 75 was used to create the graph in Figure 46: Light-Duty Electric Vehicle Energy Forecasts on page 3-20.

<sup>&</sup>lt;sup>41</sup> Ibid.

# City of Alameda Electric Vehicle Demand Forecast

Table 76 lists the forecast for additional capacity required for increasing EV charging for the City of Alameda. The City of Alameda forecasts 66.18 MW of capacity for 2045, thus EV charging represents approximately 30 percent of that total. Similar projections can be assumed for the other members over the planning period.

Year	MW	Year	MW	Year	MW
2023	0.29	2031	5.79	2039	14.14
2024	0.74	2032	6.68	2040	15.17
2025	1.24	2033	7.60	2041	16.18
2026	1.84	2034	8.56	2042	17.18
2027	2.52	2035	9.54	2043	18.18
2028	3.29	2036	11.04	2044	19.16
2029	4.14	2037	12.08	2045	20.14
2030	4.95	2038	13.11	_	_

Table 76. City of Alameda EV Demand Forecast

# E4. THE GEYSERS GEOTHERMAL FORECASTS

Table 77 details the annual gross and net energy generation of the Geysers Geothermal Plant 1 (Units 1 and 2) and Plant 2 (only Unit 4). Notice that, while not steady, generation decreases over time. Plant 1's auxiliary load varies from 5.6 MW to 7.5 MW; Plant 2's auxiliary load remains constant at 2.58 MW.

	Plant 1		Pla	nt 2	Plants 1 & 2 Combined		
Year	Gross GWh	Net GWh	Gross GWh	Net GWh	Gross GWh	Net GWh	
2022	496.3	452.7	300.2	281.4	796.5	734.1	
2023	503.0	446.1	335.5	314.1	838.4	760.2	
2024	503.1	441.0	331.8	310.4	834.9	751.4	
2025	441.7	387.0	326.5	305.1	768.2	692.2	
2026	499.2	437.3	322.2	300.8	821.4	738.1	
2027	498.0	436.1	318.1	296.7	816.0	732.7	
2028	498.1	436.0	261.7	256.4	759.8	692.4	
2029	495.5	433.6	310.0	288.6	805.5	722.2	
2030	495.6	433.5	306.1	284.8	801.8	718.3	
2031-	435.1	380.5	302.4	281.0	737.5	661.5	
2032	493.2	431.1	299.5	278.1	792.7	709.2	
2033	490.6	428.7	295.1	273.7	785.7	702.4	
2034	489.4	427.5	252.3	233.8	741.7	661.3	
2035	488.2	426.3	288.2	266.8	776.4	693.1	
2036	488.3	426.3	285.6	264.2	773.9	690.4	
2037	428.7	374.1	281.5	260.2	710.3	634.3	
2038	484.6	422.7	239.5	218.1	724.1	640.8	
2039	483.5	421.5	235.7	214.3	719.1	635.8	
2040	483.6	421.5	203.3	184.6	687.0	606.1	
2041	481.1	419.2	228.4	207.0	709.5	626.2	
2042	481.3	419.2	224.9	203.5	706.1	622.7	
2043	422.6	367.9	221.5	200.1	644.0	568.0	
2044	479.0	416.9	218.8	197.3	697.8	614.2	
2045	476.5	414.6	215.0	193.6	691.5	608.2	
2046	475.4	413.5	230.3	211.0	705.6	624.5	

Table 77. The Geysers Geothermal Plants 1 & 2 Annual Energy Forecasts

Table 78 details the four-year monthly capacity forecast for the Geysers Geothermal Plant 1 (Units 1 and 2) and Plant 2 (only Unit 4)—the average capacity that each plant is capable of generating.

Month	Plant 1	MW	Plant	2 MW	Total	MW	Month	Plant 1	L MW	Plant	2 MW	Total	MW
-Year	Gross	Net	Gross	Net	Gross	Net	-Year	Gross	Net	Gross	Net	Gross	Net
Jan-23	61.0	55.4	40.9	38.3	101.9	93.7	Jan-25	60.7	53.2	39.8	37.2	100.5	90.4
Feb-23	61.0	55.4	40.8	38.3	101.8	93.7	Feb-25	60.7	53.2	39.8	37.2	100.4	90.4
Mar-23	61.0	55.4	40.8	38.2	101.8	93.6	Mar-25	60.7	53.2	39.7	37.1	100.4	90.3
Apr-23	61.0	55.4	40.8	38.2	101.7	93.5	Apr-25	0.0	0.0	39.7	37.1	39.7	37.1
May-23	61.0	53.5	40.7	38.1	101.7	91.6	May-25	60.7	53.2	39.6	37.0	100.3	90.2
Jun-23	60.9	53.4	40.7	38.1	101.6	91.5	Jun-25	60.6	53.1	39.6	37.0	100.2	90.1
Jul-23	60.9	53.4	40.6	38.0	101.6	91.5	Jul-25	60.6	53.1	39.5	36.9	100.2	90.1
Aug-23	60.9	53.4	40.6	38.0	101.5	91.4	Aug-25	60.6	53.1	39.5	36.9	100.1	90.0
Sep-23	60.9	53.4	40.5	37.9	101.4	91.3	Sep-25	60.6	53.1	39.4	36.9	100.1	90.0
Oct-23	60.9	53.4	40.5	37.9	101.4	91.3	Oct-25	60.6	53.1	39.4	36.8	100.0	89.9
Nov-23	60.9	53.4	40.4	37.8	101.3	91.2	Nov-25	60.6	53.1	39.4	36.8	99.9	89.8
Dec-23	60.9	53.4	40.4	37.8	101.3	91.2	Dec-25	60.6	53.1	39.3	36.7	99.9	89.8
Jan-24	60.9	53.4	40.3	37.8	101.2	91.1	Jan-26	60.6	53.1	39.3	36.7	99.8	89.7
Feb-24	60.8	53.3	40.3	37.7	101.1	91.1	Feb-26	60.5	53.0	39.2	36.6	99.8	89.7
Mar-24	60.8	53.3	40.3	37.7	101.1	91.0	Mar-26	60.5	53.0	39.2	36.6	99.7	89.6
Apr-24	60.8	53.3	40.2	37.6	101.0	90.9	Apr-26	60.5	53.0	39.1	36.6	99.7	89.6
May-24	60.8	53.3	40.2	37.6	101.0	90.9	May-26	60.5	53.0	39.1	36.5	99.6	89.5
Jun-24	60.8	53.3	40.1	37.5	100.9	90.8	Jun-26	60.5	53.0	39.1	36.5	99.6	89.5
Jul-24	60.8	53.3	40.1	37.5	100.9	90.8	Jul-26	60.5	53.0	39.0	36.4	99.5	89.4
Aug-24	60.8	53.3	40.0	37.4	100.8	90.7	Aug-26	60.5	53.0	39.0	36.4	99.4	89.4
Sep-24	60.8	53.3	40.0	37.4	100.7	90.6	Sep-26	60.5	53.0	38.9	36.3	99.4	89.3
Oct-24	60.7	53.2	39.9	37.3	100.7	90.6	Oct-26	60.4	52.9	38.9	36.3	99.3	89.2
Nov-24	60.7	53.2	39.9	37.3	100.6	90.5	Nov-26	60.4	52.9	38.8	36.3	99.3	89.2
Dec-24	60.7	53.2	39.8	37.3	100.6	90.5	Dec-26	60.4	52.9	38.8	36.2	99.2	89.1

Table 78. The Geysers Geothermal Plants 1 & 2 Four-Year Monthly Capacity Forecasts



# Commission Staff Report – DRAFT

### COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** NCPA Preliminary Studies and Investigations Procedure; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members.

#### AGENDA CATEGORY: Discussion/Action

FROM:	Michael DeBortoli		METHOD OF	METHOD OF SELECTION:				
	Assistant General Manager		N/A	N/A				
Division:	Generation Servi	ces	lf other, please des	If other, please describe:				
Department:	Generation Servi	ces						
	MEMBERS:							
	All Members	$\boxtimes$	City of Lodi		City of Shasta Lake			
Alameda N	Iunicipal Power	□ c	ity of Lompoc		City of Ukiah			
San Frar	ncisco Bay Area Rapid Transit	Circle	ty of Palo Alto		Plumas-Sierra REC			
	City of Biggs	□ C	ity of Redding		Port of Oakland			
	City of Gridley		ty of Roseville		Truckee Donner PUD			
Cit	y of Healdsburg		of Santa Clara		Other			
		lf oth	er, please specify					

#### **RECOMMENDATION:**

Approve Resolution 24-XX for Commission approval of the NCPA Preliminary Studies and Investigations Procedure (GS-201), establishing a process for the use of funds in the Preliminary Studies and Investigations (PS&I) budget account, including the requirements for project evaluation approvals, funds tracking, and reimbursement.

#### BACKGROUND:

On March 23, 2023 the NCPA Commission directed NCPA staff to establish a Preliminary Studies and Investigations (PS&I) budget account to fund activities associated with researching and/or evaluating new projects that may be of interest to NCPA Members. The Commission also directed NCPA staff to establish a procedure for the use of these funds.

NCPA staff is now seeking approval of the completed Preliminary Studies and Investigations Procedure (GS-201). As requested by the NCPA Commission, this procedure details the responsibilities and process for utilizing funds from the PS&I budget account. This procedure is applicable to any research or development project that is not specifically connected to an existing NCPA Phase II agreement.

#### FISCAL IMPACT:

There are no fiscal impacts associated with the development of this procedure. As detailed in the procedure, NCPA staff will seek Commission approval prior to spending any funds from the PS&I Budget Account.

#### SELECTION PROCESS:

Approval of this procedure does not commit NCPA to any expenditure of funds. As detailed in the procedure, NCPA staff will seek Commission approval prior to moving forward with further evaluation of any potential projects. Work will be awarded following NCPA's standard procurement policies and procedures.

#### ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

#### **COMMITTEE REVIEW:**

Pending Committee review and approval.

AFTER FACILITIES APPROVAL: On January 6, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

January 18, 2024 Page 3

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments:

- Resolution 24-XX
- GS-201 Preliminary Studies and Investigations Procedure

#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE NCPA PRELIMINARY STUDIES AND INVESTIGATIONS PROCEDURE (GS-201)

#### (reference Staff Report #XXX:24)

WHEREAS, on March 23, 2023 the NCPA Commission directed NCPA staff to establish a Preliminary Studies and Investigations (PS&I) budget account to fund activities associated with researching and/or evaluating new projects that may be of interest to NCPA Members. The Commission also directed NCPA staff to establish a procedure for the use of these funds; and

WHEREAS, NCPA staff have completed the Preliminary Studies and Investigations Procedure (GS-201). This procedure details the responsibilities and process for utilizing funds from the PS&I budget account; and

WHEREAS, NCPA staff is now seeking approval of the completed Procedure, to apply to any research or development project that is not specifically connected to an existing NCPA Phase II agreement; and

WHEREAS, On January 6, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval; and

WHEREAS, This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency approves the NCPA Preliminary Studies and Investigations Procedure (GS-201), establishing a process for the use of funds in the Preliminary Studies and Investigations (PS&I) budget account, including the requirements for project evaluation approvals, funds tracking, and reimbursement.

	PASSED, ADOPTED and APPROVED this	_ day of	, 2024, by the following vote on
roll call	:		

	<u>Vote</u>	Abstained	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR ATTEST:

CARRIE POLLO ASSISTANT SECRETARY

NORTHERN CALIFORNIA POWER AGENCY	Generation Services Procedures GS-201
Rev. 0	Preliminary Studies and Investigations Use Procedure
Date Approved:	Date First Issued:

# **Table of Contents**

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## 1.0 PURPOSE

At the Commission direction during the March 2023 meeting, NCPA has established a Preliminary Studies and Investigations (PS&I) budget account to fund the activities associated with researching and/or evaluating new projects that might be of interest to the Members. The Commission also provided direction that NCPA is to establish a procedure for the use of the funds in the account. This procedure is developed to meet the Commission objective and will provide for the requirements of project study approvals, funds tracking, and reimbursement.

# 2.0 SCOPE

This procedure is applicable to any studies or project investigation that is not specifically connected to an existing NCPA Phase II agreement that utilizes funds from the Preliminary Studies and Investigations budget account.

## 3.0 **DEFINITIONS**

## 4.0 **RESPONSIBILITIES**

- 4.1 The Assistant General Manager of Generation Services will oversee the program. This role will ensure that the studies and investigations do not begin until approvals are obtained and ensure each step does not progress without subsequent approvals. Approvals are detailed in 5.2, below.
- 4.2 The Director of Engineering will be responsible for managing each of the project studies, ensuring that proper accounting codes are in place. This role will report back to the Facilities Committee after each authorized study step. The Director of Engineering will work with the Assistant Controller to establish the necessary account codes for tracking expenditures for any initial study packages approved by the Commission.
- 4.3 The Assistant Controller will be responsible for establishing account codes for each study project. The expenditures will be traceable across multiple years for member reimbursement should the project proceed. This role will produce reports as needed showing the study expenditures, vendor(s), and member responsibility. At minimum, once each fiscal year, the Assistant Controller will prepare a report summarizing all open study projects and the funds expended

## 5.0 PROCEDURE

5.1 Conceptual Projects. Identify a conceptual project and present it to the Director of Engineering for consideration. The Director of Engineering will evaluate the project to determine whether it has any potential beneficial or strategic uses for NCPA and/or its Members. At this stage, the evaluation is not a financial model or any other objective measure. The evaluation is purely subjective and conceptual in

nature. The Director of Engineering will then seek a recommendation from the Facilities Committee for Commission approval to proceed investigating the conceptual projects, in an amount not to exceed \$XYZ, using funds from the Preliminary Studies and Investigations (PS&I) budget account.

- 5.2 Study Package. Upon successful completion of the evaluation, the Director of Engineering will develop a study package. The study package will include a study plan road map with estimated study costs. The Director of Engineering will present the conceptual projects and any study costs. The Director of Engineering will then seek a recommendation from the Facilities Committee for Commission approval to proceed investigating the conceptual projects, in an amount not to exceed \$XYZ, using funds from the Preliminary Studies and Investigations (PS&I) budget account.
- 5.3 Study Package Results. Once the approved initial study package is concluded, the Director of Engineering will provide a report to the Facilities Committee detailing the results of the initial study. This report will include the study results, costs expended for all completed steps thus far, and NCPA staff recommendations as to whether to proceed to the next step or to stop further study. If recommended to proceed to the next step, subsequent approvals will follow the process outlined in 5.2, above. Additional funds may be sought at this point if needed.
- 5.4 Phase II Agreement. Upon completion of the study package, if a recommendation is made to proceed with the project, a Phase II agreement will be prepared for those Members interested in participating. The corresponding Phase II budget will include a funding allocation to reimburse the Preliminary Studies and Investigations account with the moneys that have been spent on the study plan. Approvals at this stage will follow NCPA's standard procurement policies and procedures for project approvals.

# A. VERSION HISTORY

No.	Explanation	Date	Ву
0	Procedure created	4/28/2023	Michael DeBortoli

# B. APPROVALS

Approved By	Signature	Date
Jeremy Lawson – Director of Engineering, Generation Services		
Sondra Ainsworth – Treasurer Controller. Administrative Services		
Michael DeBortoli – Assistant General Manager, Generation Services		
Monty Hanks – Assistant General Manager, Administrative Services		
Randy Howard – General Manager		

# C. DISTRIBUTION

Name	Date
Michael DeBortoli, Assistant General Manager, Generation Services	
Sondra Ainsworth – Treasurer Controller. Administrative Services	
Monty Hanks – Assistant General Manager, Administrative Services	
Randy Howard – General Manager	



# Commission Staff Report – DRAFT

### COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** NCPA Preliminary Studies and Investigations Evaluation Approvals; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members.

#### AGENDA CATEGORY: Discussion/Action

FROM: Michael DeBortoli		METHOD OF	SEL	ECTION:		
	Assistant General Manager		N/A			
Division: Generation Services		lf other, please des	cribe:	* *		
Department:	Generation Servi	ces				
	MEMBERS:					
	All Members	$\boxtimes$	City of Lodi		City of Shasta Lake	
Alameda M	Aunicipal Power	Ci	ty of Lompoc		City of Ukiah	
San Frar	ncisco Bay Area Rapid Transit	City	y of Palo Alto		Plumas-Sierra REC	
	City of Biggs	Cit	ty of Redding		Port of Oakland	
	City of Gridley	□ City	y of Roseville		Truckee Donner PUD	
Cit	y of Healdsburg	□ City o	f Santa Clara		Other	
		lf othe	er, please specify			

#### **RECOMMENDATION:**

Approve Resolution 24-XX for Commission approval to proceed with evaluations for two conceptual transmission projects, for an amount not to exceed \$102,000, to be funded from the Preliminary Studies and Investigations (PS&I) budget account.

#### BACKGROUND:

On March 23, 2023 the NCPA Commission directed NCPA staff to establish a Preliminary Studies and Investigations (PS&I) budget account to fund activities associated with researching and/or evaluating new projects that may be of interest to NCPA Members. The Commission also directed NCPA staff to establish a procedure for the use of these funds. The corresponding Preliminary Studies and Investigations Procedure (GS-201) states that NCPA will present any prospective projects to the Commission for approval prior to spending funds from the PS&I Budget Account for project evaluation activities.

NCPA staff is now seeking approval from the Commission to spend funds to further evaluate two conceptual transmission projects. The prospective projects are summarized below.

#### Conceptual Transmission Project - NCPA Geothermal Project to City of Healdsburg

This project would be a screening level study for a new transmission source for serving the City of Healdsburg. NCPA has outlined two potential scenarios for the vendor to review as a part of the project evaluation. Scenario One would operate in parallel with the existing system, while the Scenario Two would use the existing system as a backup only. The results of this study will guide if the interconnection has merit and would be recommended to proceed with further development studies.

# <u>Conceptual Transmission Project – NCPA Hydroelectric Project to City of Santa Clara (Bellota to Newark)</u>

This project would be a screening level study for a new transmission source between the Bellota area and Newark substation, for serving Silicon Valley Power. NCPA has outlined two potential scenarios for the vendor to review as a part of the project evaluation: Scenario One would lift the leads of the Collierville and New Melones powerhouses and put them on a new dedicated line to Newark, while Scenario Two would create a new transmission path between Bellota and Newark. The results of this study will guide if the interconnection has merit and would be recommended to proceed with further development studies.

#### FISCAL IMPACT:

Costs associated with further evaluation for the Healdsburg New Service Project and Silicon Valley Power New Service Project are shown below. Purchase order(s) issued for work related to these evaluations will reference the terms and conditions of the Multi-Task Agreement executed between NCPA and Utility System Efficiencies, Inc. and will be issued following NCPA procurement policies and procedures.

- NCPA Geothermal Project to City of Healdsburg Evaluation Cost = \$31,500
- NCPA Hydroelectric Project to City of Santa Clara Evaluation Cost = \$36,000
- Contingency Funds = \$35,000
- Not to Exceed Authorization Total = \$102,000

January 18, 2024 Page 3

This work will be funded through the Preliminary Studies and Investigations (PS&I) budget account.

#### **SELECTION PROCESS:**

In accordance with NCPA's procurement policies and procedures, due to the dollar amount of this work, Formal Bidding was not required. NCPA plans to work with Utility System Efficiencies, Inc. to complete further evaluation of these prospective projects. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

#### ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

#### **COMMITTEE REVIEW:**

Pending Committee review and approval.

AFTER FACILITIES APPROVAL: On January 6, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments:

• Resolution 24-XX

#### **RESOLUTION 24-XX**

#### **RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING EVALUATIONS FOR CONCEPTUAL TRANSMISSION PROJECTS**

#### (reference Staff Report #XXX:24)

WHEREAS, on March 23, 2023 the NCPA Commission directed NCPA staff to establish a Preliminary Studies and Investigations (PS&I) budget account to fund activities associated with researching and/or evaluating new projects that may be of interest to NCPA Members. The Commission also directed NCPA staff to establish a procedure for the use of these funds. The corresponding Preliminary Studies and Investigations Procedure (GS-201) states that NCPA will present any prospective projects to the Commission for approval prior to spending funds from the PS&I Budget Account for project evaluation activities; and

WHEREAS, NCPA staff is now seeking approval from the Commission to spend funds to complete screening level studies to further evaluate two conceptual transmission projects – NCPA Geothermal Project to City of Healdsburg and NCPA Hydroelectric Project to City of Santa Clara. The results of these studies will guide if the interconnection has merit and would be recommended to proceed with further development status; and

WHEREAS, On January 6, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval; and

WHEREAS, This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency approves to move forward with evaluations for two conceptual transmission projects, for an amount not to exceed \$102,000, to be funded from the Preliminary Studies and Investigations (PS&I) budget account.

PASSED, ADOPTED and APPROVED this _	day of	, 2024, by the following vote on
roll call:	-	

	<u>Vote</u>	Abstained	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR

ATTEST:

CARRIE POLLO ASSISTANT SECRETARY



# Commission Staff Report – DRAFT

## COMMISSION MEETING DATE: January 18, 2024

**SUBJECT:** Fourth Amendment to Resolution 21-109 NCPA Geothermal Plant 2, Unit 4 Overhaul Project; Applicable to the following: NCPA Geothermal Facility

AGENDA CATEGORY: Discussion/Action

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	Competitive Pricing Process
Division:	Generation Services	If other, please describe:
Department:	Geothermal	

IMPACTED MEMBERS:				
All Members		City of Lodi	$\boxtimes$	City of Shasta Lake $\Box$
Alameda Municipal Power	$\boxtimes$	City of Lompoc	$\boxtimes$	City of Ukiah 🛛
San Francisco Bay Area Rapid Transit		City of Palo Alto		Plumas-Sierra REC 🛛 🖂
City of Biggs	$\boxtimes$	City of Redding		Port of Oakland
City of Gridley	$\boxtimes$	City of Roseville	$\boxtimes$	Truckee Donner PUD
City of Healdsburg	$\boxtimes$	City of Santa Clara	$\boxtimes$	Other 🛛
		If other, please specify		Turlock
Ť				

#### **RECOMMENDATION:**

Approval of the Fourth Amendment to Resolution 21-109 for the NCPA Geothermal Plant 2 Unit 4 Overhaul Project increasing the total not-to-exceed amount of this project from \$7,400,000 to \$7,681,216 for settlement of the final invoice to close out the project.

#### BACKGROUND:

On December 2, 2021, the NCPA Commission approved the Geothermal Plant 2 Unit 4 Overhaul Project (Resolution 21-109) for an amount not to exceed \$3,500,000. NCPA hired Reliable Turbine Services, LLC (RTS) to complete the work for the project. Subsequent Amendments to the original Resolution were approved by the Commission in November 2022, April 2023, and October 2023, increasing the project budget and modifying the Scope of Work due to additional damage discovered by RTS.

During the course of work, numerous issues arose, resulting in extra delays and financial impacts. While NCPA was tracking and monitoring these, some of the final expenditures lagged behind, causing the work to run over the authorized amount. Factors that affected the project include unexpected findings on the row 2 turbine blade covers, extensive effort on the lube oil cleaning and flushing, and additional demobilizations due to a plant crane failure.

The work is now complete and the unit was returned to service on December 19, 2023. NCPA staff is now requesting to increase the project not to exceed amount from \$7,400,000 to \$7,681,216 to account for the remaining charges incurred over the course of this project.

#### FISCAL IMPACT:

Throughout this project, a number of change orders to the agreement with RTS were executed, resulting in an updated total project cost of \$7,312,440.43. The proposed Fourth Amendment to Resolution 21-109 would increase the not to exceed amount by \$281,216, for an updated total project authorization of \$7,681,216.

This additional work will be funded from the cancelled Intertie Switch Project, which was budgeted at \$1,750,000. Of that, \$990,725 was previously authorized for additional turbine related work related to this project. There remains sufficient funds from this project to cover the remaining costs of the work.

#### **SELECTION PROCESS:**

In 2022, NCPA solicited competitive bids from multiple vendors to perform various scopes required for this project. NCPA bid these specific scopes of work consistent with NCPA procurement policies and procedures. The work is now complete and approval of this Amendment will allow NCPA to pay the final invoice for the vendor and close out the project.

#### **ENVIRONMENTAL ANALYSIS:**

These activities are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b),15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA

January 18, 2024 Page 3

Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary.

## **COMMITTEE REVIEW:**

Pending Committee review and approval.

AFTER FACILTIES APPROVAL: On January 3, 2024 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachment:

• Fourth Amended Resolution 21-109

#### **RESOLUTION 21-109**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE FOURTH AMENDMENT TO NCPA GEOTHERMAL PLANT 2 UNIT 4 OVERHAUL PROJECT RESOLUTION

#### (reference Staff Report #xxx:24)

WHEREAS, on December 2, 2021, the NCPA Commission approved the Geothermal Plant 2 Unit 4 Overhaul Project (Resolution 21-109) for an amount not to exceed \$3,500,000. NCPA hired Reliable Turbine Services, LLC (RTS) to complete the work for the project; and

WHEREAS, subsequent Amendments to the original Resolution were approved by the Commission in November 2022, April 2023, and October 2023 to increase the project budget and modify the Scope of Work due to additional damage discovered by RTS; and

WHEREAS, during the course of work, numerous issues arose resulting in extra delays and financial impacts. While NCPA was tracking and monitoring these, some of the final expenditures lagged behind, causing the work to run over the authorized amount; and

WHEREAS, the work is now complete and the unit was returned to service on December 19, 2023. NCPA staff is now requesting to increase the from \$7,400,000 to \$7,681,216 to account for the remaining charges incurred over the course of this project; and

WHEREAS, these activities are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b),15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes approval of the Fourth Amendment to Resolution 21-109 for the NCPA Geothermal Plant 2 Unit 4 Overhaul Project, increasing the total not-to-exceed amount of this project from \$7,400,000 to \$7,681,216 for settlement of the final invoice to close out the project.

PASSED, ADOPTED and APPROVED this _	day of	, 2024, by the following vote
on roll call:		

	Vote	<u>Abstained</u>	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			
Redding Roseville Santa Clara Shasta Lake Truckee Donner Ukiah Plumas-Sierra			



# Commission Staff Report – DRAFT

## COMMISSION MEETING DATE: January 5, 2024

**SUBJECT:** NCPA Geothermal Plant 1, Unit 2 Turbine Overhaul Project; Applicable to the following: NCPA Geothermal Facility

### AGENDA CATEGORY: Discussion/Action

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	Competitive Pricing Process
Division:	Generation Services	If other, please describe:
Department:	Geothermal	

IMPACTED MEMBERS:					
All Members		City of Lodi	$\boxtimes$	City of Shasta Lake	
Alameda Municipal Power	$\boxtimes$	City of Lompoc	$\boxtimes$	City of Ukiah	$\boxtimes$
San Francisco Bay Area Rapid Transit		City of Palo Alto		Plumas-Sierra REC	$\boxtimes$
City of Biggs		City of Redding		Port of Oakland	
City of Gridley	$\boxtimes$	City of Roseville	$\boxtimes$	Truckee Donner PUD	
City of Healdsburg	$\boxtimes$	City of Santa Clara	$\boxtimes$	Other	
		If other, please specify			

#### **RECOMMENDATION:**

Approve Resolution 24-XX authorizing the Geothermal (Geo) Plant 1, Unit 2 Turbine Overhaul Project and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project in accordance with NCPA purchasing policies and procedures, including approval for the turbine work to be awarded on a sole-source basis, without further approval by the Commission, for a total not to exceed \$6,500,000, and authorizing the use of previously collected Geo Decommissioning Reserve funds to fund the project. These funds are to be replenished by the Project Participants over a three-year period through the normal budgeting process.

#### BACKGROUND:

In March 2023, Geo Plant 1, Unit 1 was taken offline for routine Stretford maintenance. During the course of inspections, NCPA staff found evidence of damage to the steam strainer. Out of an abundance of caution, NCPA also completed an inspection of the steam strainer in Unit 2. No signs of damage were discovered, and after completing routine maintenance, Unit 2 was returned to service.

In May 2023, NCPA hired Reliable Turbine Services, LLC (RTS) to perform a Steam Path Inspection of Unit 1. The Unit 1 rotor was found to have severe wear on the L-0 or last stage turbine blades. The turbine rotor and diaphragms were pulled and sent offsite for refurbishment. It was determined that the L-0 blades could not be repaired, and new blades would need to be manufactured. Because both units were installed at the same time and had similar operating conditions, NCPA staff was concerned about the condition of the blades in Unit 2. So, NCPA staff prepared to complete a thorough visual inspection at the next available opportunity, and to closely monitor the Unit 2 turbine vibration data until an examination could take place.

In December 2023, during a planned transmission line outage scheduled by Pacific Gas and Electric (PG&E), RTS was able to perform a nondestructive visual inspection on the Unit 2 turbine rotor L-0 blades. The visual inspection revealed significant wear on the L-0 blades. As with Unit 1, RTS recommends that the L-0 blades be replaced. Due to the high probability of a catastrophic failure, RTS does not recommend putting Unit 2 back into service until the blade replacement is complete. NCPA consulted with Siemens Energy USA, Inc. for a second opinion. Siemens agreed with RTS' findings that the blades must be replaced and the unit should remain offline until this work is complete. As with the Unit 1 blades, the Unit 2 blades will need to be reverse-engineered.

Plant 1, Unit 2 was scheduled for a planned outage in March 2024. Delaying work to repair the blades until the original planned outage in March poses a safety concern from the deteriorated state of the blades and will likely result in this outage extending into the critical summer months. Therefore, the recommended course of action is to seek immediate authority to initiate the outage and take advantage of the knowledge, staff, and resources working on Plant 1, Unit 1.

The Scope of Work for the proposed Plant 1, Unit 2 Overhaul includes the following:

• <u>Turbine Overhaul and Generator Testing</u> – The testing is required to ensure the generator maintenance schedule can stay consistent with the turbine maintenance schedule. The turbine overhaul includes identified items such as the L-0 blades and service of Row 4 blades.

- <u>Transportation and Insurance</u> Required to send the Unit 2 turbine rotor and diaphragms off site for refurbishment.
- <u>Unit 2 GSU Transformer Overhaul</u> Installation of new bushings, seals, and replacement of transformer oil. This unit currently has several oil leaks that need to be serviced.
- <u>Balance of Plant Work</u> Maintenance to Plant Pumps, Motors, Cooling Tower equipment, and Stretford System. These systems are critical to the reliability of the plant and require a full plant outage on common systems. NCPA is being proactive on the timing to reduce future unplanned outages.
- <u>Lakeville 230kV Line Repairs</u> It was identified in the Western line assessment report that the last patch installed was intended to be a temporary measure. A permanent fix is required to ensure reliability of this line and for wildfire mitigation.

Going forward, NCPA's Geothermal staff will begin implementing a new outage task to inspect and borescope the turbines regularly to monitor the degradation and optimally time the outage schedules. These will be adjusted as needed based on conditions discovered.

#### FISCAL IMPACT:

The total cost is anticipated not to exceed \$6,500,000. A breakdown of the project costs is shown in the table below.

Description	Cost		
Unit 2 Turbine Rotor Overhaul and Generator	\$4,500,000		
Reset			
Unit 2 GSU Transformer Overhaul	\$300,000		
Transportation and Insurance	\$100,000		
Additional Balance of Plant Work	\$200,000		
Incidentals (scaffold, etc)	\$400,000		
Lakeville 230KV Line Repairs	\$500,000		
Contingency	\$500,000		
Total	\$6,500,000		

Funding for the Unit 2 Overhaul may be accomplished in several ways. Funding options are shown in the table below.

Description	Cost		
Geo Decommissioning Reserve	\$6,500,000		
Other Options			
Combined Special Geo Reserve	\$1,500,000		
Maintenance Reserve	\$3,589,000		
Defer or Reduced Project Funding	\$1,500,000		
Total	\$6,589,000		

Staff is recommending that \$6,500,000 for the Geothermal Plant 1, Unit 2 Overhaul Project be spent from the Geo Decommissioning Reserve and replenished over a three-year period through the normal budget process. Staff will recommend a budget augmentation of \$6,500,000 at the January 18, 2024 regularly scheduled Commission meeting with no additional collections required in Fiscal Year 2024.

The Projected cash balance for the Decommissioning Reserve at June 30, 2024 is approximately \$1.2 million. NCPA will fund the balance of the repair costs by liquidating reserve investments as necessary when the expenditures are invoiced..

The Fiscal Year 2025 budget impact of a three-year payback period of the \$6.5 million into the reserve would be as follows:

2024 Budget			
Decommissioning Reserve Collection	\$1,578,823		
Debt Service Collection	\$3,482,198		
Total 2024 Decommissioning and Deb Svc	\$5,061,021		
2025 Budget			
Decommissioning Reserve Collection	\$2,417,081		
Year One Reserve Reimbursement	\$2,166,667		
Debt Service Collection	\$ 0		
Total 2025 Decommissioning and Deb Svc	\$4,583,748		
Net Decrease to 2025 Budget	\$ 477,273		

The Combined Special Geo Reserve balance is currently invested with a maturity date of November 7, 2025. The sale of that investment would result in a loss and is not recommended.

### SELECTION PROCESS:

RTS is currently conducting work for Unit 1 and with the urgency needed to begin work on Unit 2, both units will be undergoing similar maintenance at the same time. These units are in the same building and use the same crane, access, laydown, and contractor office space. Attempting to complete this work utilizing two separate contractors would result in significant delay of work claims from both and would result in inefficiencies coordinating the balance of project schedules. For this reason, NCPA staff is recommending a sole source award to RTS to complete the work for the Unit 2 turbine.

For other non-turbine work, NCPA is currently preparing to solicit competitive bids from multiple vendors to perform the services required for this project. NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

## ENVIRONMENTAL ANALYSIS:

These activities are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b),15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary.

#### COMMITTEE REVIEW:

AFTER FACILITIES APPROVAL: On January 3, 2024, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

January 5, 2024 Page 5

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments:

• Resolution 24-XX

#### **RESOLUTION 24-XX**

#### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE GEOTHERMAL PLANT 1, UNIT 2 TURBINE OVERHAUL PROJECT

#### (reference Staff Report #XXX:24)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains on behalf of the project owners a Geothermal facility near Middletown, CA consisting of two power plants with containment areas, 78 steam production and injection wells; and

WHEREAS, in December 2023, NCPA's Geothermal (Geo) Plant 1, Unit 2 was taken offline for an inspection of the turbine rotor and during the course of inspection by Reliable Turbine Services, LLC (RTS), the L-0 turbine blades were found to be severely worn; and

WHEREAS, RTS has recommended that the L-0 blades be replaced. Due to the high probability of a catastrophic failure, RTS does not recommend putting Unit 2 back into service until the blade replacement is complete; and

WHEREAS, the total cost is anticipated not to exceed \$6,500,000. Staff is recommending that funds of \$6,500,000 for the Geothermal Plant 1, Unit 2 Overhaul Project be redirected from the Geo Decommissioning Reserve and replenished over a three-year period through the normal budget process. Staff will recommend a budget augmentation of \$6,500,000 at the January 18, 2024 regularly scheduled Commission meeting with no additional collections required in Fiscal Year 2024; and

WHEREAS, RTS is currently conducting work for Unit 1 and with the urgency needed to begin work on Unit 2, both units will be undergoing similar maintenance at the same time. Attempting to complete this work utilizing two separate contractors would result in significant delay of work claims from both and would result in inefficiencies coordinating the balance of project schedules. For this reason, NCPA staff is recommending a sole source award to RTS to complete the work for the Unit 2 turbine. For other non-turbine work, NCPA is currently preparing to solicit competitive bids from multiple vendors to perform the services required for this project; and

WHEREAS, on January 3, 2024, the Facilities Committee reviewed and approved the recommendation for Commission approval; and

WHEREAS, these activities are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b),15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the Geothermal (Geo) Plant 1, Unit 2 Turbine Overhaul Project and delegates authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project in accordance with NCPA purchasing policies and procedures, including approval for the turbine work to be awarded on a sole-source basis, without further approval by the Commission, for a total not to exceed \$6,500,000, and authorizing the use of previously collected Geo Decommissioning Reserve funds to fund the project. These funds are to be replenished by the Project Participants over a three-year period through the normal budgeting process.

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PASSED, ADOPTED and APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 2024, by the following vote on roll call:

	Vote	<b>Abstained</b>	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

JERRY SERVENTI CHAIR

ATTEST: CARRIE POLLO ASSISTANT SECRETARY