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# Facilities Committee Agenda

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**Date:** May 4, 2022  
**Subject:** NCPA Facilities Committee Meeting  
**Location:** NCPA, 651 Commerce Drive, Roseville, California 95678 / Conference Call  
**Time:** 9:00 am

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**\*\*In compliance with the Brown Act, you may participate via teleconference at one of the meeting locations listed below or attend at NCPA Headquarters. In either case, please: (1) post this Agenda at a publicly accessible location at the participation 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.\*\***

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

ALAMEDA MUNICIPAL PWR 2000 Grand St., Alameda, CA	BAY AREA RAPID TRANSIT 300 Lakeside Drive, Oakland, CA	CITY OF BIGGS 465 C Street, Biggs, CA
CITY OF GRIDLEY 685 Kentucky Street, Gridley, CA	CITY OF HEALDSBURG 401 Grove Street, Healdsburg, CA	CITY OF LODI 1331 S. Ham Lane, Lodi, CA
CITY OF LOMPOC 100 Civic Ctr. Plaza, Lompoc, CA	CITY OF PALO ALTO 250 Hamilton Avenue, 3 <sup>rd</sup> Floor Palo Alto, CA	PORT OF OAKLAND 530 Water Street, Oakland, CA
PLUMAS-SIERRA REC 3524 Mulholland Way, Sacramento CA	CITY OF REDDING 3611 Avtech Pkwy., Redding, CA	CITY OF ROSEVILLE 2090 Hilltop Circle, Roseville, CA
SILICON VALLEY POWER 881 Martin Ave., Santa Clara, CA	TURLOCK IRRIGATION DISTRICT 333 E. Canal Drive, Turlock, CA	CITY OF UKIAH 300 Seminary Ave., Ukiah, CA

*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 [www.ncpa.com](http://www.ncpa.com).*

*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 April 6, 2022 Facilities Committee meeting.
3. **All NCPA Facilities, Members, SCLPA – Kinectrics AES, Inc. MTPSA** – Staff is seeking a recommendation for Commission approval of a five-year Multi-Task Professional Services Agreement with Kinectrics AES, Inc. for generator testing and assessment services, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCLPA, and SCLPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. *(Commission Category: Consent; Sponsor: Hydro)*
4. **NCPA Geothermal Facility – GeothermEx, Inc. First Amendment to CSA** – Staff is seeking a recommendation for Commission approval of a First Amendment to the five-year Consulting Services Agreement with GeothermEx, Inc., increasing the not to exceed amount from \$225,000 to \$1,000,000, with no other changes to the contract terms and conditions, for continued use NCPA's Geothermal facility. All purchase orders will be issued following NCPA procurement policies and procedures. *(Commission Category: Consent; Geo)*
5. **NCPA Geothermal Facility – Steam Field Operations Forecast Report** – Staff is seeking a recommendation for Commission approval of the 2022 Steam Field Operations Forecast Report, including approval regarding the market power price at which to curtail the load at the NCPA Geothermal facilities, as the Geothermal Operating Protocol effective July 1, 2022, and remaining in effect until replaced by the Commission. *(Commission Category: Consent; Sponsor: Geo)*
6. **NCPA 2022 Wildfire Mitigation Plan** – Staff is seeking a recommendation for approval of the NCPA 2022 Wildfire Mitigation Plan, with updated revisions based on the qualified independent evaluators recommendations. *(Category: Consent; Sponsor: Generation Services Administration)*
7. **All NCPA Facilities, Members, SCLPA – Parker Landscape Development, Inc. First Amendment to MTGSA** – Staff is seeking a recommendation for Commission approval of a First Amendment to the Multi-Task General Services Agreement with Parker Landscape Development, Inc. for professional commercial landscape services, tree care, and special projects increasing the not to exceed amount to \$300,000 for continued use at NCPA all facilities owned and/or operated by NCPA, NCPA Members, by SCLPA, and SCLPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. *(Commission Category: Consent; Sponsor: Administrative Services)*



- 8. All NCPA Facilities, Members, SCLPA – TPR Enterprises, LLC dba EcoEngineers MTCSA –** Staff is seeking a recommendation for Commission approval of a five-year Multi-Task Consulting Services Agreement with TPR Enterprises, LLC dba EcoEngineers for Low Carbon Fuel Standard (LCFS) fuel pathway application, verification, and validation consulting services, with a not to exceed amount of \$350,000, for use by NCPA, NCPA Members, SCLPA, and SCLPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. *(Commission Category: Consent; Sponsor: Legislative & Regulatory)*
- 9. Approval of Letter of Agreement 22-SNR-02738 –** Staff will present and seek a recommendation for approval of Letter of Agreement 22-SNR-02738 (WAPA 2022 REC Program) between Western Area Power Administration (WAPA) and Northern California Power Agency (NCPA). *(Commission Category: Consent; Sponsor: Power Management)*
- 10. Approval of San Jose Clean Energy Services Agreement –** Staff will present and seek a recommendation for approval of a Services Agreement between San Jose Clean Energy and Northern California Power Agency for wholesale energy services. *(Commission Category: Discussion/Action; Sponsor: Power Management)*

### **INFORMATIONAL ITEMS**

- 11. New Business Opportunities –** Staff will provide an update regarding new business opportunities. *(Sponsor: Power Management)*
- 12. NCPA Geothermal Unit 3 Battery Energy Storage System (BESS) –** Staff will share an informational only presentation with the Committee regarding the development of a proposed battery energy storage system at NCPA Geo Plant 2. *(Sponsor: Geo)*
- 13. NCPA Generation Services Plant Updates –** Plant Staff will provide the Committee with an informational update on current plant activities and conditions. *(Sponsor: Generation Services)*
- 14. Planning and Operations Update –** Staff will provide an update on issues related to planning and operations. *(Sponsor: Power Management)*
- 15. Next Meeting –** The next Facilities Committee meeting is scheduled for June 1, 2022.

### **ADJOURNMENT**

JC/cp



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# Minutes – Draft

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**Date:** April 14, 2022  
**To:** NCPA Facilities Committee  
**From:** Carrie Pollo  
**Subject:** April 6, 2022 Facilities Committee Meeting Minutes

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- 1. Call Meeting to Order & Roll Call** – The meeting was called to order by Committee Chair Jiayo Chiang, (Lodi) at 9:08 am. A sign-in sheet was passed around. Attending via teleconference and/or on-line presentation were Alan Harbottle (Alameda), Mark Sorensen (Biggs), Danny Howard (Gridley), Melissa Price (Lodi), Shiva Swaminathan (Palo Alto), Mike Brozo (Plumas-Sierra), Nick Rossow (Redding), and Steve Hance, Monica Nguyen, and Bill Her (Santa Clara). Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Healdsburg, Lompoc, Port of Oakland, 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 March 2, 2022, regular and special Facilities Committee meetings.**

Motion: A motion was made by Brian Schinstock and seconded by Steve Hance recommending approval of the March 2, 2022 regular and special Facilities Committee meeting minutes. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Redding, Roseville, and Santa Clara. The motion passed.

- 3. All NCPA Facilities, Members, SCPPA – RADCO Communications, Inc. MTGSA** – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with RADCO Communications for microwave tower and communications systems maintenance services, with a not to exceed amount of \$2,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA currently has an agreement in place with RADCO Communications LLC which is expiring. RADCO is a specialized large-scale communications network vendor able to work on alignment of passive repeaters, erection of microwave towers, programming of communication equipment and other communication systems maintenance. NCPA has utilized this vendor in the past, and has a good working relationship with the vendor. 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 desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. NCPA does not have any agreements in place for similar services with additional vendors at this time. 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 Steve Hance and seconded by Jiayo Chiang recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with RADCO Communications LLC for microwave tower and communication system maintenance, 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. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. ABSTAIN = Redding. The motion passed.

4. **All NCPA Facilities, Members, SCPPA – DRS Marine, Inc. MTGSA** – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with DRS Marine for underwater maintenance and inspection services, with a not to exceed amount of \$2,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA currently has an agreement in place with DRS Marine, Inc., which is expiring. NCPA Hydro has utilized this vendor extensively in the past for power inlet trash rack cleaning at McKays Dam and a low-level outlet guard installation at Alpine Dam. DRS is very competitively priced and frequently a low bidder on 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 desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. NCPA has agreements in place for similar services with Global Diving and Salvage. 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 Brian Schinstock and seconded by Steve Hance recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with DRS Marine, Inc. for underwater maintenance and inspection 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. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. ABSTAIN = Redding. The motion passed.

5. **All NCPA Facilities, Members, SCPPA – TCB Industrial, Inc. MTGSA** – Staff provided background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with TCB Industrial for service of major mechanical systems, with a not to exceed amount of \$2,000,000, for use at all facilities owned and/or operated

by NCPA, NCPA Members, by SCPPA and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA currently has an agreement in place with TCB Industrial, Inc., which is expiring. NCPA has utilized this vendor in the past for a service water piping replacement at the LEC as well as outage assistance. TCB was also the low bidder to help with a new Howell-Bunger Valve liner replacement at the New Spicer Meadows Powerhouse. 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 desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. NCPA has agreements in place for similar services with Reliable Turbine Services, Voith US, Northwest Industrial, Andritz, Bay Valve, and Syblon Reid. 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 Steve Hance and seconded by Mark Sorensen recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with TCB Industrial, Inc. for mechanical systems maintenance, 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. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. ABSTAIN = Redding. The motion passed.

- 6. All NCPA Facilities, Members, SCPPA – Global Diving and Salvage, Inc. MTGSA – Staff** provided background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Global Diving for underwater maintenance and inspection services, with a not to exceed amount of \$2,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA currently has an agreement in place with Global Diving and Salvage, Inc., which is expiring. NCPA Hydro has utilized this vendor in the past for power tunnel inlet trash rack cleaning at McKays Dam and a low-level outlet inspection services at Utica Dam. 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 desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. NCPA has an agreement in place for similar services with DRS Marine, 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 by Steve Hance and seconded by Brian Schinstock recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Global Diving and Salvage, Inc. for underwater maintenance and inspection 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. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. ABSTAIN = Redding. The motion passed.

- 7. All NCPA Facilities, Members, SCPPA – RESA Service, LLC MTGSA – Staff** presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with RESA Service for transformer maintenance, switchgear

and engineering services, with a not to exceed amount of \$2,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

RESA Service, LLC is a relatively new vendor for NCPA. RESA was the successful bidder for a transformer overhaul project at the Geothermal Facility for which a single-task general services agreement was put into place. 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 desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects to increase the pool of qualified vendors for these types of services. NCPA has agreements in place for similar services with North American Substation Services (NASS), Kinectrics, and Transmission and Distribution Services (TDS). 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 Shiva Swaminathan and seconded by Mark Sorensen recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with RESA Service, LLC for transformer maintenance, switchgear and engineering 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. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. ABSTAIN = Redding. The motion passed.

- 8. All NCPA Facilities, Members, SCPPA – HDR Engineering, Inc. MTPSA –** Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Professional Services Agreement with HDR Engineering, Inc. for engineering services, 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. All purchase orders will be issued following NCPA procurement policies and procedures.

The current agreement with HDR Engineering, Inc. is expiring. NCPA has utilized this vendor in the past, and has a good working relationship with this vendor. 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 desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. NCPA has agreements in place for similar services with Black & Veatch Corporation, Power Engineers, Inc. and Worley Group, 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 by Steve Hance and seconded by Shiva Swaminathan recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with HDR Engineering, Inc. for engineering 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, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. ABSTAIN = Redding. The motion passed.

- 9. All NCPA Facilities, Members, SCPPA – Power Engineers, Inc. MTPSA –** Staff provided background information and was seeking a recommendation for Commission approval of a five-year

Multi-Task Professional Services Agreement with Power Engineers, Inc. for engineering services, 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. All purchase orders will be issued following NCPA procurement policies and procedures.

The current agreement with Power Engineers, Inc. is expiring. NCPA has utilized this vendor in the past, and has a good working relationship with this vendor. 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 desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. NCPA has agreements in place for similar services with Black & Veatch Corporation, HDR Engineering, Inc. and Worley Group, 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 by Shiva Swaminathan and seconded by Brian Schinstock recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with Power Engineers, Inc. for engineering 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, Palo Alto, Plumas-Sierra, and Roseville. ABSTAIN = Redding. The motion passed.

- 10. All NCPA Facilities, Members, SCPPA – Knights' Electric, Inc. MTGSA –** Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Knights' Electric, Inc. for miscellaneous electrical maintenance services, with a not to exceed amount of \$750,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

The current agreement with Knights' Electric, Inc. is expiring. NCPA has utilized this vendor in the past, and has a good working relationship with the vendor. 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 desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. NCPA has agreements in place for similar services with Coastal Mountain Electric, Contra Costa Electric, Inc. and Eaton Corporation. 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 Shiva Swaminathan and seconded by Steve Hance recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Knights' Electric, Inc. for electrical maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$750,000 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, Palo Alto, Plumas-Sierra, Roseville, and Santa Clara. ABSTAIN = Redding. The motion passed.

- 11. All NCPA Facilities, Members, SCPPA – Archer Energy Solutions, LLC MTCSA –** Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Consulting Services Agreement with Archer Energy Solutions, LLC for NERC



Cyber Security Supply Chain Management Services and other NERC CIP or Operations and Planning Standards related tasks, with a not to exceed amount of \$500,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPA, and SCPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

On October 1, 2020 NERC began enforcing NERC Standard CIP-013-1 “Cyber Security – Supply Chain Risk Management” for Registered Entities that Own and/or operate medium impact BES Cyber Systems. On October 1, 2022 the revised standard CIP-13-2 becomes enforceable. Additionally, NERC is currently developing revised version CIP-013-3; the effective date is unknown at this time. The goal of NERC Standard CIP-013 is to minimize the risk associated with procurement of vendor product and services. NCPA desires to develop a NERC CIP-013 Compliance Program even though NCPA currently does not have Medium Impact Cyber Systems.

NCPA issued a RFP for NERC Cyber Security Supply Chain Management Services on January 19, 2022. Archer Energy Solutions, LLC submitted a proposal for this RFP, and was the successful bidder. NCPA now desires to enter into an agreement with this vendor for these services. NCPA has two other agreements in place for similar services with Utility Services of Vermont, LLC and Utility System Efficiencies, Inc., but these services are not specific to NERC CIP-013 evaluation. 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. 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 Shiva Swaminathan and seconded by Steve Hance recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with Archer Energy Solutions, LLC for NERC Cyber Security Supply Chain Management Services and other NERC CIP or Operations and Planning Standards related tasks, 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 SCPA, and SCPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Redding, Roseville, and Santa Clara. The motion passed.

- 12. All NCPA Facilities, Members, SCPA – Stearns, Conrad, and Schmidt, Consulting Engineers, Inc. dba SCS Engineers MTCSA** – Staff provided background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Consulting Services Agreement with Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers for Low Carbon Fuel Standard (LCFS) fuel pathway application, verification, and validation consulting services, with a not to exceed of \$350,000, for use by NCPA, NCPA Members, SCPA, and SCPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA and 12 NCPA Members are currently registered reporting entities for the California Air Resources Board’s Low Carbon Fuel Standard (LCFS) program. The LCFS program is designed to decrease the carbon intensity of California’s transportation fuel pool and incentivize low-carbon and renewable fuel alternatives, including electricity. NCPA and participating Members are able to generate LCFS credits by reporting the use of alternative fuels, including electric vehicle (EV) charging at owned EV chargers, and NCPA Members with residential customers generate LCFS credits associated with an estimate of residential EV charging. LCFS credits can then be sold and the proceeds used to fund programs and projects that support transportation electrification.

Participants in the LCFS program can increase the number of LCFS credits generated by creating fuel pathways with a lower carbon-intensity (CI) than average grid power in California, or by using a liquid fuel cleaner than gasoline or diesel. NCPA and certain Members have created, or are

considering creating, fuel pathways for compressed natural gas (CNG), renewable natural gas (RNG), and large hydroelectric power. CARB requires applications for certain types of fuel pathways to include a life-cycle analysis and modeling of carbon-intensity. For approved fuel pathways, CARB requires certain fuel types to undergo independent validation and verification processes.

NCPA issued Request for Proposal (RFP) LR 2105 on December 17, 2021, to solicit proposals from qualified consultants providing LCFS fuel pathway application, validation, and verification consulting services. NCPA created a review group for the RFP consisting of staff from NCPA and NCPA Member entities, and this review group evaluated and scored timely proposals submitted to the RFP. Seven vendors responded to the RFP by the deadline of January 18, 2022. Based on the scoring review group's evaluation, two vendors were selected to provide fuel pathway application, validation, and verification consulting services, and one additional vendor was selected to provide only fuel pathway validation and verification consulting services. The review group selected SCS Engineers based on its experience, work plan, and costs. NCPA is also entering into agreements with EcoEngineers and Tetra Tech, Inc. 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 Shiva Swaminathan and seconded by Steve Hance recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with Stearns, Conrad, and Schmidt, Consulting Engineers, Inc. dba SCS Engineers ("SCS Engineers") for Low Carbon Fuel Standard fuel pathway application, validation, and verification consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$350,000 over five years, for use by NCPA, NCPA Members, SCPPA, and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Redding, Roseville, and Santa Clara. The motion passed.

- 13. All NCPA Facilities, Members, SCPPA – Tetra Tech, Inc. MTCSA** – Staff provided background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Consulting Services Agreement with Tetra Tech, Inc. for Low Carbon Fuel Standard (LCFS) fuel pathway verification and validation consulting services, with a not to exceed of \$250,000, for use by NCPA, NCPA Members, SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA and 12 NCPA Members are currently registered reporting entities for the California Air Resources Board's Low Carbon Fuel Standard (LCFS) program. The LCFS program is designed to decrease the carbon intensity of California's transportation fuel pool and incentivize low-carbon and renewable fuel alternatives, including electricity. NCPA and participating Members are able to generate LCFS credits by reporting the use of alternative fuels, including electric vehicle (EV) charging at owned EV chargers, and NCPA Members with residential customers generate LCFS credits associated with an estimate of residential EV charging. LCFS credits can then be sold and the proceeds used to fund programs and projects that support transportation electrification.

Participants in the LCFS program can increase the number of LCFS credits generated by creating fuel pathways with a lower carbon-intensity (CI) than average grid power in California, or by using a liquid fuel cleaner than gasoline or diesel. NCPA and certain Members have created, or are considering creating, fuel pathways for compressed natural gas (CNG), renewable natural gas (RNG), and large hydroelectric power. CARB requires applications for certain types of fuel pathways to include a life-cycle analysis and modeling of carbon-intensity. For approved fuel pathways, CARB requires certain fuel types to undergo independent validation and verification processes.

NCPA issued Request for Proposal (RFP) LR 2105 on December 17, 2021, to solicit proposals from qualified consultants providing LCFS fuel pathway application, validation, and verification consulting services. NCPA created a review group for the RFP consisting of staff from NCPA and NCPA Member entities, and this review group evaluated and scored timely proposals submitted to the RFP. Seven vendors responded to the RFP by the deadline of January 18, 2022. Based on the scoring review group's evaluation, two vendors were selected to provide fuel pathway application, validation, and verification consulting services, and one additional vendor was selected to provide only fuel pathway validation and verification consulting services. The review group selected Tetra Tech, Inc. based on its experience, work plan, and costs. NCPA is also entering into agreements with EcoEngineers and SCS Engineers 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 Brian Schinstock and seconded by Jiayo Chiang recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with Tetra Tech, Inc. for Low Carbon Fuel Standard fuel pathway application, validation, and verification consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$250,000 over five years, for use by NCPA, NCPA Members, SCPPA, and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Redding, Roseville, and Santa Clara. The motion passed.

- 14. Approval of Exhibit C, Revision 24-1 to Contract 96-SNR-00110 (WAPA O&M Funding Commitment)** – Staff presented background information and was seeking a recommendation for Commission approval of Exhibit C, Revision 24-1 to Contract 96-SNR-00110, and authorizing the General Manager of NCPA to execute Exhibit C, Revision 24-1 to Contract 96-SNR-00110, on behalf of NCPA.

In December 2004 NCPA executed the Western Agreement for the Funding of Operation and Maintenance of CVP Projects (Contract 96-SNR-00110). The program objectives include that the CVP customers provide funds for specific operations, maintenance, and capital projects related to CVP facilities to ensure CVP facilities are maintained to enhance reliability of the base resource deliveries. All funds paid are returned to CVP customers as credits on their power bills.

For each fiscal year, each customer commits to certain funding levels based on projected needs. The NCPA Pool share is \$11,918,438.68 for the federal FY 2024 funding. The net fiscal impact is zero dollars (\$0.00). The amounts initially funded are subsequently refunded by Western using bill credits. NCPA's authority to act on behalf of Pool Members is provided through the Assignment Administration Agreement (AAA Agreement) which requires an affirmative vote of all assigning Members at the Commission meeting.

Motion: A motion was made by Shiva Swaminathan and seconded by Mark Sorensen recommending Commission approval of Exhibit C, Revision 24-1 to Contract 96-SNR-00110, and to authorize the General Manager of NCPA to execute Exhibit C, Revision 24-1 to Contract 96-SNR-00110, on behalf of NCPA, including any non-substantive modifications to Exhibit C, Revision 24-1 to Contract 96-SNR-00110 approved by NCPA's General Counsel. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, and Plumas-Sierra. ABSTAIN = Redding, Roseville, and Santa Clara. The motion passed.

- 15. Approval of First Amendment to Antelope Expansion 1B, LLC Power Purchase Agreement –** Staff will present and seek a recommendation for approval of the First Amendment to the Power Purchase Agreement between Northern California Power Agency and Antelope Expansion 1B, LLC.

NCPA purchased 17 MW of Solar PV on behalf of Participating Members through the Antelope Expansion 1B Power Purchase Agreement (PPA), dated June 25, 2018. The Seller has delivered certain Force Majeure notices to NCPA, claiming that due to the detention of solar modules the commercial operations date for project completion has been delayed. The Seller has informed NCPA that in order to preserve Seller's financing sources for the continued development and construction of the project, the Outside Commercial Operation Date in the PPA needs to be extended.

To be able to extend the Outside Commercial Operation date, the PPA must be amended. The First Amendment to the PPA will extend the Outside Commercial Operation Date to September 30, 2022. Extending the Outside Commercial Operation date will improve Seller's ability to acquire financing sources that are required to complete development of the project.

Motion: A motion was made by Jiayo Chiang and seconded by Mark Sorensen recommending Commission approval of the First Amendment to the Power Purchase Agreement between NCPA and Antelope Expansion 1B, LLC (PPA), and to authorize the General Manager of NCPA to execute the First Amendment to the PPA, including any non-substantive modifications to First Amendment to the PPA approved by NCPA's General Counsel. A vote was taken by roll call: YES = Biggs, Gridley, Lodi, and Plumas-Sierra. ABSTAIN = Alameda, Palo Alto, Redding, Roseville, and Santa Clara. The motion passed.

- 16. Approval of San Jose Clean Energy Services Agreement** – Staff will present and seek a recommendation for approval of a Services Agreement between San Jose Clean Energy and Northern California Power Agency for wholesale energy services.

➤ ***This item was pulled from the agenda and will be brought back to the Committee for review and discussion at a later date.***

- 17. FY 2023 Annual Budget Review and Approval** – Staff provided updated information and reviewed the final budget for FY 2023, and was seeking a recommendation for Commission approval of the budget.

#### **Major Changes from the March Review**

- **Hydro**
  - Reduced debt service \$1.7m
- **Geo**
  - Reduced effluent revenue \$1.4m
  - Reduced labor \$237k
  - Reduced project costs \$225k
- **Updated Member Load Assumptions**
  - Reduced Load Aggregation \$1.8m
  - Reduced GHG obligations \$1.6m
  - Reduced Transmission WAC \$953k

The summary overview of the FY 2023 Annual Budget Generation Resources includes \$1.5 million net Hydro reduction; \$1 million net Geo increase; \$1.8 million reduction in load aggregation; \$1.6 million reduction of GHG obligations related to Member load forecast reduction; and \$953,000 WAC reduction.

The total net annual budget cost is \$149,612,917, with the total adjusted net annual budget cost at \$115,578,126. This is up 25.9% largely due to the forward curve, load costs, and transmission costs.

The required SCPA Balancing Account Collections was discussed during the meeting. The Current Balance Proposed Adjustments for FY 2023 billed to Participants totals \$9,482,701. Participants pay a certain percentage of this amount. Staff asked Members their preference on these Collections. Several Members prefer quarterly payments for their entity on the ARB starting in September 2022. Staff proposed these Collections to be due September 2022, December 2022, March 2023, and June 2023. Please contact staff with any questions or concerns.

Motion: A motion was made by Shiva Swaminathan and seconded by Steve Hance recommending the Commission adopt and approve the FY 2023 Annual Budget and Working Capital and Funding Requirement as outlined in Resolution 22-XX and as detailed in the attached budgetary support and Annual Budget document. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Redding, Roseville, and Santa Clara. The motion passed.

**18. Recommendation to add a Cyber Security Insurance Policy** – Staff presented a recommendation to add cyber security insurance as a new coverage to the Agency's insurance program.

Discussions with Alliant and FM Global identified a lack of Cyber Liability insurance as a delinquency in our current insurance program representing significant risk. NCPA policies in place will not respond to cyber extortion demands or costs associated with data recovery should there be a network security failure that impacts the Agency's data or networked systems. The Agency must come out of pocket to retain vendors/services to assist in managing a privacy or network security incident. Previous examples of cyber-attacks on key infrastructure as well as current world events further emphasize the need to limit the Agency's risk exposure.

Proposed coverage will include business interruption and extra expense, data recovery, cyber extortion, privacy and security, and breach event with crisis management coverage. The FY 2022 Risk Management budget has sufficient funds to accommodate the costs associated with the proposed Cyber Liability Insurance policy, and a budget augmentation is not required. FY 2023 Risk Management budget has a line item for Cyber Liability Insurance.

Motion: A motion was made by Steve Hance and seconded by Mark Sorensen recommending Commission approval authorizing the General Manager to negotiate and bind for the policy year 2022 Cyber Liability insurance coverages at a not-to-exceed amount of \$250,000. A vote was taken by roll call: YES = Alameda, Biggs, Lodi, Palo Alto, Plumas-Sierra, Redding, Roseville, and Santa Clara. The motion passed.

➤ ***This item will move forward to the next Commission meeting as a Closed Session item.***

Non-essential Members and NCPA staff left the meeting for the closed session discussion Item #19.

## **CLOSED SESSION**

**19. CONFERENCE WITH REAL PROPERTY NEGOTIATORS – pursuant to Government Code Section 54956.8:**

Property: 5034 Sunrise Blvd, Fair Oaks, CA,

Agency negotiator: Randy Howard, General Manager; Monty Hanks, AGM of Administrative Services \ CFO; Jonathan Ashcraft, Facilities Manager.

Negotiating parties: Ethan Conrad

Under negotiation: Offer Price and Terms of Payment

(Gov. Code, § 54954.5 (Deering, Lexis Advance through Chapter 11 of the 2022 Regular Session).)

## **RECONVENED TO OPEN SESSION**

All meeting attendees rejoined the public meeting.

## **REPORT FROM CLOSED SESSION**

*Closed Session Disclosure:* General Counsel Jane Luckhardt stated the Committee gave direction to the Real Property Negotiations.

## **INFORMATIONAL ITEMS**

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

### **SJCE RFP for Wholesale Energy Services**

NCPA currently provides a variety of wholesale energy services to SJCE. The SJCE Services Agreement terminates on August 31, 2022. There is no extension option in the current agreement. SJCE issued a Request for Proposal (RFP) seeking wholesale energy services from third party suppliers. NCPA responded to SJCE's RFP by submitting a proposal to continue its supply of certain wholesale energy services, including CAISO Scheduling Agency services. NCPA has been short listed in SJCE's RFP process.

NCPA's Proposal summary for the RFP includes the services listed below:

- SC Agent services for scheduling
- Load forecasting
- Compliance reporting (Resource Adequacy)
- Performance reporting and deal capture
- Dispatch and operations
- Settlement validation
- Management of CRRs
- Development of risk management reports

Other key terms in the proposal include an initial term of three years with an option to extend the term for an additional three two-year terms, and compensation. The services cost estimate is based on the NCPA cost allocation model. The draft proposal for the services provided is for a \$785,000 annual fee, with a 2% per year escalation. The best and final offer is due April 8, 2022. Staff is requesting Member feedback on compensation and the best and final offer.

### **NCPA Renewables RFP Next Steps**

Staff has re-issued/refreshed the NCPA Renewables RFP with updated information currently stored on NCPA Connect. Staff will work to coordinate a periodic ad hoc review group to evaluate current proposals and help identify interest in the projects, and information gathering.

**21. NCPA Generation Services Plant Updates** – Plant Staff provided the Committee with an informational update on current plant activities and conditions.

**Geo** – There were no safety incidents to report for the month of March. There was however, two near misses. An employee slipped on a slick surface at the fueling area, and a contractor received and electrical shock while working on low voltage wiring. Employee safety training is 18% complete.



The average estimated net generation level for the month was 78.4 MW. Total estimated net generation was 58.3 GWh. FY 2022 forecasted net generation was 522.6 GWh YTD, with FY 2022 actual net generation at 605.5 GWh YTD or 15.9% over forecast. Routine maintenance activities for the November 2022 Plant 2 overhaul preparation included shipping the turbine rotor to Fuji for refurbishment, and removal of 4<sup>th</sup> stage blades for transport. The Plant 1 outage, March 21 – 31, 2022, has been completed. Maintenance activities during the outage included Unit 1 transformer overhaul, transmission line inspection by WAPA, cleaning of the main condenser tubes, and Stretford repairs and cleaning. During the outage maintenance of the Steam Field included replacement of defective pipeline valves, clean out of the Steam Field condensate tanks, and pulling pressure relief valves for refurbishment. The old CO-2 tank was also replaced for the Fire System Modification Project during the outage.

**CTs** – March was a quiet month for the CTs. CT1 had 5 actual starts, bringing the FYTD total to 189, of 0 forecasted. CT2 had 0 starts this month, of 1 forecasted, keeping the FYTD total at 47 starts. Alameda Unit 1 is still in a forced outage due to an oil system leak. Allied Power will mobilize for the oil system in April. EMC will mobilize for the Generator Major and cleaning May 1, 2022. A planned outage is scheduled for Alameda Unit 2 in April for AMPS work. CT1 Lodi has used 1.6 hours of 200 allowed based on a calendar year. CT1 Alameda Diesel Unit 1 has used 14.6 hours of 20, and Unit 2, 12.0 hours of 20, based on a rolling year. Staff reviewed the CAISO Commitment Runs for March 2022.

**Hydro** – Collierville (CV) Power House was 100% available during the month of March, and New Spicer Meadows Power House was at 99% availability due to PG&E transmission. New Spicer Meadows storage increased by 17,100 acre feet at 23% month over month from 73,900 acre feet to 91,000 acre feet. Last year's peak was at 94,600 acre feet. The California snow water content is 37% of average for this time of year in Central California. Current regulatory events included annual water rights filings, USGS annual review comments, application to FERC for dam maintenance, DSOD maintenance consultations, and revising all NCPA EAPs for CAOES. Staff plan to attend two upcoming USFS meetings. Current maintenance activities during the month included 230 kV ROW vegetation management, annual Collierville sump cleaning, and Beaver Creek fish screen cleaner repairs.

## **22. Planning and Operations Update**

### **➤ Resource Integrations In Progress**

- Camp Far West (SVP) – April 2022
- Antelope Solar (NCPA) – TBD
- Deer Creek – May 2022
- Tulare Solar – March 31, 2022 / April
- Sandborne Storage – December 2022

**23. Next Meeting** – The next Facilities Committee meeting is scheduled for May 4, 2022.

## **ADJOURNMENT**



The meeting was adjourned at 12:34 pm by the Committee Chair.

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

[illegible]

**Northern California Power Agency  
April 6, 2022 Facilities Committee Meeting  
Attendance List**

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

<b><u>MEMBER</u></b>	<b><u>NAME</u></b>
<b>ALAMEDA</b>	
<b>BART</b>	
<b>BIGGS</b>	
<b>GRIDLEY</b>	
<b>HEALDSBURG</b>	
<b>LODI</b>	
<b>LOMPOC</b>	
<b>PALO ALTO</b>	
<b>PLUMAS-SIERRA REC</b>	
<b>PORT OF OAKLAND</b>	
<b>REDDING</b>	
<b>ROSEVILLE</b>	
<b>SANTA CLARA</b>	
<b>TID</b>	
<b>UKIAH</b>	



# Commission Staff Report – *DRAFT*

**COMMISSION MEETING DATE:** May 26, 2022

**SUBJECT:** Kinectrics, Inc. – Five Year Multi-Task Professional Services Agreement for generator testing and assessment 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

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

<b>IMPACTED MEMBERS:</b>		
All Members <input checked="" type="checkbox"/>	City of Lodi <input type="checkbox"/>	City of Shasta Lake <input type="checkbox"/>
Alameda Municipal Power <input type="checkbox"/>	City of Lompoc <input type="checkbox"/>	City of Ukiah <input type="checkbox"/>
San Francisco Bay Area Rapid Transit <input type="checkbox"/>	City of Palo Alto <input type="checkbox"/>	Plumas-Sierra REC <input type="checkbox"/>
City of Biggs <input type="checkbox"/>	City of Redding <input type="checkbox"/>	Port of Oakland <input type="checkbox"/>
City of Gridley <input type="checkbox"/>	City of Roseville <input type="checkbox"/>	Truckee Donner PUD <input type="checkbox"/>
City of Healdsburg <input type="checkbox"/>	City of Santa Clara <input type="checkbox"/>	Other <input type="checkbox"/>
<i>If other, please specify</i>		
<hr/>		
<hr/>		

## **RECOMMENDATION:**

Approve Resolution 22-XX authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with Kinectrics, Inc. for generator testing and assessment 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:**

Generator testing and assessment 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 currently has an agreement in place with Kinectrics, Inc., which is expiring. NCPA has utilized this vendor in the past for services such as quality control testing on stator bars used in the Hydro generator rewind project. NCPA has a good working relationship with the vendor and wishes to continue that relationship. 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. NCPA has agreements in place for similar services with Ethos Energy, Andritz Hydro, and Sulzer Turbo Services.

## **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 the California Environmental Quality Act. No environmental review is necessary.

## **COMMITTEE REVIEW:**

Pending Committee review.

**AFTER FACILITIES APPROVAL:** On May 4, 2022 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On May 9, 2022 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 22-XX
- Multi-Task Professional Services Agreement with Kinectrics, Inc.



## RESOLUTION 22-XX

### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK PROFESSIONAL SERVICES AGREEMENT WITH KINETRICS, INC.

(reference Staff Report #XXX:22)

WHEREAS, generator testing and assessment 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, Kinectrics, Inc. is a provider of these services; and

WHEREAS, the NCPA Commission has reviewed the Multi-Task Professional Services Agreement with Kinectrics, 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 a Multi-Task Professional 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 \_\_\_\_\_, 2022 by the following vote on roll call:

	<u>Vote</u>	<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	_____	_____	_____

\_\_\_\_\_  
DAVID HAGELE  
CHAIR

ATTEST:

\_\_\_\_\_  
CARY A. PADGETT  
ASSISTANT SECRETARY



## **MULTI-TASK PROFESSIONAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND KINETRICS AES INC.**

This Professional 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 Kinectrics AES Inc., a corporation with its office located at 4117 Clipper Court, Fremont, CA 94538 ("Consultant") (together sometimes referred to as the "Parties") as of \_\_\_\_\_, 202\_ ("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 Term of Agreement.** 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) years 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.

Consultant warrants that the Services, excluding any as may be performed under the direction or supervision of the Agency, performed pursuant to this Agreement will be performed in a professional manner consistent with the standards of quality and care typical within the industry at the time of performance for similar work and will be performed by or under the supervision of a professional engineer pursuant to California Business and Professions Code Section 6700 et. seq. Such warranty will be effective for a period of one (1) year from the date of performance of the Service. Any such Services performed by Consultant which do not conform with Consultant above-stated warranty obligation will be re-performed by Consultant at Consultant's expense; or if re-performance is impracticable or impossible, Consultant will refund to Customer the price paid to Consultant for the non-conforming Services. The warranties and remedies set forth herein are exclusive, and no other warranty or remedy of any kind, whether statutory, written, oral, express, or implied, including without limitation warranties of performance, merchantability and fitness for a particular purpose, shall apply.

**1.3 Assignment of Personnel.** 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 **Services Provided.** 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 **Request for Services.** 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.

**Section 2.** **COMPENSATION.** Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED ONE MILLION DOLLARS (\$1,000,000)** 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 **Invoices.** Consultant shall submit invoices, not more often than once a month during the term of this Agreement, or in accordance with Consultant's Quotation for work, or as specified in the Purchase Order, 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 where work is performed on a Time & Materials basis only; 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 for the work performed on Time & Material basis only.

Invoices shall be sent to:

Northern California Power Agency  
651 Commerce Drive  
Roseville, California 95678  
Attn: Accounts Payable  
[AcctsPayable@ncpa.com](mailto:AcctsPayable@ncpa.com)

- 2.2 Monthly Payment.** Agency shall make monthly payments, or as otherwise agreed to, 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 Payment of Taxes.** Consultant is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.
- 2.4 Authorization to Perform Services.** 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 Timing for Submittal of Final Invoice.** Consultant shall have ninety (90) days after completion of its Services to submit its final invoice. 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 Workers' Compensation.** 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, or as prescribed under the relevant Workers Compensation plan.

## **4.2 Commercial General and Automobile Liability Insurance.**

**4.2.1 Commercial General Insurance.** 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 Automobile Liability.** 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 General Liability/Umbrella Insurance.** 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 All Policies Requirements.**

**4.4.1 Verification of coverage.** 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 Higher Limits.** 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, Consultant shall provide certificates of insurance and policy endorsements, as referenced in Section 4.4.1, naming the specific Agency member, SCPPA or Agency member for which the Services are to be performed.

**4.5 Consultant's Obligation.** 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 ensures 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 Effect of Insurance.** 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 Scope.** 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"). (See Cal. Civ Code Section 2782.8 limiting indemnity for design professionals including professional engineers.) 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.

Notwithstanding the above, Consultant's total aggregate liability for damages arising from any cause or action whatsoever shall be limited to amounts recoverable pursuant to the policy limit amounts detailed in Section 4 above inclusive of any deductibles, as long as Consultant maintains in effect and applicability the insurance, including but not limited to the amounts, deductibles, and scope referenced herein. In no event shall Consultant at any time be liable to the Agency for any indirect, incidental or consequential damages which may be sustained by them, including but not limited to loss of revenue, profit, business reputation or opportunity whether such liability arises out of contract, tort, strict liability, warranty or other legal theory whether at law, in equity or otherwise.

## **Section 6. STATUS OF CONSULTANT.**

- 6.1 Independent Contractor.** 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 for any US employees, 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 Consultant Not Agent.** 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 Assignment and Subcontracting.** 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 Certification as to California Energy Commission.** If requested by the Agency, Consultant shall, at the same time it executes this Agreement, execute Exhibit C.

**Section 7. LEGAL REQUIREMENTS.**

- 7.1 Governing Law.** The laws of the State of California shall govern this Agreement.
- 7.2 Compliance with Applicable Laws.** Consultant and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- 7.3 Licenses and Permits.** 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 Termination.** 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, including the cost of any preapproved un-cancellable commitments incurred prior to the 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 Amendments.** The Parties may amend this Agreement only by a writing signed by all 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 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 are 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.

Notwithstanding any provisions in this Agreement to the contrary, Consultant will own the entire right, title and interest to its own background intellectual property and nothing in this Agreement is intended to diminish that ownership interest and/or transfer, grant or bestow any right, title or interest in the Agency or any other party, including any ownership or license interest therein.

- 9.2 Consultant's Books and Records.** 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. Notwithstanding the above, Agency shall not audit the cost or pricing components of any fixed price work as long as doing so does not violate state law.
- 9.4 Confidential Information and Disclosure.**
- 9.4.1 Confidential Information.** 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, 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 Handling of Confidential Information.** 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. MISCELLANEOUS PROVISIONS.**

- 10.1 Attorneys' Fees.** 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 Venue.** 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 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.
- 10.4 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.
- 10.5 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.
- 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 Contract Administrator.** 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:

Kinectrics, Inc.  
Attn: Jeff Lewis  
800 Kipling Avenue, Unit 2  
Toronto, Ontario M8Z 5G5  
Canada

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, for Engineering work 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 Alternative Dispute Resolution.** 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 Controlling Provisions.** 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 Counterparts.** 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 Construction of Agreement.** 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 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. However, should Consultant provide services 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 Services relating to such Member.

SIGNATURES ON FOLLOWING PAGE



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

NORTHERN CALIFORNIA POWER AGENCY

KINECTRICS AES INC.

Date\_\_\_\_\_

Date\_\_\_\_\_

\_\_\_\_\_  
**RANDY S. HOWARD, General Manager**

\_\_\_\_\_  
**SHAHROKH ZANGENEH,  
Chief Commercial Officer**

Attest:

\_\_\_\_\_  
Assistant Secretary of the Commission

Approved as to Form:

\_\_\_\_\_  
Jane E. Luckhardt, General Counsel

## EXHIBIT A

### SCOPE OF SERVICES

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

#### I.     **Standard Generator Testing and Assessment;**

Perform limited visual inspection and off-line diagnostic testing of one generator stator winding, includes the following:

#### II.    **Stator Winding Insulation Resistance and Polarization Index:**

Both single phase (A, B, C) and three phase testing (ABC) are required for assessment of the condition of the insulation system at 5 kV.

Testing is a requirement to ensure a minimum insulation condition prior to proceeding with diagnostic testing in accordance with the requirements of IEEE 43. Table 4 of this standard indicates the minimum recommended insulation resistance, in MΩ at 40°C, of the entire machine winding (ABC) of 100 MΩ as a prerequisite for further testing.

#### III.   **Stator Winding Capacitance and Dissipation Factor (tan δ) Test:**

Typically single phase testing (A, B, C) is required for assessment of the condition of the insulation system.

**Note:** An advance Capacitance & Dissipation Factor measurements between phase to phase can also be performed to obtain additional information of the insulation condition. However, in order to perform this test, a higher capacity power supply may be required to energize the winding with additional cost.

Tan δ testing evaluates various factors that influence the performance of the overall electrical insulation. Bridge techniques will be employed to properly measure and assess the extent of pulseless and pseudo glow discharge activity. Testing is performed in accordance with the requirements of IEEE 286 on each phase at up to rated line to neutral voltage.

#### IV.    **Stator Winding Off-Line Partial Discharge Testing:**

Measurement of the partial discharge quantities  $Q_{IEC}$  and  $Q_M$ , as well as PDEV and PDIV are required, in the single phase (A, B, C) configuration with coupling capacitors installed at both the line end and neutral end of the winding for simultaneous measurements.

Note: An advance PD measurements for additional cost can also be performed by connecting all three phases together so as to distinguish between the slot and end winding discharges; however in this case a higher capacity power supply is normally required due to high capacitance of the complete machine.

Two different methods of measuring PD will be performed with instrumentation using different frequency ranges and sensitivities to different types of PD activity. Measurements of  $Q_{IEC}$  will be performed first, followed by measurements of  $Q_M$ .

Off-line partial discharge testing evaluates various factors that influence the performance of electrical insulation associated with electrical discharges near the Line End of the stator winding. Testing is normally performed in accordance with the requirements of IEEE 1434 and/or IEC 60034-27-1.

#### V. **Stator Winding Electromagnetic (Corona or TVA) Test**

Single phase (A, B, C) testing is required. During testing of each phase, all slots containing a stator coil in either the top or bottom of the slot are scanned. The slots are divided into at least two sections, to allow differentiation of PD originating from each end of the core.

It is recommended that an AC overvoltage voltage test in accordance with IEEE 62.2 7.1.5 of at least 1.10 to 1.25 times the rated line-to-neutral voltage of the machine is performed prior to performing a TVA probe test (for safety). This overvoltage test provides some assurance of the integrity of the winding being tested.

#### VI. **Stator Winding Ultrasonic Inspection and/or Corona Camera/Corona Scope Inspection of Winding Connection End**

Testing is used to identify locations of PD within the end arm region of a stator winding. A scan of the end arm region of the connection end of the stator is performed using the ultrasonic detector to identify locations of partial discharge. An audio scans can localize areas of partial discharge which are not within line of sight

A corona scope and/or daylight corona camera, can be used to perform limited localization of PD in end winding region and requires direct line of sight.

#### VII. **Stator Winding Resistance**

Winding resistance testing can detect the presence of any high resistance joints, corrosion, or fractures of the conductors. The DC winding resistance of each phase (A1, A2, B1, B2, C1, C2) is measured using a Kelvin bridge in accordance with the requirements of IEEE 62.2.

## VIII.     **Stator AC Overvoltage Withstand Test**

AC testing results in the highest stress levels on the insulation system within the slot section of the stator core. Acceptance test levels for new machines are  $2E+1$ , while typical maintenance levels are 1.25 to 1.50E (E = Rated line to line voltage). Withstand testing provides some assurance that the winding insulation has a minimum level of electrical strength required to successfully operate for the expected design life or certain period of time. Testing is performed on each phase in accordance with the requirements of IEEE 62.2 on each phase for one minute, with the remaining phases grounded. Partial discharge measurements are performed at the withstand voltage level during the test.

## IX.     **Stator Winding DC Ramped Overvoltage Test**

DC testing results in the highest stress levels on the insulation system in the end arm region. Typical maintenance levels are 1.25 to 1.50E (E = Rated line to line voltage,  $AC \times 1.7 = DC$ ). Ramp testing provides some assurance that the winding insulation has a minimum level of electrical strength required for continued operation. Testing is performed in accordance with the requirements of IEEE 95 on each phase using a 2 KV/min ramping rate, with the remaining phases grounded.

## X.     **Stator Winding Limited Stator Winding Inspection**

Visual Inspection of the stator winding assembly in accordance with the requirements of IEEE 62.2

## XI.     **Additional Generator Tests;**

### 1.     **Stator Slot Wedge Tightness**

The stator Slot Wedge Tightness of the machine will be checked, and areas of concern would be noted. Testing is performed in accordance with the requirements of IEEE 62.2

### 2.     **Stator Core Low Energy (EICID) Test**

The condition of the interlaminar resistance between stator punchings of the machine core is evaluated. Testing is performed in accordance with the requirements of IEEE 62.2 using a digital EICID test set and findings are recorded.

### 3.     **Isolated Phase Bus Test**

Perform an AC Hipot of 27 kV for 1 minute (15 kV Class Iso-Phase Bus), followed by measurement of Partial discharge activity at 10.5 kV. Testing is amenable to detecting cracked insulators, moisture, loose connections and mounting hardware, and foreign materials.

## **II. Failure Analysis and Other Miscellaneous Technical Assistance**

Perform document review for NCPA on an as requested basis.

## **III. Qualification Testing of 13.8kV stator bars and coils in accordance with IEEE 1310, IEEE 1043 and IEEE 1553.**

The following qualification testing consisting of Thermal Cycling Test (TCT) in accordance with IEEE 1310 followed by Voltage Endurance Test (VET) in accordance with IEEE 1043 and 1553 is performed on newly manufactured stator bars and coils.:

Note: In case of bars normally five bars are required to perform the qualification test and in case of coils normally three coils are required.

### **THERMAL CYCLING TEST:**

The thermal cycling work to be performed on stator bars/coils consists of:

1. Uncrating and performance of an incoming inspection of the stator bars/coils to ensure that no transit damage has occurred.
2. Perform an initial diagnostic sub-cycle on each stator bar/coil consisting of
  - A) Tap tests on the coils.
  - B) Slot corona protection surface resistance measurement.
  - C) Capacitance, dissipation factor at 0.2, 0.4, 0.6, 0.8, 1.0 Un of rated line to line voltage.
  - D) Partial discharge measurements up to 8 kV or 13.8kV ac rms.
  - E) Dimensional measurements in accordance with IEEE 1310
  - F) Surge testing (coils only): The initial surge testing of the turn insulation will be performed at 40 kV (3.5 p.u.), 100ns as per IEEE 522. The final surge testing will be performed on completion of 500 cycles on thermal cycling. The final turn insulation will be performed at 75% i.e. 30kV on each coil.
3. Performance of thermal cycling test on stator bars/coils as per the requirements of IEEE 1310-1996. Control bar/coil will be used to provide copper temperature measurements and hence to control the thermal cycling process. The thermal cycle profile will be 40°C-155°C-40°C with an average rate of increase/decrease as permitted by IEEE 1310-1996. The number of thermal cycles shall be 500.
4. Perform a diagnostic sub-cycle after 100, 250 and 500 thermal cycles on each bar/coil that has been subjected to thermal cycling. The measurements to be performed as per clause 2 above.

### **VOLTAGE ENDURANCE TEST:**

The voltage endurance test will be performed on bars/coils on successful completion of Thermal Cycling and surge testing in case of coils in accordance to IEEE 1043 and 1553.

The test conditions shall be as follows:

- Bars/coils at 30kV (Schedule 'A') for 400 hours or (Schedule 'B') for 250 hours as per IEEE 1553. Temperature between 90 °C and 130°C (TBD).

#### **Pass/Fail Criteria:**

#### **Surge Test (Coils Only):**

This is a pass or fail test with no failures permitted.

The waveform from this test is to be compared with the original test to ensure no shorts have developed between turns. A waveshape resulting from any applied surge voltage on any coil that does not match the waveshape on the master coil is considered a fail.

If a failure occurs, the entire lot of bars/coils will be rejected.

**The additional expense for dissection and failure analysis will be mutually discussed and agreed upon between Kinectrics and Agency.**

#### **Thermal Cycling Test:**

During the thermal cycling process, the diagnostic testing of the bars/coils at the 100, 250 and 500 cycle mark will assist in determining how any one bar/coil is performing as the test is progressing and how any one bar/coil performed when the test is completed. Based on experience with these diagnostic tests, it will determine if the testing of any said bar/coil should continue through to the voltage endurance test or not. Utility and Vendor shall discuss, in detail, precisely what constitutes a failed thermal cycled bar/coil before testing begins.

#### **Voltage Endurance Testing:**

The bars/coils shall be subject to the acceptance criteria as outlined in IEEE 1553, Section 5.

**Note 1:** Failure of the insulation system anywhere on the bar/coil, including the semi-con / grading interface is not permitted, this will be considered a fail.

**Note 2:** The area of the bar/coil that encompasses the semiconducting to grading tape interface shall not show any signs of physical erosion of the grading or semiconducting tape of any kind such as but not limited to, cracking, abrading, flaking, burn through, etc. The interface area shall be defined as the area where the grading tape overlaps the semi-conducting tape, plus up to 3.0 linear inches towards the end winding as followed along the grading tape surface.

Physical erosion of this interface area shall be considered a failure for this bar/coil. Discoloration of this interface area is permitted. There are no exceptions to this qualifying point.

**Dissections:** Upon completion of the thermal cycling and post-TC testing, a minimum of one bar/coil per lab test shall be dissected and microscopically examined to determine the failure mechanism or to confirm the winding quality. Any delamination within the ground-wall insulation or de-bonding between the conductor strands and the ground-wall insulation and/or turn insulation as well as discoloration in the insulation structure shall result in rejection of the bars/coils.

- a. Delamination is defined as the separation of the ground-wall tape layers due to loss of bonding strength and/or impregnating compound.
- b. De-bonding is defined as the lack of adhesion between the layers in an insulation system due to improperly cured resins or lack of resin or a fracturing of the crystalline resin in the insulation matrix.
- c. Discoloration is defined as a change in the colour of the insulation structure from the normal translucent brown colour (securely bonded regions) to an opaque white colour (poorly bonded or delaminated regions).

## EXHIBIT B

### COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all tasks, including hourly fees and expenses, shall not exceed \$1,000,000 subject to Section 2 of the Agreement. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

- I. Standard Generator Testing and Assessment: \$42,000
- II. Advance Generator Testing and Assessment: TBD
- III. Additional Generator Tests
  - 1. Wedge Test: \$10,500
  - 2. ELCID Test: \$12,500
  - 3. Iso-Phase Bus Test: \$5,000
  - Additional Day (Mon-Fri): \$ 6,500
  - Additional Day (Sat-Sun): \$ 8,600
- IV. Technical Assistance and Document Review:
  - 1. Hourly Rate: \$215/Hour
  - 2. Expenses: Expenses + 15% Handling Fee
- V. Qualification Testing of 13.8kV stator bars/coils: \$ 60,000 (Does not include any failure analysis and/or repeat testing in case of any failure of the samples)

#### NOTES:

Pricing is valid to December 31, 2027 and is subject to a 3%/year escalation for following years. All prices listed are before applicable taxes.

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

Consultant may revise the hourly rates each year upon the giving of 30 days' advance written notice to NCPA. If the parties cannot agree to revised hourly rates, NCPA may terminate the Agreement.

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**

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

(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

\_\_\_\_\_

(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:** May 26, 2022

**SUBJECT:** GeothermEx, Inc. – First Amendment to Five Year Consulting Services Agreement for Geothermal Reservoir Numerical Simulations; Applicable to the following: Geothermal Facility.

**AGENDA CATEGORY:** Consent

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

<b>IMPACTED MEMBERS:</b>		
All Members <input type="checkbox"/>	City of Lodi <input checked="" type="checkbox"/>	City of Shasta Lake <input type="checkbox"/>
Alameda Municipal Power <input checked="" type="checkbox"/>	City of Lompoc <input checked="" type="checkbox"/>	City of Ukiah <input checked="" type="checkbox"/>
San Francisco Bay Area Rapid Transit <input type="checkbox"/>	City of Palo Alto <input type="checkbox"/>	Plumas-Sierra REC <input checked="" type="checkbox"/>
City of Biggs <input checked="" type="checkbox"/>	City of Redding <input type="checkbox"/>	Port of Oakland <input type="checkbox"/>
City of Gridley <input checked="" type="checkbox"/>	City of Roseville <input checked="" type="checkbox"/>	Truckee Donner PUD <input type="checkbox"/>
City of Healdsburg <input checked="" type="checkbox"/>	City of Santa Clara <input checked="" type="checkbox"/>	Other <input checked="" type="checkbox"/>
<i>If other, please specify</i>		Turlock
		_____
		_____

## **RECOMMENDATION:**

Approve Resolution 22-XX authorizing the General Manager or his designee to enter into a First Amendment to the Consulting Services Agreement with GeothermEx, Inc. for geothermal reservoir numerical simulations, with any non-substantial changes recommended and approved by the NCPA General Counsel, increasing the not-to-exceed amount from \$225,000 to \$1,000,000, for continued use at the Geothermal Facility.

## **BACKGROUND:**

Geothermal reservoir numerical simulations services are required from time to time for the operation and maintenance of NCPA's Geothermal Facility. GeothermEx, Inc. is a provider of these services. NCPA entered into a five-year Consulting Services Agreement with GeothermEx, Inc. effective February 24, 2020, for an amount not to exceed \$225,000, for use at the Geothermal Facility.

NCPA will be working with GeothermEx, Inc. to upgrade to a new software platform. GeothermEx, Inc. will also continue to provide NCPA with ongoing modeling support which provides staff with critical geothermal reservoir data used in operational decision making. There are not enough funds remaining on the agreement for this and future work. NCPA now desires to enter into a First Amendment to the Consulting Services Agreement to increase the not-to-exceed amount from \$225,000 to \$1,000,000 to ensure there are sufficient funds for the work detailed above, as well as through the remaining contract term. NCPA does not have any agreements in place for similar services with additional vendors at this time.

## **FISCAL IMPACT:**

Upon execution, the total cost of the agreement will be not to exceed \$1,000,000 over the remainder of the contract term. 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 FACILITIES APPROVAL: On May 4, 2022 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD  
General Manager

Attachments (3):

- Resolution 22-XX
- Consulting Services Agreement with GeothermEx, Inc.
- First Amendment to Consulting Services Agreement with GeothermEx, Inc.

**RESOLUTION 22-XX**

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY  
APPROVING A FIRST AMENDMENT TO THE CONSULTING SERVICES AGREEMENT WITH  
GEOTHERMEX, INC.**

**(reference Staff Report #XXX:22)**

WHEREAS, geothermal reservoir numerical simulations services are required from time to time for the operation and maintenance of NCPA's Geothermal Facility; and

WHEREAS, NCPA and GeothermEx, Inc entered into a Consulting Services Agreement effective February 20, 2020, to provide such services; and

WHEREAS, NCPA will be working with GeothermEx, Inc. to upgrade to a new software platform. GeothermEx, Inc. will also continue to provide NCPA with ongoing modeling support which provides staff with critical geothermal reservoir data used in operational decision making. There are not enough funds remaining on the agreement for this and future work; and

WHEREAS, NCPA now desires to enter into a First Amendment to the Consulting Services Agreement to increase the not-to-exceed amount from \$225,000 to \$1,000,000 to ensure there are sufficient funds for current work, as well as through the remaining contract term; 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 a First Amendment to the Consulting Services Agreement with GeothermEx, Inc., with any non-substantial changes as approved by the NCPA General Counsel, to increase the not-to-exceed amount from \$225,000 to \$1,000,000, for continued use at the Geothermal Facility.

PASSED, ADOPTED and APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2022 by the following vote on roll call:

	<u>Vote</u>	<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	_____	_____	_____

\_\_\_\_\_  
DAVID HAGELE  
CHAIR

ATTEST:

\_\_\_\_\_  
CARY A. PADGETT  
ASSISTANT SECRETARY



**CONSULTING SERVICES AGREEMENT BETWEEN  
THE NORTHERN CALIFORNIA POWER AGENCY AND  
GEOTHERMEX, INC.  
(Single Task)**

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 GeothermEx, Inc., a corporation with its office located at 3260 Blume Drive, Suite 220, Richmond, CA 94806, ("Consultant") (together sometimes referred to as the "Parties") as of February 24, 2020 ("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 Term of Agreement.** The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later than February 24, 2025, 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 Assignment of Personnel.** 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 Request for Work to be Performed.** At such time that Agency determines to have Consultant 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.

**Section 2. COMPENSATION.** Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED TWO HUNDRED TWENTY-FIVE THOUSAND** dollars (\$225,000) 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 Invoices.** 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  
[AcctsPayable@ncpa.com](mailto:AcctsPayable@ncpa.com)

**2.2 Monthly Payment.** 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 Payment of Taxes.** Consultant is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.

**2.4 Authorization to Perform Services.** 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 Timing for Submittal of Final Invoice.** Consultant shall have ninety (90) days after completion of its Services to submit its final invoice. 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 Workers' Compensation.** 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 Commercial General and Automobile Liability Insurance.**

**4.2.1 Commercial General Insurance.** 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. All deductibles and self-insured retentions associated with Consultant's insurance coverage are for the account of the Consultant, and the Agency will have no liability for such deductibles or self-insured retentions.

**4.2.2 Automobile Liability.** 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. All deductibles and self-insured retentions associated with Consultant's insurance coverage are for the account of the Consultant, and the Agency will have no liability for such deductibles or self-insured retentions. 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 General Liability/Umbrella Insurance.** 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 All Policies Requirements.**

**4.4.1 Verification of coverage.** 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 to the extent of liability assumed by Consultant under this Agreement, 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 Higher Limits.** 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 Waiver of Subrogation.** 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 Consultant's Obligation.** 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 ensures 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 Effect of Insurance.** 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 **Scope.** Consultant 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 Consultant, 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.

## **Section 6. STATUS OF CONSULTANT.**

- 6.1 **Independent Contractor.** 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 Consultant Not Agent.** 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 Assignment and Subcontracting.** 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.

## **Section 7. LEGAL REQUIREMENTS.**

- 7.1 Governing Law.** The laws of the State of California shall govern this Agreement.
- 7.2 Compliance with Applicable Laws.** Consultant and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- 7.3 Licenses and Permits.** 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 Termination.** 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 Amendments and Change Orders.**

**8.2.1** The Parties may amend this Agreement only by a writing signed by all the Parties.

**8.2.2** The Parties may agree to a change order, modifying the duration of the Agreement or the not-to-exceed compensation referenced in Section 2 hereof by a writing signed by the Consultant and the Contract Administrator.

- 8.3 Survival.** 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 Consultant's Books and Records.** 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 Confidential Information.** 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, 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 Handling of Confidential Information.** Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof) upon termination of this Agreement, 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. MISCELLANEOUS PROVISIONS.**

- 10.1 Attorneys' Fees.** 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 Venue.** 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 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.
- 10.4 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.
- 10.5 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.
- 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 Contract Administrator.** 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.
- 10.8 Notices.** Any written notice to Consultant shall be sent to:

Minh Pham  
Reservoir Engineering Manager  
3260 Blume Drive, Suite 220  
Richmond, CA 94806



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 Alternative Dispute Resolution.** 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 Controlling Provisions.** In the case of any conflict between the terms of this Agreement and the Exhibits hereto, and Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and the Consultant's Proposal, the Exhibits shall control.

**10.13 Counterparts.** 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 Construction of Agreement.** 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 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.

## **SIGNATURES ON FOLLOWING PAGE**

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

NORTHERN CALIFORNIA POWER AGENCY

Date 2/24/20

  
RANDY S. HOWARD, General Manager

GEOOTHERMEX, INC.

Date Feb 12th, 2020

  
MARCELO AUGUSTODE CAMARGO,  
President

Attest:

  
Assistant Secretary of the Commission

Approved as to Form:

  
Jane E. Luckhardt, General Counsel

## **EXHIBIT A**

### **SCOPE OF SERVICES**

GeothermEx, Inc. ("Consultant") shall provide geothermal reservoir numerical simulations, as requested by Northern California Power Agency ("Agency") at the Geothermal Facility.

Services to include, but not limited to the following:

- De-coupling of the pipeline network and reservoir simulator
- Update the model, calibrating it against operating data
- Sensitivity study to determine the health and viability of the reservoir
  - Reducing injection at saturated sites
  - Increasing injection at superheated sites
  - Reducing the production rate to prolong the production lifetime

## EXHIBIT B

### COMPENSATION SCHEDULE AND HOURLY FEES

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

	<b>Principal Geothermal Consultant</b>	<b>Senior Geothermal Consultant</b>	<b>Geothermal Consultant</b>	<b>Geothermal Technician</b>	<b>Administrative Support</b>
<b>Name</b>	Minh Pham Roger Henneberger	Robert Stacey Michelle Sullera	Morgan Ames	James Morrow	Rene Moreno
<b>Hourly Rate (USD)</b>	405	285	230	210	90

Pricing for services to be performed 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.



## FIRST AMENDMENT TO CONSULTING SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND GEOTHERMEX, INC.

This First Amendment (“Amendment”) to Consulting Services Agreement is entered into by and between the Northern California Power Agency (“Agency”) and GeothermEx, Inc. (“Consultant”) (collectively referred to as “the Parties”) as of \_\_\_\_\_, 2022.

WHEREAS, the Parties entered into a Consulting Services Agreement dated effective February 24, 2020, (the “Agreement”) for GeothermEx, Inc. to provide geothermal reservoir numerical simulations services at the Geothermal Facility; and

WHEREAS, the Agency now desires to amend the Agreement to increase the total compensation authorized by the Agreement from a “NOT TO EXCEED” amount of \$225,000 to a “NOT TO EXCEED” amount of \$1,000,000; 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. **Section 2—Compensation** of the Agreement is amended and restated to read as follows:

Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED ONE MILLION** dollars (\$1,000,000) 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.

The remainder of Section 2 of the Agreement is unchanged.

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

SIGNATURES ON FOLLOWING PAGE

///

///

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

NORTHERN CALIFORNIA POWER AGENCY

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

GEOOTHERMEX, INC.

\_\_\_\_\_  
**RANDY S. HOWARD, General Manager**

\_\_\_\_\_  
**ANN ROBERTSON-TAIT, President**

Attest:

\_\_\_\_\_  
Assistant Secretary of the Commission

Approved as to Form:

\_\_\_\_\_  
Jane E. Luckhardt, General Counsel



# Commission Staff Report – *DRAFT*

**COMMISSION MEETING DATE:** May 26, 2022

**SUBJECT:** 2022 Steam Field Operation and Generation Forecast, Applicable to the following: NCPA Geothermal Facility

**AGENDA CATEGORY:** Consent

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

<b>IMPACTED MEMBERS:</b>					
<b>All Members</b>	<input type="checkbox"/>	<b>City of Lodi</b>	<input checked="" type="checkbox"/>	<b>City of Shasta Lake</b>	<input type="checkbox"/>
<b>Alameda Municipal Power</b>	<input checked="" type="checkbox"/>	<b>City of Lompoc</b>	<input checked="" type="checkbox"/>	<b>City of Ukiah</b>	<input checked="" type="checkbox"/>
<b>San Francisco Bay Area Rapid Transit</b>	<input type="checkbox"/>	<b>City of Palo Alto</b>	<input type="checkbox"/>	<b>Plumas-Sierra REC</b>	<input checked="" type="checkbox"/>
<b>City of Biggs</b>	<input checked="" type="checkbox"/>	<b>City of Redding</b>	<input type="checkbox"/>	<b>Port of Oakland</b>	<input type="checkbox"/>
<b>City of Gridley</b>	<input checked="" type="checkbox"/>	<b>City of Roseville</b>	<input checked="" type="checkbox"/>	<b>Truckee Donner PUD</b>	<input type="checkbox"/>
<b>City of Healdsburg</b>	<input checked="" type="checkbox"/>	<b>City of Santa Clara</b>	<input checked="" type="checkbox"/>	<b>Other</b>	<input checked="" type="checkbox"/>
<i>If other, please specify</i>				Turlock	
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## **RECOMMENDATION:**

Approve Resolution 22-XX authorizing the 2022 Steam Field Operations and Forecast Report dated April 2022 as the Geothermal Operating Protocol effective July 1, 2022. This Operating Protocol is to remain in effect until replaced by the Commission.

## **BACKGROUND:**

The 2021 Operating Protocol for NCPA's Geothermal Facility used a two-zone strategy with wells on the west side of the NCPA lease producing to Plant #1, Units #1 and #2, while the wells on the east side of the NCPA lease produced to Plant #2, Unit #4. The 2021 Protocol allowed for reduction of load under the economic conditions listed below:

- Day Ahead Market Prices are a minimum of negative \$25 per MWhr.
- The level of curtailment will be limited to 45 MW with discretion to adjust this level based on the steam field response.
- Duration of the curtailment is to be a minimum of 4 hours.
- Curtailments are limited to once per calendar day.

The proposed Operating Protocol as described in the 2022 Steam Field Operations and Forecast Report recommends continuing to use the two-zone strategy, operate Plants #1 and #2 at baseload conditions with the goal of maximizing generation, and only reduce generation load when required. This Protocol establishes a 2022 annual peak generation target of 102.9 gross MW.

## **FISCAL IMPACT:**

The approved FY 2023 Geothermal budget covers the proposed action.

## **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 May 4, 2022, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD  
General Manager

Attachments (2):

- Resolution 22-XX
- 2022 Steam Field Operations and Forecast Report

**SR: XXX:22**



## RESOLUTION 22-XX

### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE 2022 STEAM FIELD OPERATIONS FORECAST REPORT AS THE 2022 GEOTHERMAL OPERATING PROTOCOL

(reference Staff Report #XXX:22)

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, and 79 steam production and injection wells connected by roads; and

WHEREAS, the 2022 Steam Field Operations Forecast Report is an in-depth study of The Geysers reservoir relative to the operation of NCPA's GEO facility and provides a generation forecast of the facility; and

WHEREAS, the Operating Protocol described in the 2022 Steam Field Operations and Forecast Report recommends continuing to use the current two-zone strategy, with wells on the west side of the NCPA lease producing to Plant #1, Units #1 and #2, while wells on the east side of the NCPA lease produce to Plant #2, Unit #4. This Protocol will maximize generation by base loading the geothermal facility while allowing for scheduling flexibility and reduction of load when operationally necessary; and

WHEREAS, the Operating Protocol establishes a 2022 annual peak generation target of 102.9 gross MW; and

WHEREAS, the approved FY 2023 Geothermal budget covers the proposed action; 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;

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency adopts the 2022 Steam Field Operations and Forecast Report dated April 2022 as the Geothermal Operating Protocol effective July 1, 2022, to remain in effect until replaced by the Commission

PASSED, ADOPTED and APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2022, by the following vote on roll call:

	<u>Vote</u>	<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	_____	_____	_____

\_\_\_\_\_  
DAVID HAGELE  
CHAIR

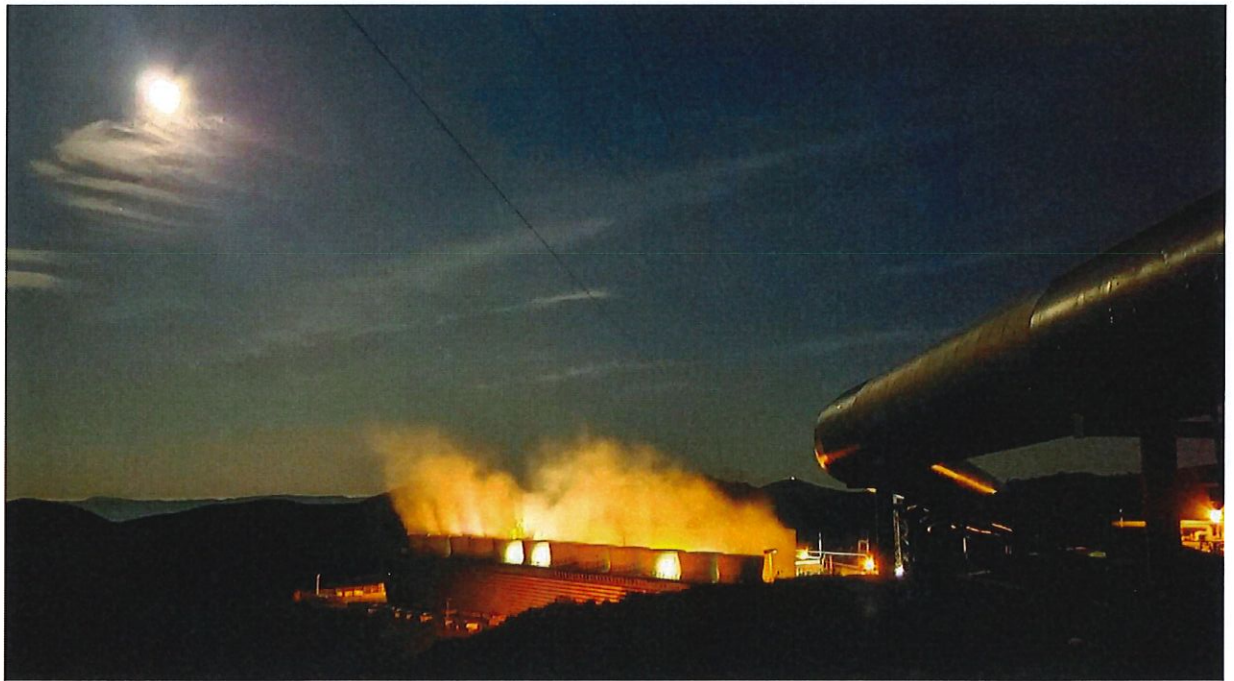
ATTEST:

\_\_\_\_\_  
CARY A. PADGETT  
ASSISTANT SECRETARY



# **Steam Field Operations**

## **& Forecast Report – April 2022**



**NCPA**  
**Generation Services – Geothermal Facilities**  
***Steam Field Operations and Forecast Report***

**April 2022**  
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**NCPA**  
**Generation Services Business Unit**  
***Steam Field Operations and Forecast Report***

April 2022

**Executive Summary**

This report provides an update on the status of the NCPA Geothermal Project. There are two main sections:

- I. A review of steam field operations, the water injection program, and the Geothermal Operating Plan.
- II. A review of 2021 reservoir performance with a generation forecast for 2022.

Analysis of geothermal reservoir during 2021 shows that steam production has moderated further and is now estimated at an 0.8% harmonic decline rate going forward. The peak generating capacity for 2021 was 108.8 MW gross or 100.5 MW net. Net generation for the year was 786.1 GWhrs.

Water injection continues to be essential in maintaining reservoir pressure and mitigating steam production decline rates. In 2021, the average water injection rate was 1,253 gpm. This water was composed of wastewater from the Southeast Geysers Effluent Pipeline (SEGEP) and steam condensate from the power plants. The SEGEP wastewater that is piped to the Geysers is shared between NCPA and a nearby power producer, Calpine. NCPA received 20.7% of the wastewater delivered in 2021. The amount of wastewater injected into the NCPA lease has been intentionally reduced over the last two years. Numerical modeling of the field indicated that reduced injection would result in higher steam production. The reduced steam decline rate appears to be evidence of this effect.

In 2022, water injection will continue to operate at reduced levels since California is still experiencing drought conditions. The drought conditions have impacted the amount of available wastewater from the SEGEP pipeline. The water piped to the lease is composed of approximately 50% freshwater from Clearlake and 50% secondary treated wastewater from Lake County Sanitation District. While Clearlake is located in Lake County, the water rights are owned by Yolo County and during drought conditions, the freshwater component is withheld from the SEGEP pipeline. The earliest this water will become available is May 1, 2023. In spite of the reduced amount of water, there have been no detrimental effects observed in the steam field. The field will continue to be closely monitored for any changes in decline rate.

The 2022 generation forecast projects the peak generating capacity to be 102.9 MW gross or 95.2 MW net for the year. NCPA geothermal facilities are forecast to generate 734.1 GWhrs net in 2022. For FY 2023, the net generation is forecast to be 734 GWhrs. The estimated 25 year projected net reserves are 16,840 GWhrs.

## **I. STEAM FIELD OPERATIONS**

### ***In This Section***

- ▶ Overview of Annual Production and Injection
- ▶ Water Injection Program
- ▶ Geothermal Operating Plan

### **A. Overview of 2021 Production and Injection**

NCPA continued to operate the Geothermal Project as a base load facility in 2021. Steam production for the year was 14.13 Glbs with water injection of 5.48 Glbs for an annual mass replacement ratio of 38.8%. Water injection on the NCPA lease is a combination of steam condensate recovered from the cooling towers and wastewater from the Southeast Geysers Effluent Pipeline (SEGEP). The water from the SEGEP pipeline is shared between NCPA and a nearby power producer. NCPA received 20.8% of the wastewater in 2021. The average total injection rate for NCPA decreased from 1,589 gpm in 2020 to 1,253 gpm in 2021.

The reduction in water injection was both intentional and unavoidable. Reservoir modeling studies indicated that reduced injection would lead to increased steam production and higher reservoir pressures. As a result, water injection was curtailed starting in August 2020 with the intent of improving reservoir conditions by causing a higher boil off rate and recovery of existing reserves.

Further, drought conditions due to lack of rainfall existed for most of the 2021 year. The SEGEP pipeline lost access to freshwater from Clearlake due to the drought conditions and operated at roughly one third its normal capacity.

The cumulative mass replacement ratio from plant startup in 1983 through 2021 was 66.7% (*Figure 1*). The net mass withdrawal of steam from the reservoir (Mass Produced less Mass Injected) through 2021 is 237 billion lbs.

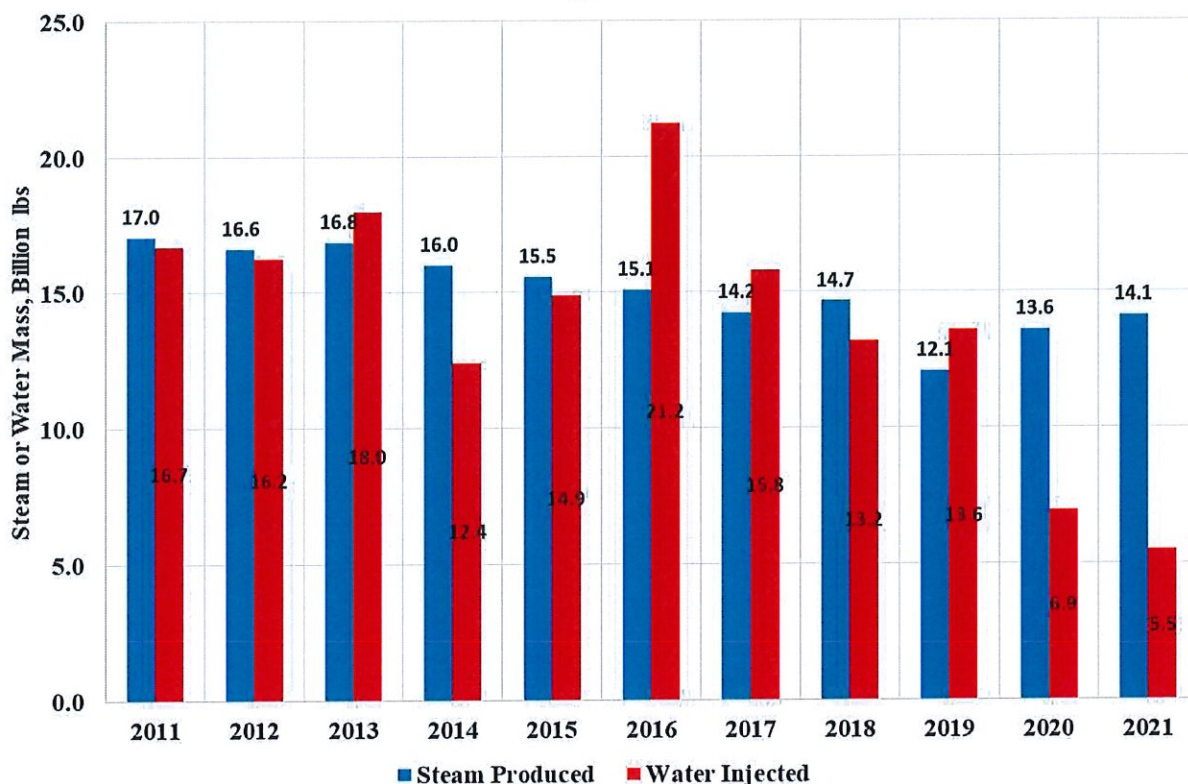
The average generation capacity level for 2021 was 96.1 MW gross or 89.7 MW net. These values were higher than forecast capacity of 93 MW gross or 82.9 MW net. The higher capacity values are attributed to higher steam production as a result of reduced water injection.

#### ***Production Highlights during 2021 include:***

- ▶ The 2021 peak gross generation level was 108.8 MW or 100.5 MW net.
- ▶ Average annual mass replacement in the reservoir or the percentage of steam production replaced by water injection was 38.8% in 2021. The 2021 average injection rate was 1,253 gpm.



**Historical NCPA Steam Production and Water Injection Levels**  
**Figure 2**



## **B. Water Injection Program**

NCPA continues to operate the steam field in the manner intended to maximize the recovery of injected water. In order to maximize recovery, it is important to have sufficient water and distribute it over the widest possible area of the field. It is also necessary to inject water at the lowest possible rate to maximize the heat transfer between the reservoir rock and water. Other factors that weigh into water injection strategy are targeting hotter zones of the field and higher gas concentrations within the reservoir. The water injection program discusses NCPA's supplemental water source, the Southeast Geysers Effluent Pipeline (SEGEP), current injection operations, micro-earthquake activity and non-condensable gas trends.

### **1. Southeast Geysers Effluent Pipeline (SEGEP)**

The Southeast Geysers Effluent Pipeline (SEGEP) project is a pipeline bringing water to The Geysers for the purpose of supplementing water injection in the field. During normal years, NCPA receives an average 2,700 gpm out of 5,600 gpm water that is delivered. Injection of this water into The Geysers reservoir helps mitigate reservoir pressure declines and increases steam reserves. *Figure 6* shows the historical SEGEP deliveries for NCPA and the total for the project.

California has experienced drought conditions over the last two years and as result, the water available from SEGEP has been severely restricted. During normal years, SEGEP wastewater is comprised a combination of secondary treated wastewater and freshwater taken from Clearlake. In 2021, this composition of water was 73% secondary treated wastewater and 27% freshwater taken from Clearlake. Note that even though Clearlake is located in Lake County, the water rights are owned by Yolo County. Those water rights expire in December 2026 and efforts are being made to ensure the freshwater component will remain available for future operation of the SEGEP pipeline.

The freshwater component of SEGEP is the main variable in determining how much water is available for injection and subject to an annual restriction if the water level in Clearlake gets too low. The Rumsey gauge in Lakeport is the official device measuring the lake level and if it drops below 3.5 ft on May 1 of each year, the SEGEP pipeline loses access to any freshwater. The lake level was 0.85 ft on May 1, 2021 and as of April 15, 2022 is 0.24 ft. Freshwater from Clearlake won't be available to supplement the secondary treated wastewater until at least May 1, 2023.

In spite of the reduced water injection, it has not negatively impacted the reservoir. In 2020, numerical modeling studies indicated that reduced water injection would increase recovery of reserves by increasing the boil off rate of previous injected water. As a result, overall injection was intentionally reduced to approximately 40% of the pre-drought level and steam production increased about 100 kph above expected levels. Numerical modeling results indicate that another year of reduced injection should continue to facilitate increased steam production along with a rebound of reservoir pressures and temperatures.

## **2. Injection Operations**

With reduced injection, there were seven different wells used for injection in 2021. The injection strategy continues to be an effort to spread water over large geographic area and limit injection rates down individual wells as much as possible. The 2021 overall injection rate of combined steam condensate and wastewater was 1,253 gpm and is a decrease from the 2020 rate of 1,589 gpm.

*Figure 7* shows the relative location of the seven injection wells on the NCPA lease. Three of these wells, E-8, P-7, and Q-10, are only connected to the SEGEP pipeline and therefore receive only effluent or wastewater. The remaining four wells received a combination of condensate and wastewater. *Figure 8* and *Table 1* show the relative amounts and type of water each well received in 2021.

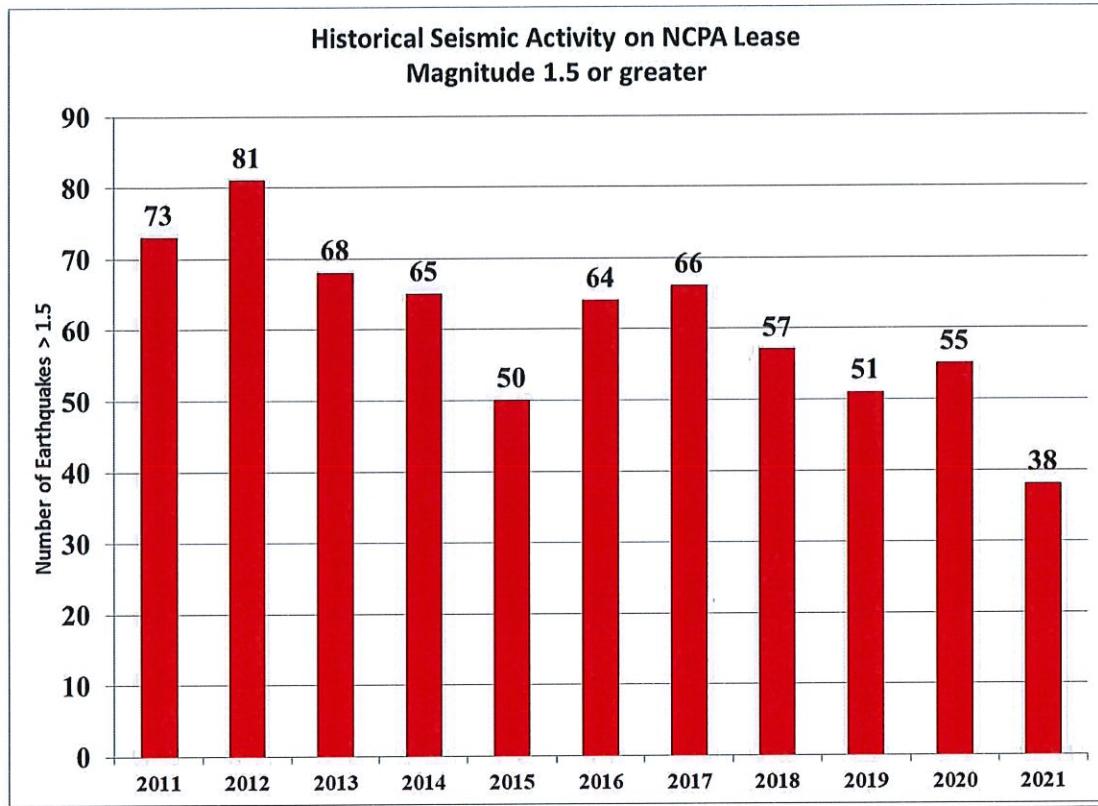
## **3. Micro-earthquake Activity**

Studies by the United States Geological Survey (USGS) and others have demonstrated that the steam production and water injection at The Geysers can cause frequent micro seismic events to occur. As a result, NCPA and the other operators are required to continuously monitor and report on the earthquakes that occur within The Geysers geothermal field. *Figure 9* is a map showing the locations of the 637 seismic events of magnitude 1.5 and larger that occurred within The Geysers field during 2021. Ten of



these events had an earthquake magnitude of 3.0 or greater. The three largest seismic events were all a magnitude 3.98. Two of the events occurred on the neighboring operator's lease. One event was on the NCPA lease.

On the NCPA lease, there were 38 events of M=1.5 or greater. The figure below shows the historical seismic activity for the NCPA lease from 2011 through 2022. The seismic activity for 2021 was significantly lower than in 2020.

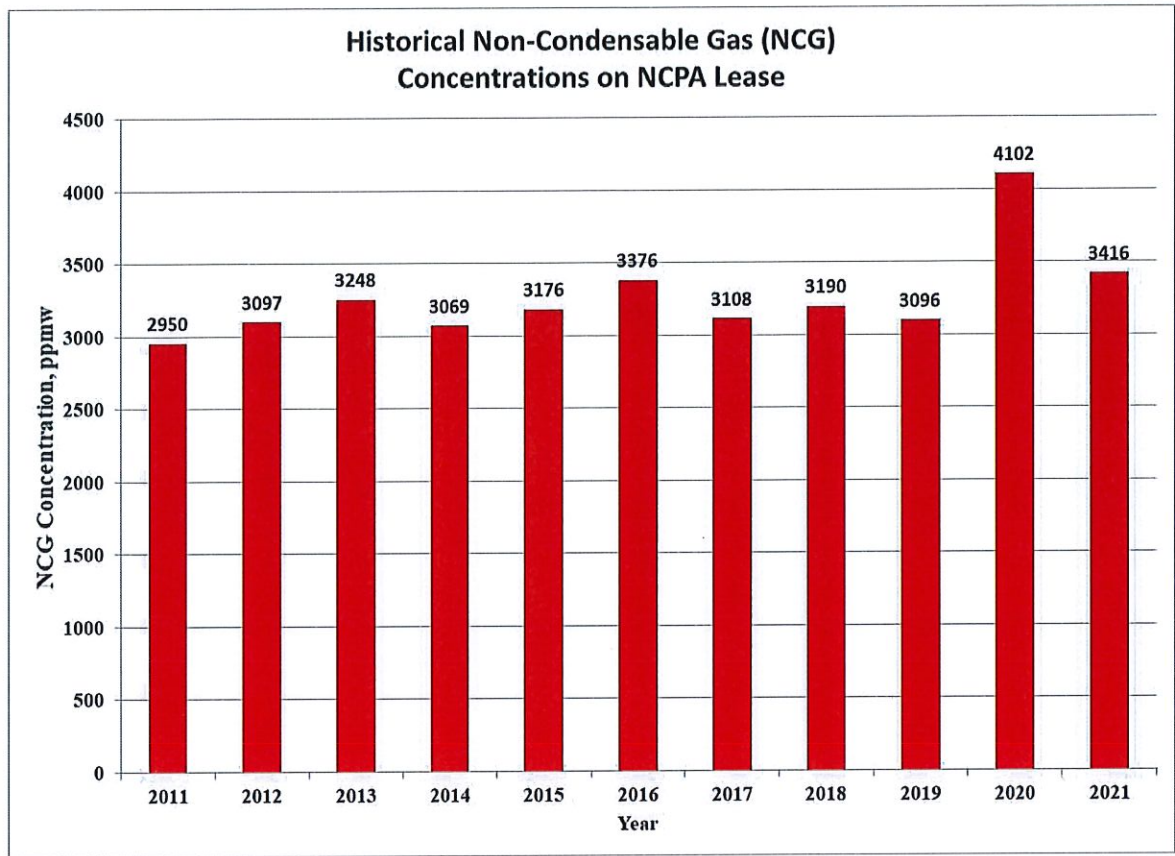


#### **4. Non-condensable Gas (NCG) Trends**

Non-Condensable Gas (NCG) is a natural product of the reservoir and may be present in varying concentrations within the steam that is produced at The Geysers. NCG production reduces plant efficiency and increases chemical treatment costs. The values vary significantly based on operating guidelines for the field, plant outages, or injection strategy. Water injection in areas of high gas concentration generally reduces NCG production and improves plant efficiency.

As shown in the graph below, NCG concentrations were down in 2021. Efforts to reduce NCG production continue to require either increased injection or a more targeted approach in places to inject water. Since the SEGEP pipeline will be operating at a reduced level in 2022 again, any available water should be directed toward the highest NCG production areas. A review of *Table 4* indicates that well pads E, P, and Q are likely targets. The figure below shows the overall NCG levels while Figure 10 shows the relative changes throughout the field.





***Injection Highlights during 2020 include:***

- ▶ Water injection continues at a reduced level and is approximately 40% of the pre-drought level.
- ▶ Starting in year 2020, the reduction in water injection was intentional as numerical modeling results indicated that reduced injection would eventually lead to increase steam production and a rebound in reservoir pressures and temperatures.
- ▶ California continues to experience drought conditions. The SEGEP pipeline will again lose access to freshwater from Clearlake until May 1, 2023. The reduced injection has resulted in increased steam production and this trend is expected to continue into 2023.
- ▶ Non-condensable gas production was down in 2021. Targeted injection will be necessary to keep the NCG level from rising in 2022.

### **C. Geothermal Operating Plan**

The Geothermal Project Operating Agreement requires the NCPA Commission to establish an Operating Plan and an annual operating level for the Geothermal Units. The purpose of the plan is to maximize the efficient use of the geothermal resource, protect the power plants and equipment, and meet all regulatory and permitting requirements.

The current 2021 Geothermal Operating Protocol was recommended by the Coordinated Operating Group (COG), the Generation Services Business Unit, and the NCPA Commission and approved by the NCPA Commission during the May 27, 2021 meeting. The Protocol used a two-zone strategy with wells on the west side of the NCPA lease producing to Plant #1, Units #1 and #2 while the wells on the east side of the NCPA lease produced to Plant #2, Unit #4. The 2021 Protocol also allowed for reduction of load under the economic conditions listed below.

- Day Ahead Market Prices are a minimum of negative \$25 per MWhr.
- The level of curtailment will be limited to 45 MW with discretion to adjust this level based on the steam field response.
- Duration of the curtailment is to be a minimum of 4 hours.
- Curtailments are limited to once per calendar day.

In 2022, the recommended Operating Protocol is to continue using the two-zone strategy, operate Plants #1 and #2 at baseload conditions with the goal of maximizing generation, and only reduce generation load when required. This Protocol establishes a 2022 annual peak generation target of 102.9 gross MW.

Curtailment of Plants #1 and #2 for economic conditions is possible, but not recommended due to the risk to the steam field and plant equipment. In addition, any curtailed generation would take an extended number of years to recover and therefore, not favorable to the agency.

### **2021 RESERVOIR PERFORMANCE REVIEW**

#### ***In This Section***

- ▶ Reservoir Pressure Distribution
- ▶ Reservoir Pressure and Flowrate Decline
- ▶ 2021 Generation Review
- ▶ 2022 Generation Forecast

Reservoir performance can be affected by a number of factors such as changes in the location or amount of water injected, the operating pressure of the field, gain or loss of production wells, or changes in the operation of nearby competitor leases. The effects of these changes on the reservoir are normally monitored by conducting pressure build-up tests on production wells, tracer tests on injection wells, and a continuous review of pressure, temperature, and flowrate data from the field. This section will discuss recent changes in reservoir pressure distribution, reservoir pressure decline, and steam field flowrate decline.



### **A. Reservoir Pressure Distribution**

One of the most important parameters in predicting and explaining reservoir performance is static reservoir pressure. *Figure 11* shows areal pressure distributions of static reservoir pressures for January 2021 and January 2022. In general, wells on the west side of the field have the lowest reservoir pressures (< 80 psig) and the east side of the field continues to be the higher pressure area.

### **B. Reservoir Pressure and Flowrate Decline**

Changes in reservoir pressure over time are a function of the mass-replacement ratio. By injecting steam condensate and supplementing it with wastewater from the Southeast Geysers Project, the decline in reservoir pressures has moderated or slowed with time.

In 2022, shut-in pressures were either recorded or estimated for 60 wells. The estimated average wellhead shut-in pressure is 72.6 psig. The average well on the NCPA lease flows 28,800 lb/hr at 42.1 psig.

The projected flowrate decline is shown in *Figure 13*. In 2021, the overall steam production rate averaged 1,734 klbs/hr. The flow rate in 2022 is projected to be 1,717 klbs/hr. The overall steam field decline has moderated further due to the reduced injection and is now projected to be a harmonic 0.8% going forward. Reservoir parameters of steam flow, pressure and temperature will be closely monitored in the upcoming year to determine if the impact of reduced water injection continues to match the numerical modeling results.

### **C. 2021 Generation Review**

Net generation for the NCPA Geo Facilities in 2021 was 786.1 GWhr. For FY 2022, it is estimated that net generation will be around 800.9 GWhrs. The 2021 peak gross generation level was 108.8 MW while peak net generation level was 100.5 MW.

### **D. 2022 Generation Forecast**

The updated forecast of future reservoir performance, and the resulting energy generation forecast for the NCPA geothermal plants, was developed using decline curve analysis. Included in the forecast are:

1. Operation of the steam field in a two-zone operation.
2. The continued benefits from the Southeast Geysers Effluent Pipeline Project.

The most recently developed forecast of steam field operations is illustrated in *Figure 12*. This graph shows NCPA's 39-year historical data for both steam production and water injection, and forecasts of production and injection out to year 2046. While total water injection is capable of replacing 100% of the annual steam production, water injection has been intentionally reduced to stimulate steam production. With drought conditions continuing

through 2022 and no negative effects to the reservoir from reduced injection rate, it's not certain when water injection will be increased again. Additional numerical modeling is recommended to study the long-term effects.

The total amount of steam capable of being produced by NCPA through year 2046 is currently estimated at 335.4 billion pounds. Remaining net generation reserves are estimated to be 16,840 GWhr. *Figures 14 and 15* respectively show the projected net generation capacity and total net generation amount for 2021 through 2046. *Table 5* details the annual gross and net generation. A more detailed monthly five year forecast can be found in *Table 6*.

In 2022, it is estimated that the Geo Facilities will generate 734.1 GWhrs net. The peak gross and net generation capacity for the year are respectively projected to be 102.9 MW gross and 95.2 MW net. For FY 2023, the net generation amount is projected to be 734 GWhrs.

## **SUMMARY**

### **Steam Field Operations**

- The NCPA lease produced 14.13 Glbs steam while injecting 5.48 Glbs of water resulting in an average mass replacement of 38.8% for the year.
- The peak gross generation level for 2021 was 108.8 MW gross while the net generation level was 100.5 MW net.
- The average water injection decreased from 1,589 gpm in 2020 to 1,253 gpm in 2021.

### **2021 Reservoir Performance Review**

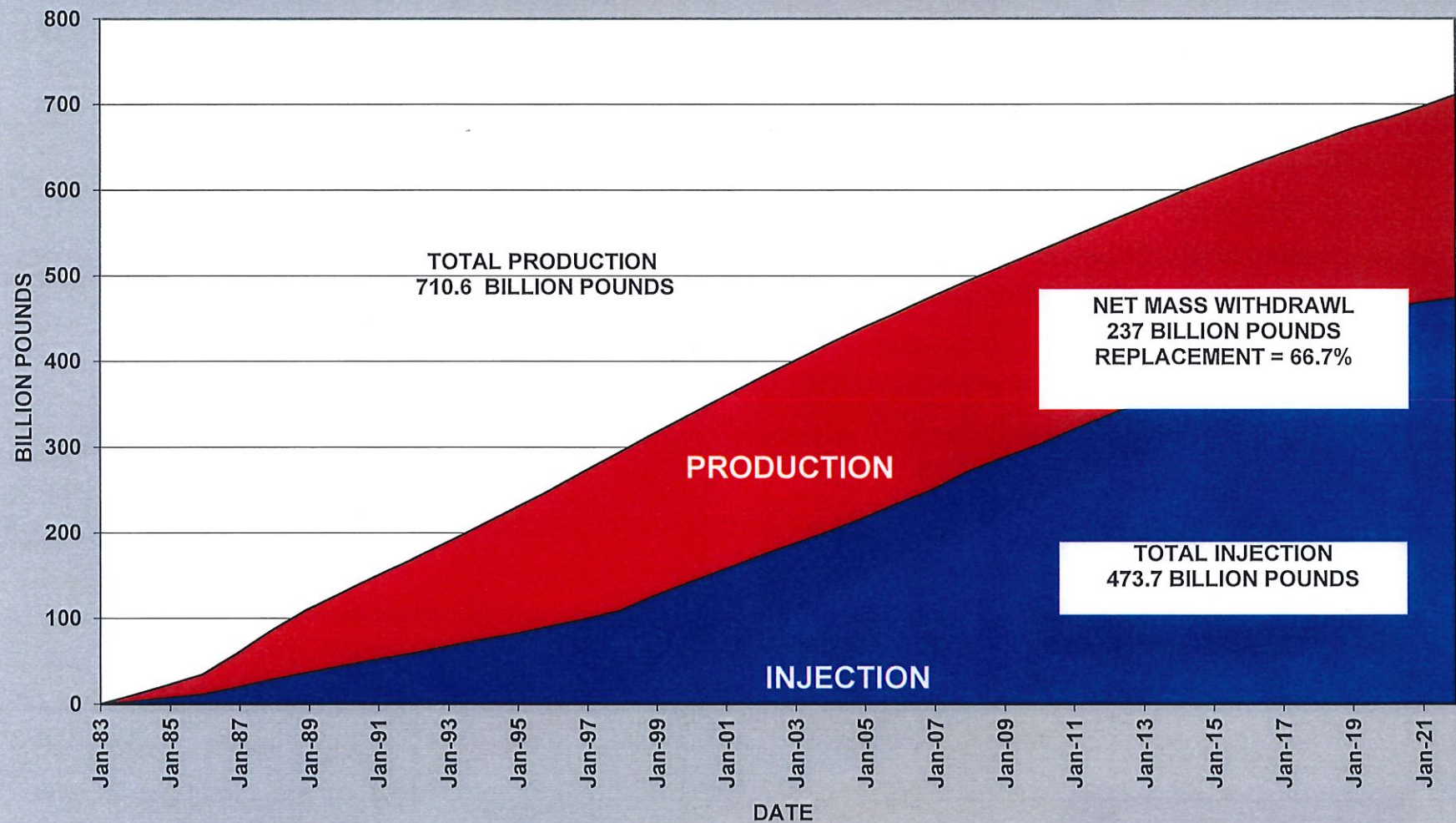
- Average shut-in wellhead pressure for the NCPA lease was 72.6 psig. The average well produces 28.8 kph at 42.1 psig.
- The steam field deliverability was 1,734 klbs/hr in 2021. The projected 2022 deliverability is 1,717 klbs/hr. The projected harmonic decline rate going forward is 0.8%.

### **2021 Generation Review and 2022 Generation Forecast**

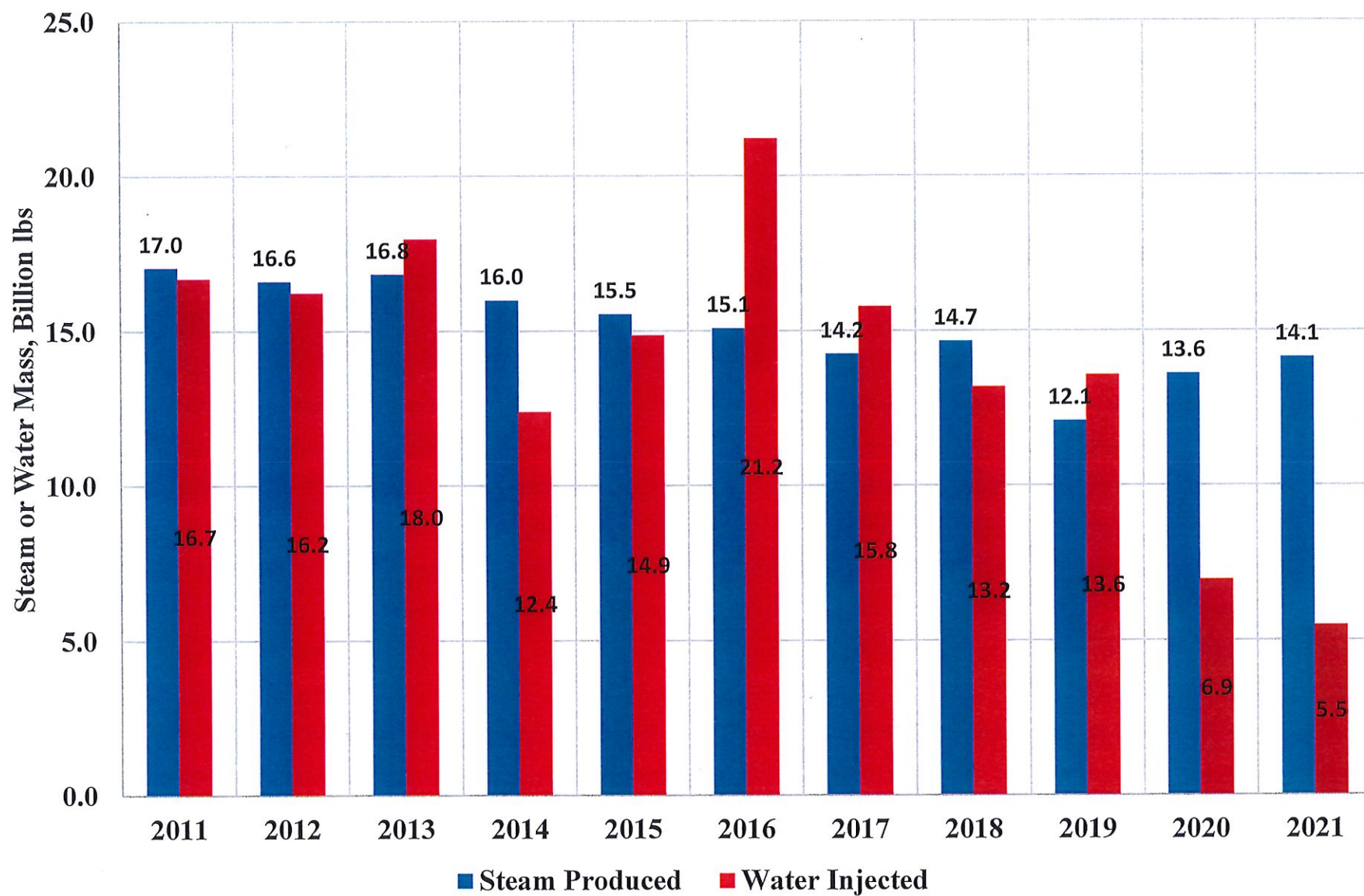
- Net generation for 2021 was 786.1 GWhrs. For FY 2022, net generation is projected to be 800.9 GWhrs.
- The generation forecast covers the period from 2021-2046. Recoverable steam reserves are 335.4 billion pounds with the total amount of remaining net generation estimated at 16,840 GWhr.
- The peak gross generation capacity for 2022 is expected to be 102.9 MW or 95.2 MW net.
- The net generation forecast for year 2022 is 734.1 GWhr net. For FY 2023, the net generation amount is projected to be 734 GWhrs.



**FIGURE 1  
NCPA STEAMFIELD  
CUMULATIVE PRODUCTION AND INJECTION**

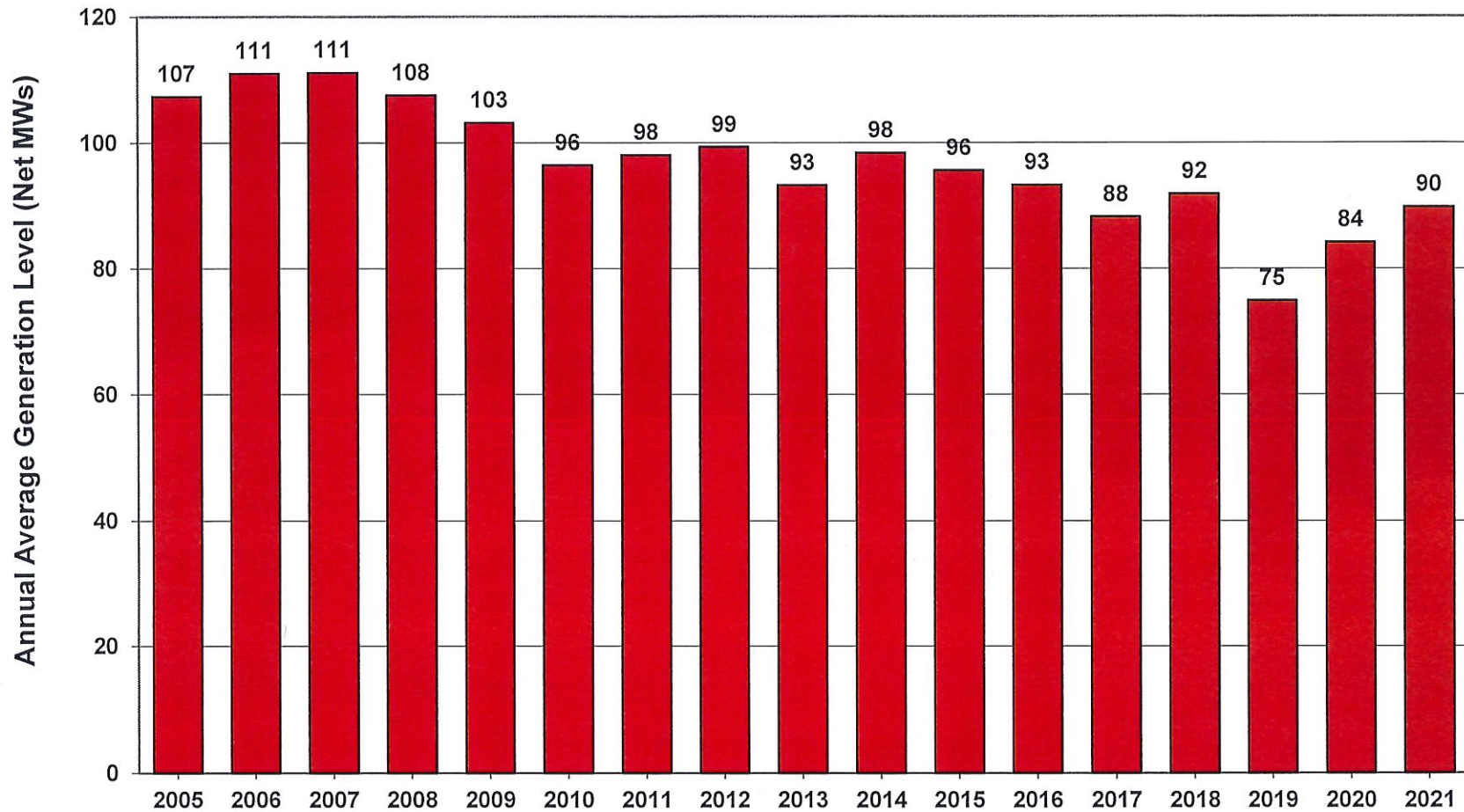


# **Historical NCPA Steam Production and Water Injection Levels** **Figure 2**



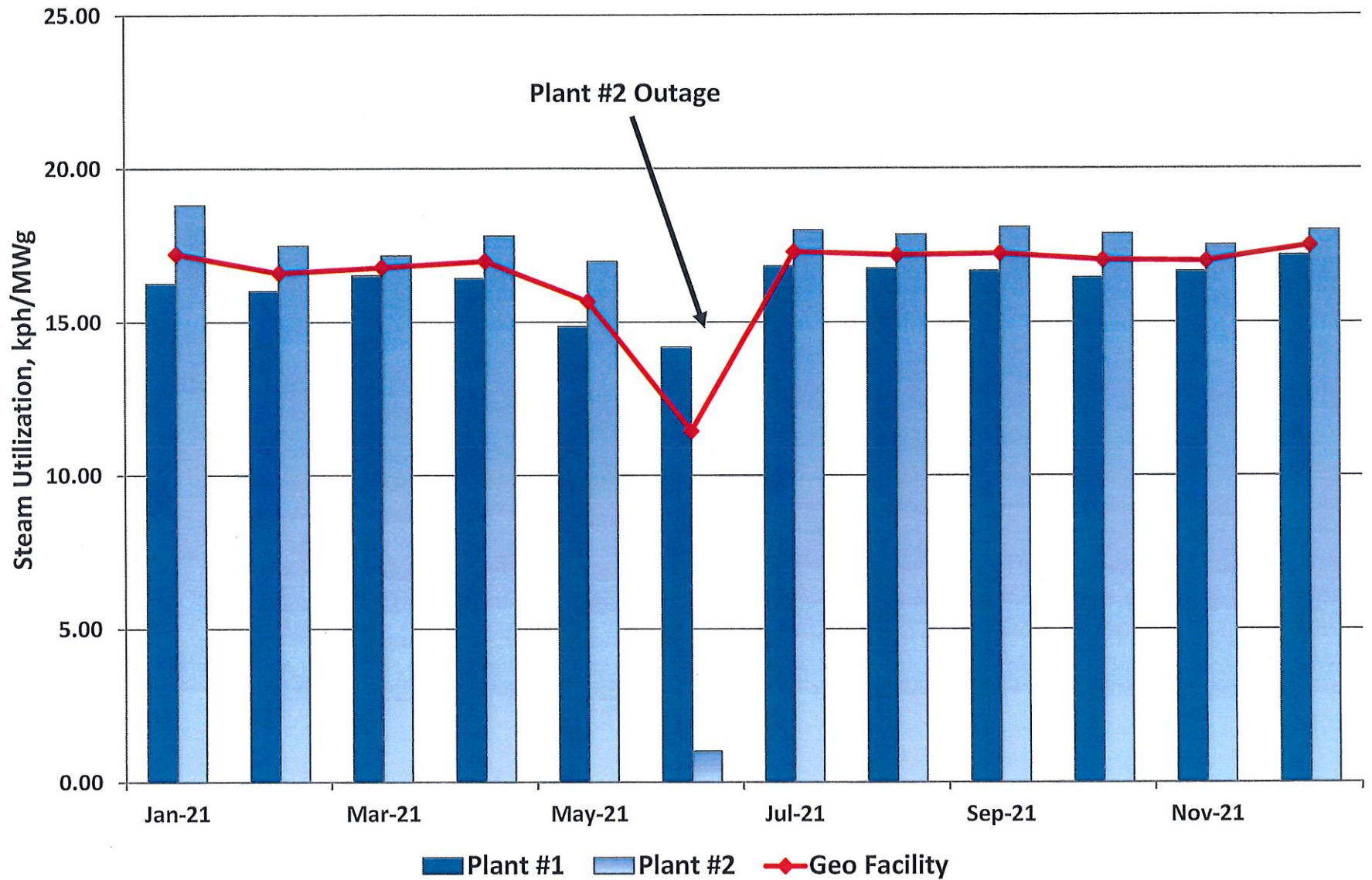


**Figure 3. Historical Power Generation Levels  
NCPA Geo Facilities**



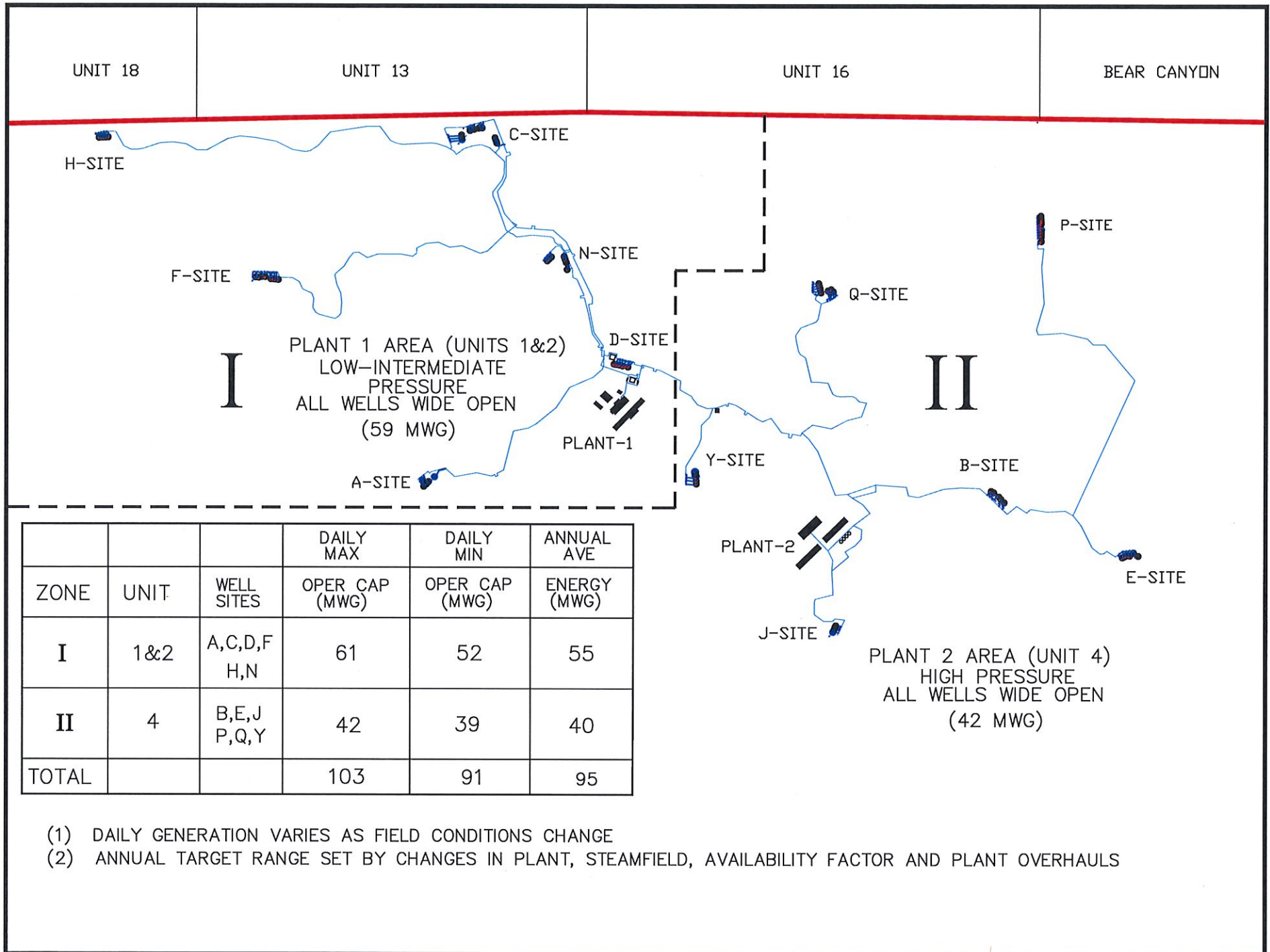
\*Generation levels include downtime for unit outages and overhauls

**2021 Gross Steam Utilization**  
**Figure 4**

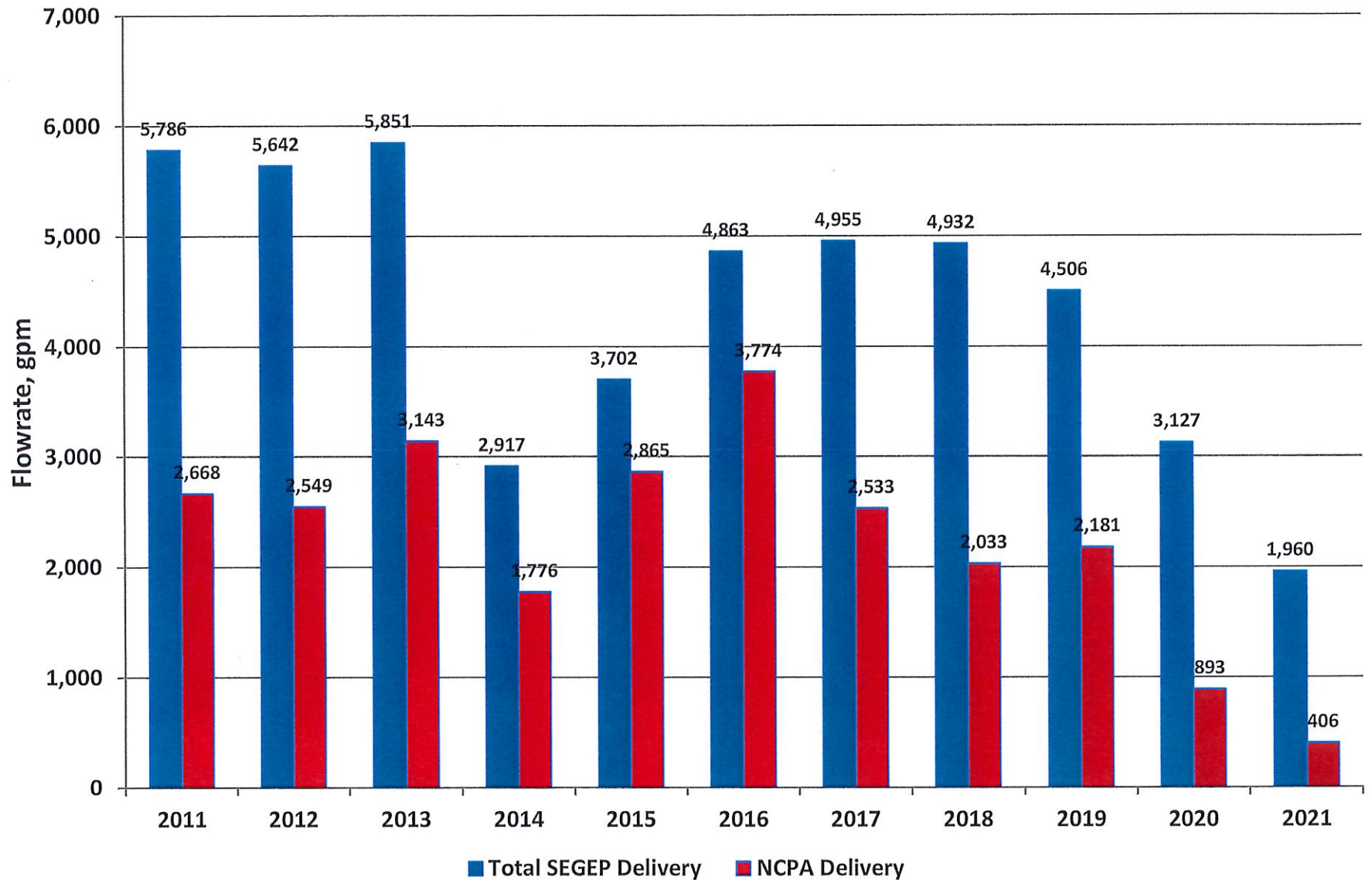




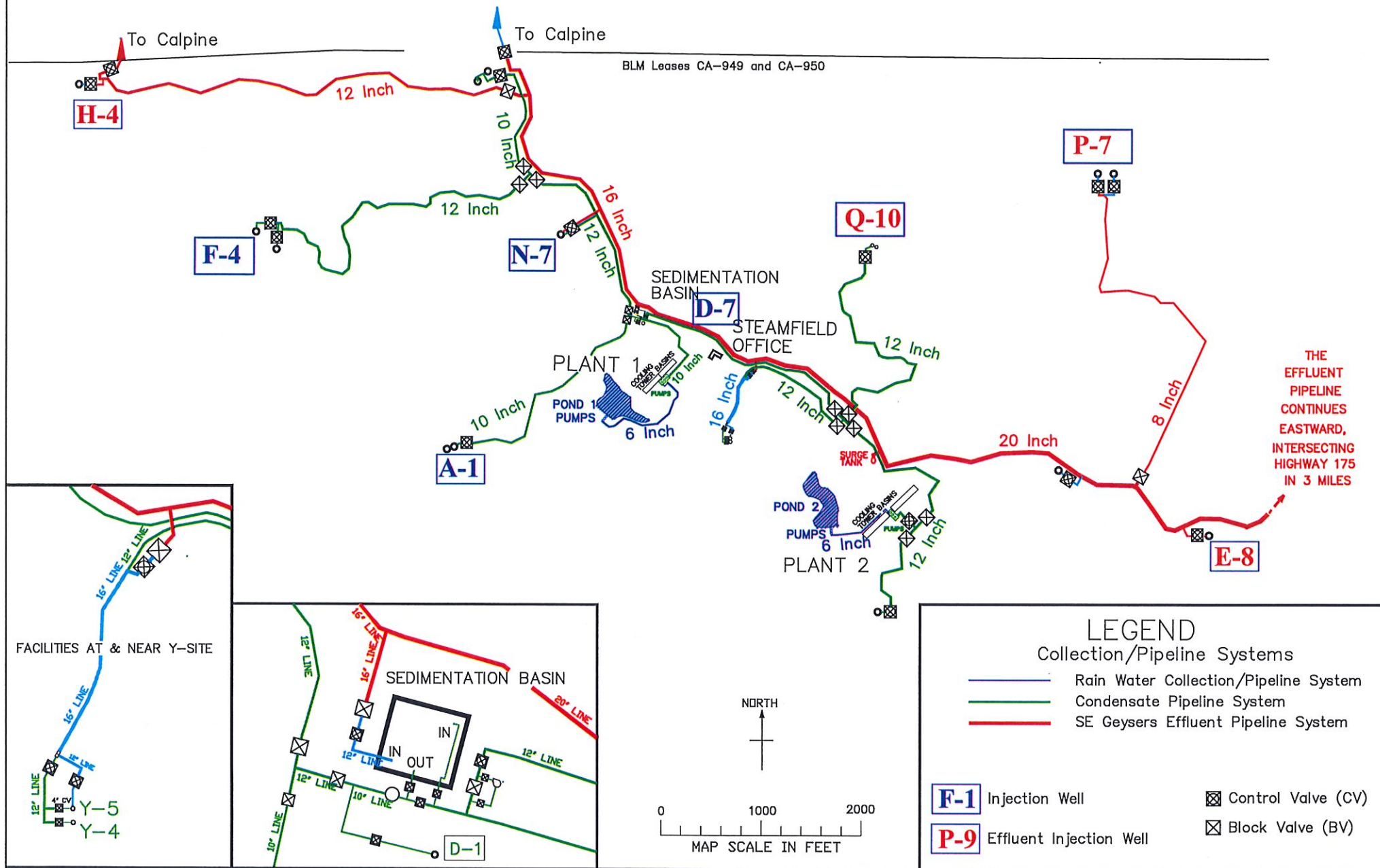
# Figure 5. GEOTHERMAL OPERATIONAL PLAN 2022



**Figure 6. History of SEGEP Deliveries Total and NCPA  
(Annual Average GPM)**

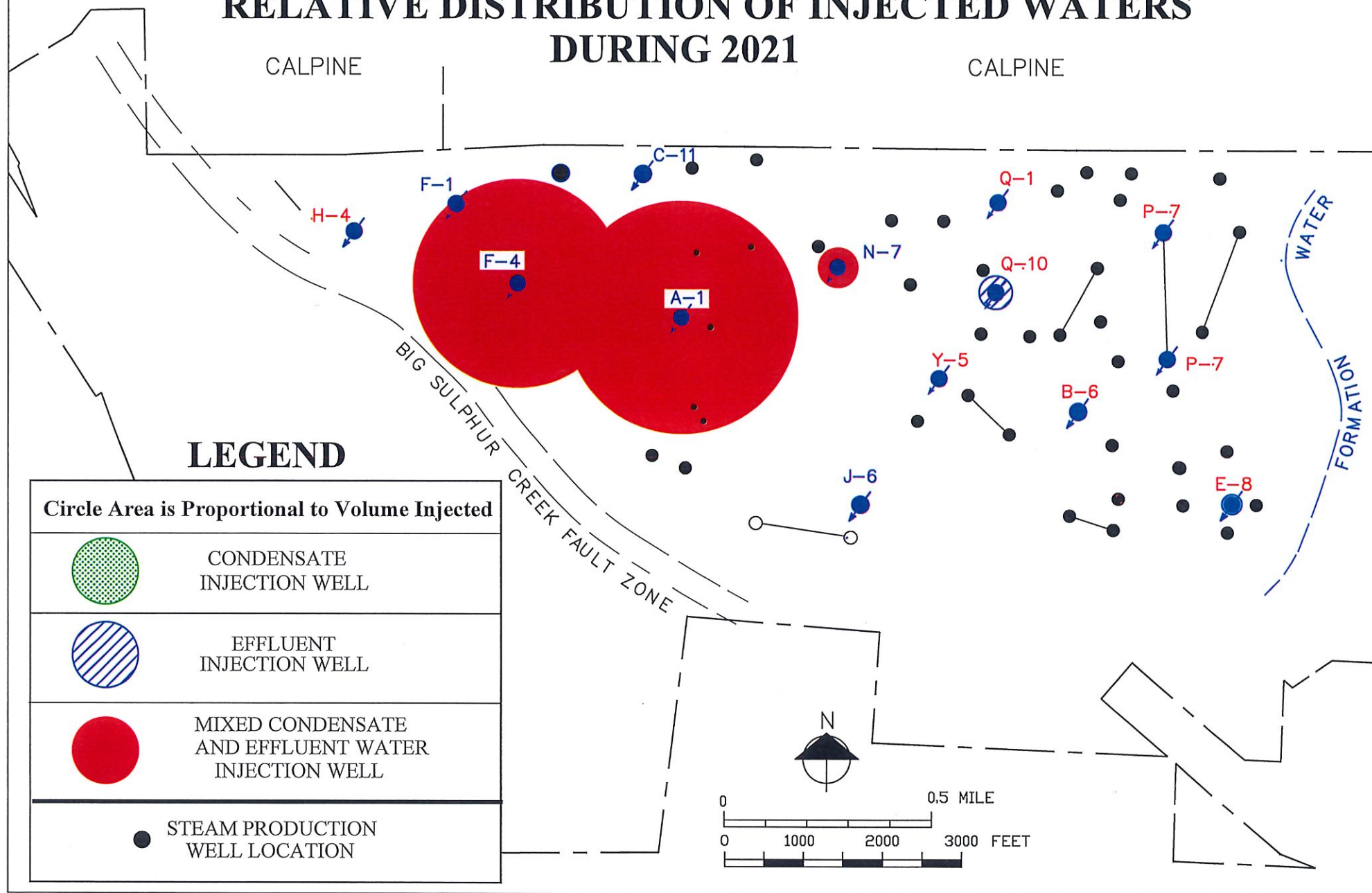


# FIGURE 7 MODIFIED PLAN OF INJECTION



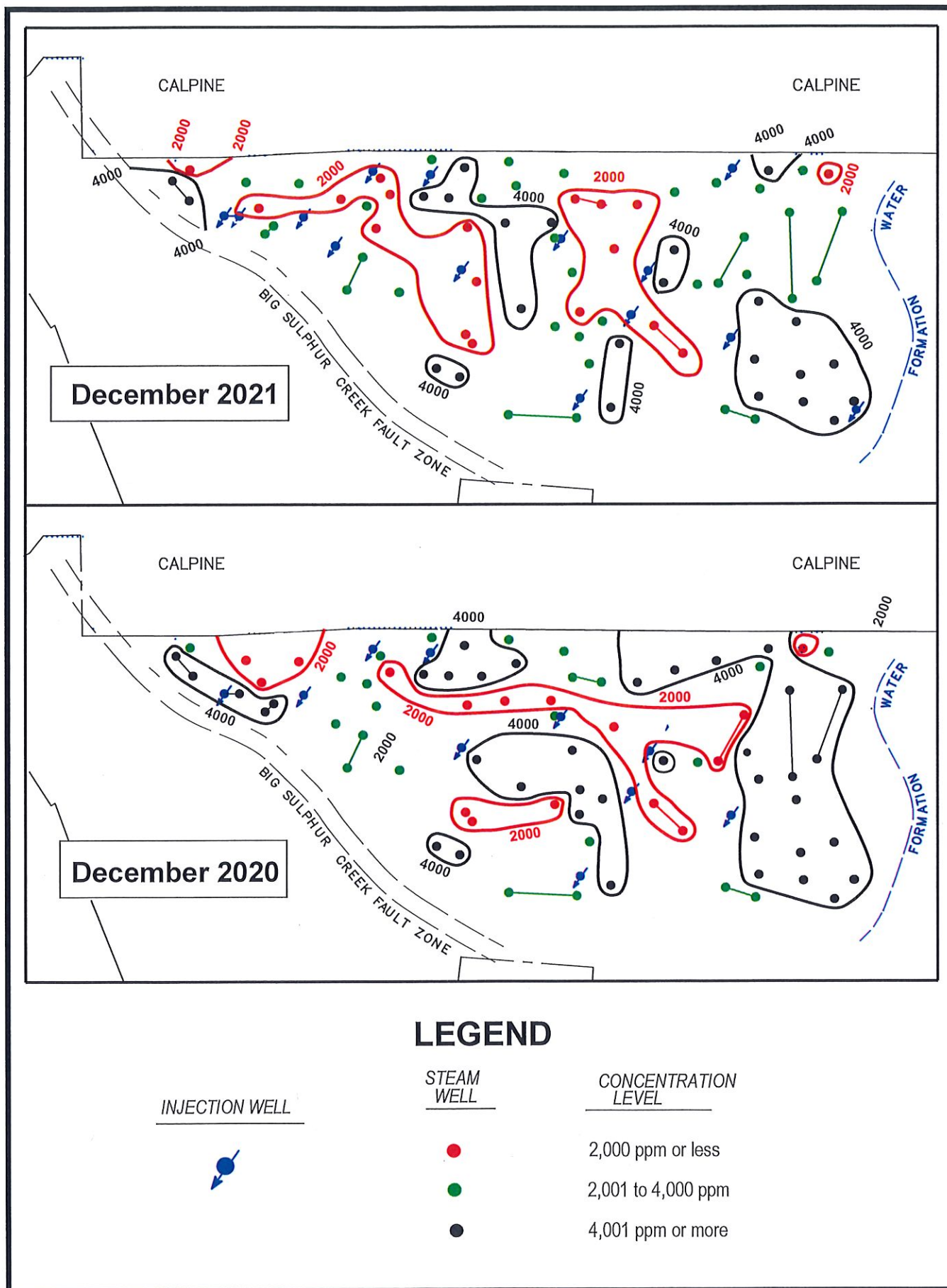


# FIGURE 8 NCPA STEAM FIELD RELATIVE DISTRIBUTION OF INJECTED WATERS DURING 2021





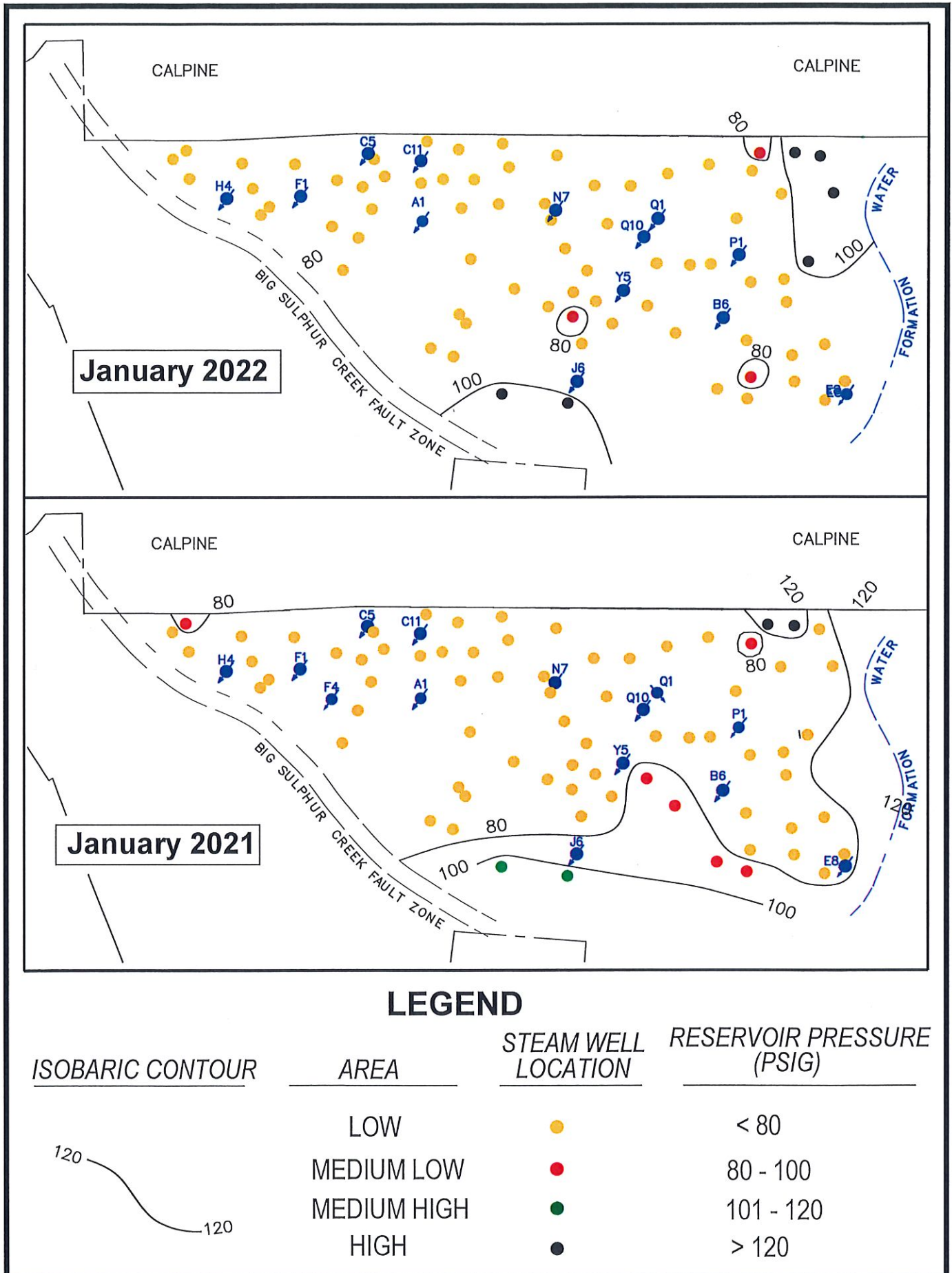
**FIGURE 10**  
**NONCONDENSABLE GAS CONCENTRATIONS**  
**IN NCPA STEAM (ppm)**





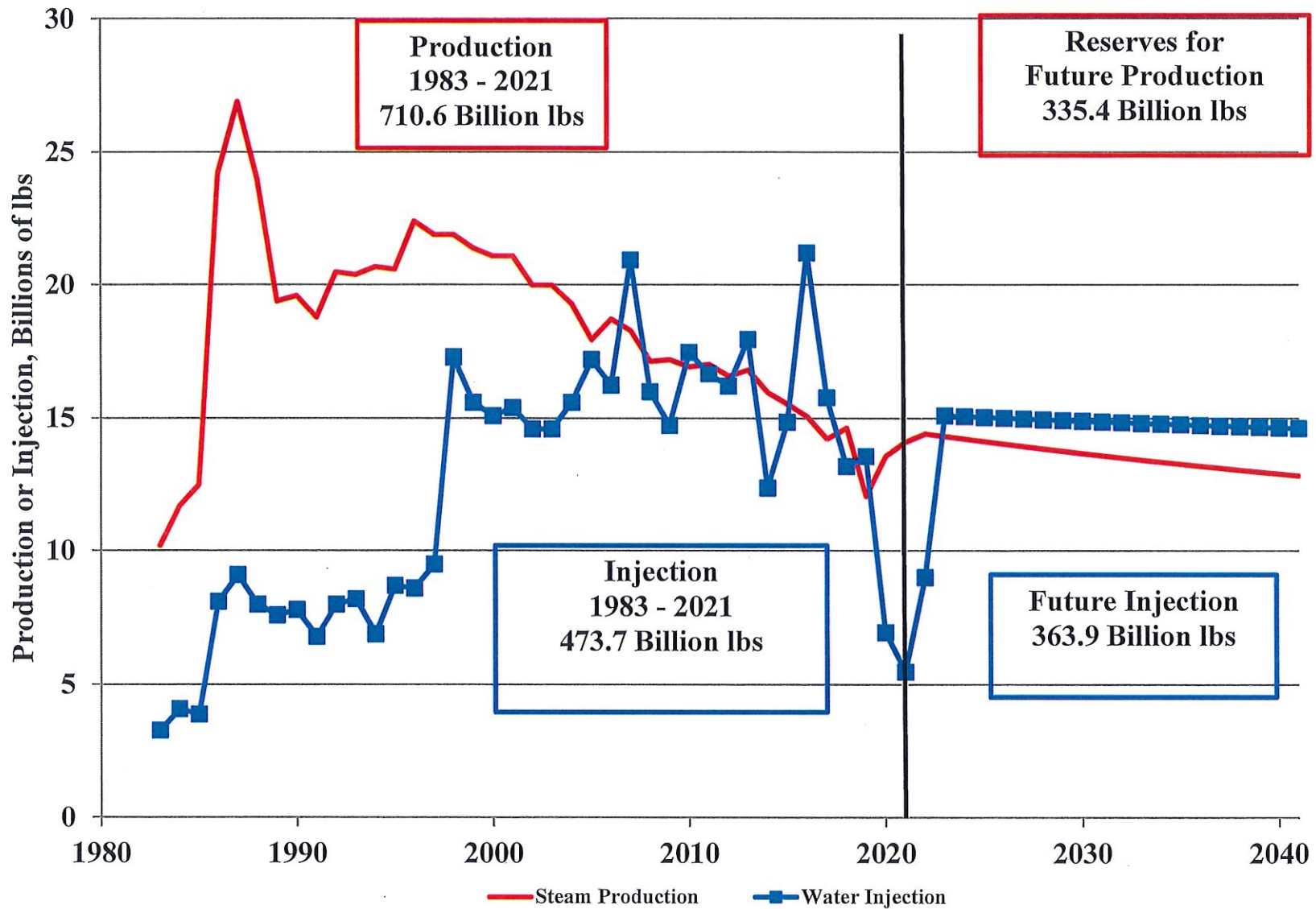
# FIGURE 11

## NCPA STEAM FIELD RESERVOIR PRESSURE



# Historical and Forecast Steam Production & Water Injection

## Figure 12

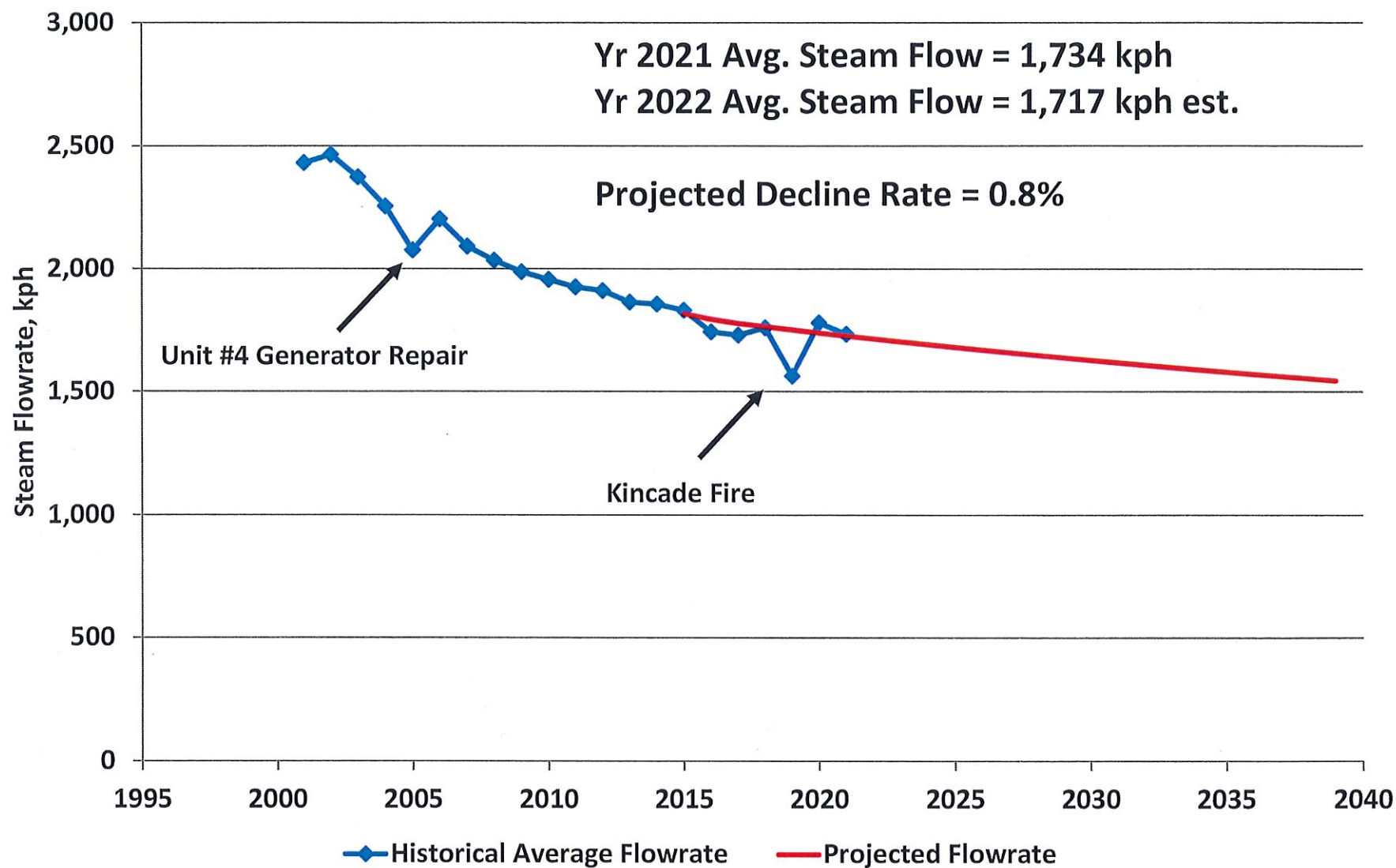




## Historical and Projected Steam Flowrates Combined

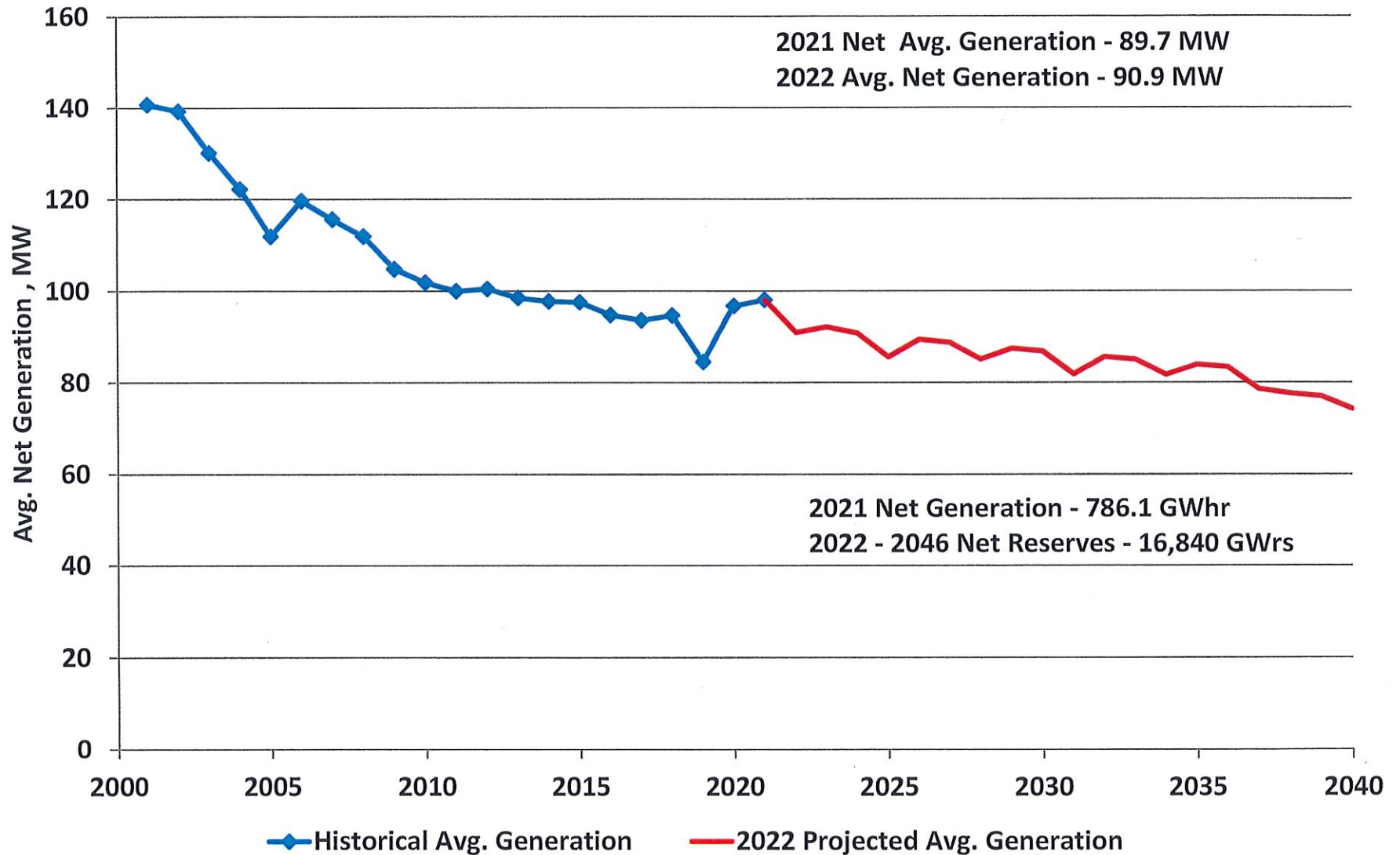
### NCPA Plant #1 & #2

Figure 13



## Historical and Projected Average Net Generation Level Combined NCPA Plants #1 & #2

Figure 14



## Historical and Projected Net Generation Combined NCPA Plants #1 & #2

Figure 15

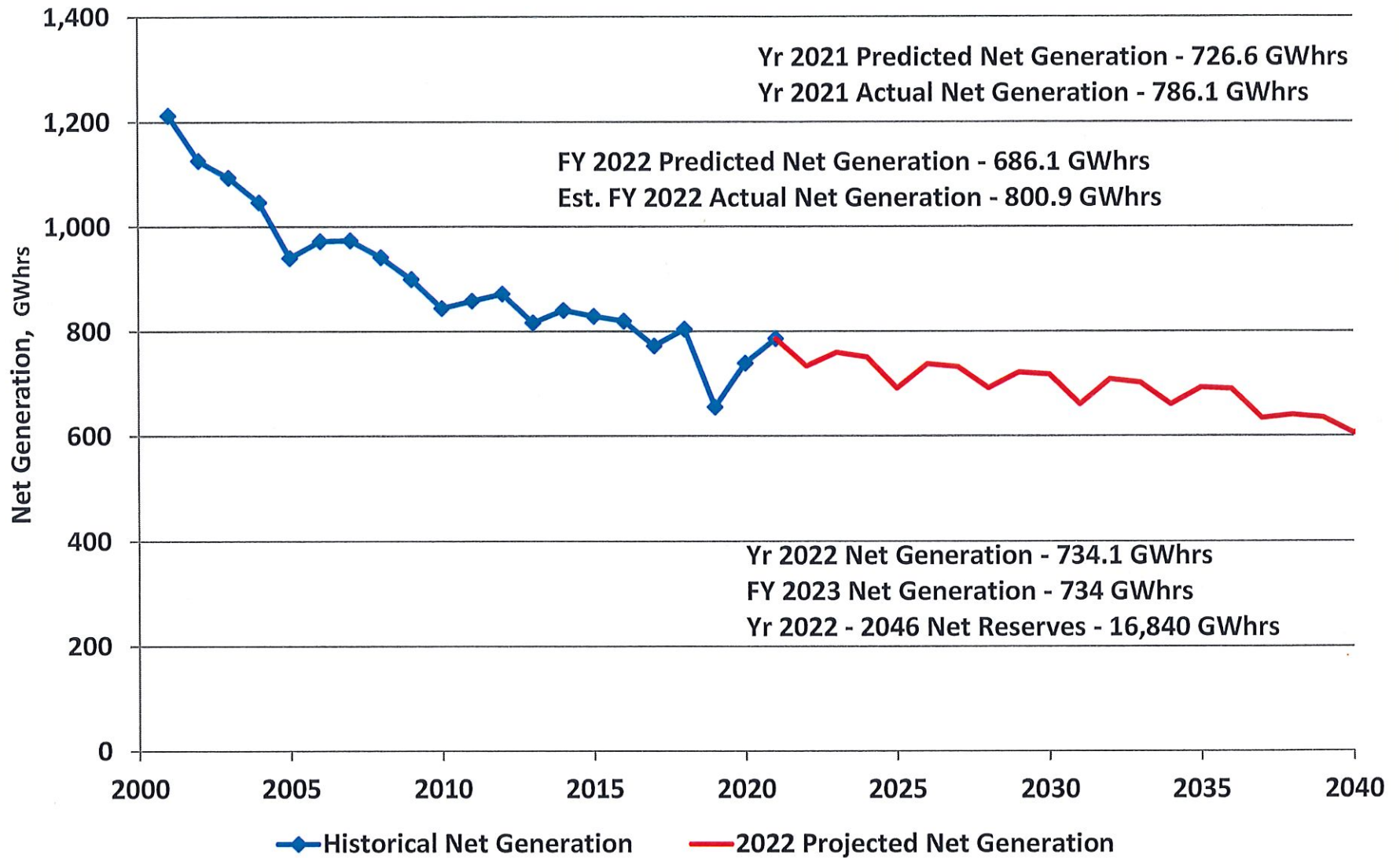




Table 1. ANNUAL REPORT OF NCPA INJECTION AT THE GEYSERS STEAM FIELD for Year 2021 (in 1000 Gallons)																	
		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Condensate <sup>(1)</sup>	Effluent <sup>(2)</sup>	Well Total	
Well																	
A-1	Condensate	14,092	17,591	22,682	8,518	16,350	17,013	19,660	21,223	20,678	26,485	11,771	29,439	225,501		278,789	
	Effluent	2,188	6,606	5,420	4,386	5,536	6,259	1,182	486	11,161	6,807	192	3,064		53,288		
<b>B-6</b>	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
C-5	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
C-11	Condensate	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-		
<b>E-8</b>	Effluent	7,404	16,731	-	-	-	-	-	-	-	-	-	-		24,135	24,135	
D-7	Condensate	-	-	-	-	-	-	-	-	-	-	3,217	5,057	8,274		8,809	
	Effluent	-	-	-	-	-	-	-	-	-	-	-	535		535		
F-4	Condensate	29,330	22,226	25,564	11,609	12,043	8,209	-	-	5,742	23,568	29,959	29,528	197,778		249,549	
	Effluent	3,574	8,413	5,775	5,286	4,635	4,127	-	-	9,744	6,467	229	3,521		51,771		
H-1	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
H-4	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
J-6	Condensate	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
N-2	Condensate	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-		
N-7	Condensate	10,580	9,926	1,109	-	-	-	-	-	-	2,693	-	1,089	25,396		46,920	
	Effluent	11,069	7,347	1,451	-	744	-	-	-	412	390	-	111		21,524		
<b>P-7</b>	Effluent	-	-	-	-	-	-	-	-	-	6,130	4,320	-		10,450	10,450	
<b>P-9</b>	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
<b>Q-10</b>	Effluent	8,416	1,014	4,411	3,178	2,112	-	-	-	9,715	8,684	-	2,222		39,752	39,752	
Q-3	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
Q-4	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
Q-7	Condensate	-	-	-	-	-	-	-	-	-	-	-	-			-	
	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-		
Q-1	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
Y-5		-	-	-	-	-	-	-	-	-	-	-	-				
Totals		86,653	89,854	66,412	32,977	41,420	35,608	20,842	21,709	57,451	81,224	49,688	74,566	Condensate(1) 456,950	Effluent(2) 201,454	Total 658,404	
		During each month the % of Effluent Pipeline water that was fresh water withdrawn from Clear Lake:										27%					
		56.3%	0.0%	88.9%	37.9%	0.0%	44.5%	99.5%	0.0%		0.0%	0.0%	0.0%				
Notes:	1. "Effluent" (pipeline) volumes are water from Clear Lake together with LACOSAN and Clearlake Oaks treated wastewater.																
	2. The 9 <b>Bold</b> well names in <i>italics</i> are located in Lake County (Central Valley Region), the 10 others are in Sonoma County (North Coast Region).																

**TABLE 2. GEOTHERMAL FACILITIES  
Summary Table**

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
<u>Generation ( gross)</u>										
(MWh)	936,868	886,004	922,995	903,299	887,299	833,211	874,403	711,902	833,866	841,946
(MW)	106.7	101.1	105.4	103.1	101.0	95.1	99.8	81.3	94.9	96.1
<u>Generation (net)</u>										
(MWh)	872,422	816,824	862,842	837,379	819,149	772,398	804,425	655,798	739,049	786,098
(MW)	99.3	93.2	98.5	95.6	93.3	88.2	91.8	74.9	84.1	89.7
<u>Protocol</u>										
(MW gross)	108	108	107	107	107	105	105	102	101	104
<u>Steam Conversion</u>										
(Lbs / Kw Gross)	17.72	18.99	17.33	17.20	17.00	17.10	16.76	16.97	16.31	16.78
<u>Steam Delivered</u>										
(Billion Lbs)	16.6	16.83	16.00	15.54	15.08	14.24	14.65	12.08	13.60	14.13
<u>Load Flexibility (gross)</u>										
Monthly High (MW)	110	109	110	110	110	103	105	110	107	109
Monthly Low (MW)	105	82	104	104	103	77	83	68	67	55
<u>Injection</u>										
Total (Billion Lbs)	16.22	17.96	12.39	14.86	21.21	15.78	13.19	13.57	6.95	5.48
Condensate (Billion Lbs)	5.00	4.21	4.62	4.20	4.94	4.64	4.36	3.86	3.29	3.80
Effluent (Billion Lbs)	11.18	13.75	7.77	12.50	16.27	11.13	8.83	9.71	3.67	1.68
<u>Mass Replacement</u>										
Annual (%)	97.7%	106.7%	77.5%	95.6%	140.6%	110.8%	90.0%	112.3%	51.1%	38.8%
Cumulative (%)	60.9%	62.2%	62.6%	63.4%	65.2%	66.2%	66.7%	67.5%	67.1%	
<u>Wells Used For Injection</u>										
	15	13	12	13	11	10	10	8	6	6
<u>NCPA Micro-seismic Activity M&gt;= 1.5</u>										
	81	68	58	50	64	66	57	51	55	38
<u>NCPA Micro-seismic Activity Maximum Magnitude Event</u>										
	2.91	3.76	4.38	2.99	3.37	2.92	3.09	2.84	2.86	3.98
<u>NCG Concentration (ppmw)</u>										
	3,097	3,248	3,069	3,176	3,376	3,108	3,190	3,096	4,102	3,416



**Table 3**  
**RESERVOIR PRESSURE**  
**BY WELL 2022**

WELL	PRESS	WELL	PRESS	WELL	PRESS	WELL	PRESS
A-3	67.8	D-1	67.2			P-1	
A-4	72.4	D-2	81.3	H-1	64.4	P-2	98.9
A-5	69.3	D-6	77.1	H-2	79.7	P-4	72.7
A-6	71.7	D-7	67.8	H-3	72.7	P-5	129.7
A-SITE	70.3	D-8		H-4	63.6	P-6	123.9
		D-SITE	73.4	H-5	63.9	P-7	73.5
B-2				H-SITE	68.9	P-8	132.7
B-3	75.7	E-1	74.3			P-9	75.3
B-4	72.3	E-2	74.8	J-2		P-SITE	101.0
B-5		E-3	80.7	J-3	61.2		
B-6		E-4	74.6	J-4	69.9	Q-1	
B-SITE	74.0	E-5	70.2	J-5	142.8	Q-3	
		E-6	73.7	J-SITE	91.3	Q-4	67.9
C-1	59.6	E-8	70.0			Q-5	69.9
C-2	59.0	E-SITE	74.7			Q-6	70.2
C-4	61.1			N-1	64.0	Q-7	68.7
C-5	54.4	F-1	62.6	N-2	58.5	Q-8	69.6
C-6	55.8	F-2	67.6	N-3	67.4	Q-9	79.4
C-7	55.9	F-3	68.6	N-4	65.7	Q-SITE	71.0
C-8	65.3	F-4	67.8	N-5	59.9		
C-9		F-5	70.9	N-6	65.1	Y-1	71.5
C-10	39.1	F-6	67.0	N-SITE	63.4	Y-2	65.7
C-SITE	56.3	F-7	65.0			Y-3	
		F-SITE	67.1			Y-4	
						Y-5	
						Y-SITE	68.6

VALUES ARE FROM PRESSURE BUILD- UP TESTS  
SHADED NUMBERS ARE FOR DATA OBTAINED FROM OTHER STATIC  
PRESSURE OBSERVATIONS

60 WELLS TESTED      AVE. SHUT-IN WELL PRESS EQUALS      72.6 psig

AVE SITE PRESS EQUALS      73.3 psig

AVE. FLOWRATE =      28.8 kph at      42.1 psig

TABLE 4 NCG CONCENTRATIONS (PPMW) 2020 BY WELL, AND SITE AND PROJECT											
WELL		NCG		WELL		NCG		WELL		NCG	
A-3	5989	D-1	3412	H-1	2343	P-1					
A-4	2898	D-2	2456	H-2	901	P-2	17802				
A-5	2307	D-6	2241	H-3	5105	P-4	2838				
A-6	1945	D-7		H-4		P-5					
A-SITE	3285	D-8	3319	H-5	3205	P-6	1814				
		D-SITE	1805	H-SITE		2889		P-7			
B-2	5460					P-8	3002				
B-3	5871	E-1	12669	J-2	5149	P-9					
B-4	3897	E-2	6007	J-3	1538	P-SITE		6364			
B-5	3216	E-3	4817	J-4	2835						
B-6		E-4	7707	J-5	2347	Q-1					
B-SITE	4611	E-5	11218	J-SITE		2967		Q-3	4450		
		E-6	5360			Q-4	995				
C-1	2616	E-SITE		7963		N-1	2319	Q-5	2186		
C-2	5012					N-2	1238	Q-6	1844		
C-4	3468	F-1	2287			N-3	1010	Q-7	14297		
C-5	13186	F-2	1413			N-4	4559	Q-8	2321		
C-6	6207	F-3	1509			N-5	2685	Q-9	3315		
C-7	5494	F-4				N-6	2819	Q-A			
C-8	2881	F-5	3009	N-SITE		2438		Q-SITE		4201	
C-9		F-6	420								
C-A	1495	F-7	1924					Y-1	1939		
C-SITE	5045	F-SITE		1760				Y-2	4724		
								Y-3	7060		
								Y-4	5405		
								Y-5	4338		
								Y-SITE		4782	
VALUES ARE FROM NCPA CHEM LAB ANALYSIS											
Number of wells samples wells sampled=										61	
AVG. WELL NCG =										4231	
AVG. SITE NCG =										4009	
NCG Flow Weighted Avg. =										3416	

## 2022 Generation - 25 Year Forecast

**Table 5**

Year	Total Geo Facilities		Plant #1		Plant #2	
	Gross	Net	Gross	Net	Gross	Net
	Generation GWhr	Generation GWhr	Generation GWhr	Generation GWhr	Generation GWhr	Generation GWhr
2022	796.5	734.1	496.3	452.7	300.2	281.4
2023	838.4	760.2	503.0	446.1	335.5	314.1
2024	834.9	751.4	503.1	441.0	331.8	310.4
2025	768.2	692.2	441.7	387.0	326.5	305.1
2026	821.4	738.1	499.2	437.3	322.2	300.8
2027	816.0	732.7	498.0	436.1	318.1	296.7
2028	759.8	692.4	498.1	436.0	261.7	256.4
2029	805.5	722.2	495.5	433.6	310.0	288.6
2030	801.8	718.3	495.6	433.5	306.1	284.8
2031	737.5	661.5	435.1	380.5	302.4	281.0
2032	792.7	709.2	493.2	431.1	299.5	278.1
2033	785.7	702.4	490.6	428.7	295.1	273.7
2034	741.7	661.3	489.4	427.5	252.3	233.8
2035	776.4	693.1	488.2	426.3	288.2	266.8
2036	773.9	690.4	488.3	426.3	285.6	264.2
2037	710.3	634.3	428.7	374.1	281.5	260.2
2038	724.1	640.8	484.6	422.7	239.5	218.1
2039	719.1	635.8	483.5	421.5	235.7	214.3
2040	687.0	606.1	483.6	421.5	203.3	184.6
2041	709.5	626.2	481.1	419.2	228.4	207.0
2042	706.1	622.7	481.3	419.2	224.9	203.5
2043	644.0	568.0	422.6	367.9	221.5	200.1
2044	697.8	614.2	479.0	416.9	218.8	197.3
2045	691.5	608.2	476.5	414.6	215.0	193.6
2046	705.6	624.5	475.4	413.5	230.3	211.0

Notes:

1. Assumes 3 unit operation.
2. Steam Reserves: 335.4 Billion lb.
3. Gross Reserves: 18,845 GWhr
4. Net Reserves: 16,840 GWhr
5. Plant #1 Auxiliary Load is varies from 5.6 MW to 7.5 MW depending on SEGEP Pump Operation  
Plant #2 Auxiliary Load is fixed at 2.58 MW.
6. See Table 5B for scheduled outages.



**2022 Generation Capacity - 25 Year Forecast**  
**Table 5A**

Year	Plant #1		Plant #2		Total	
	Avg. Gross	Avg. Net	Avg. Gross	Avg. Net	Avg. Gross	Avg. Net
	Gen.	Gen.	Gen.	Gen.	Gen.	Gen.
	MW	MW	MW	MW	MW	MW
2022	61.1	56.0	41.7	39.2	102.9	95.2
2023	61.0	55.4	40.9	38.3	101.9	93.7
2024	60.9	53.4	40.3	37.8	101.2	91.1
2025	60.7	53.2	39.8	37.2	100.5	90.4
2026	60.6	53.1	39.3	36.7	99.8	89.7
2027	60.4	52.9	38.8	36.2	99.2	89.1
2028	60.3	52.8	38.3	35.7	98.5	88.4
2029	60.1	52.6	37.8	35.2	97.9	87.8
2030	60.0	52.5	37.3	34.7	97.3	87.2
2031	59.8	52.3	36.8	34.3	96.6	86.6
2032	59.7	52.2	36.4	33.8	96.0	86.0
2033	59.5	52.0	35.9	33.4	95.5	85.4
2034	59.4	51.9	35.5	32.9	94.9	84.8
2035	59.2	51.7	35.1	32.5	94.3	84.2
2036	59.1	51.6	34.7	32.1	93.8	83.7
2037	58.9	51.4	34.3	31.7	93.2	83.1
2038	58.8	51.3	29.2	26.6	88.0	77.9
2039	58.6	51.1	28.8	26.2	87.4	77.3
2040	58.5	51.0	28.3	25.7	86.8	76.7
2041	58.4	50.9	27.9	25.3	86.2	76.1
2042	58.2	50.7	27.4	24.8	85.6	75.6
2043	58.1	50.6	27.0	24.4	85.1	75.0
2044	57.9	50.4	26.6	24.0	84.6	74.5
2045	57.8	50.3	26.2	23.6	84.0	73.9
2046	57.7	50.2	31.2	28.6	88.8	78.7

\* Peak generation levels that plants are capable of achieving.

## 2022 Scheduled Outages - 25 Year Forecast

**Table 5B**

Year	Plant #1		Plant #2
	Unit 1	Unit 2	Unit 4
	Scheduled	Scheduled	Scheduled
	Outages	Outages	Outages
	hrs	hrs	hrs
2022	72	72	1008
2023	72	72	72
2024	72	72	72
2025	672	672	72
2026	72	72	72
2027	72	72	72
2028	72	72	1008
2029	72	72	72
2030	72	72	72
2031	672	672	72
2032	72	72	72
2033	72	72	72
2034	72	72	1008
2035	72	72	72
2036	72	72	72
2037	672	672	72
2038	72	72	72
2039	72	72	72
2040	72	72	1008
2041	72	72	72
2042	72	72	72
2043	672	672	72
2044	72	72	72
2045	72	72	72
2046	72	72	1008

**2022 Generation - 5 Year Forecast**

**Table 6**

Date	Total Geo Facilities		Plant #1		Plant #2	
	Gross	Net	Gross	Net	Gross	Net
	Generation GWhr	Generation GWhr	Generation GWhr	Generation GWhr	Generation GWhr	Generation GWhr
Jan-22	74.9	69.9	44.4	41.3	30.5	28.6
Feb-22	67.7	63.2	39.7	36.9	28.0	26.3
Mar-22	55.5	51.2	29.3	26.6	26.3	24.6
Apr-22	70.1	64.5	41.8	38.0	28.3	26.5
May-22	72.4	66.6	43.2	39.2	29.2	27.3
Jun-22	70.0	64.4	41.8	38.0	28.2	26.4
Jul-22	72.3	66.5	43.2	39.2	29.1	27.3
Aug-22	72.2	66.5	43.2	39.2	29.1	27.2
Sep-22	69.9	64.3	41.8	37.9	28.1	26.3
Oct-22	72.2	66.4	43.2	39.2	29.0	27.2
Nov-22	41.7	37.9	41.7	37.9	0.0	0.0
Dec-22	57.6	52.7	43.1	39.2	14.5	13.6
Jan-23	72.0	66.2	43.1	39.2	28.9	27.1
Feb-23	65.0	59.8	38.9	35.4	26.1	24.4
Mar-23	71.9	66.2	43.1	39.1	28.8	27.0
Apr-23	65.4	60.2	37.5	34.1	27.9	26.1
May-23	71.9	64.7	43.1	37.8	28.8	26.9
Jun-23	69.5	62.6	41.7	36.6	27.8	26.0
Jul-23	71.8	64.6	43.1	37.8	28.7	26.9
Aug-23	71.7	64.6	43.1	37.8	28.7	26.8
Sep-23	69.4	62.5	41.7	36.5	27.7	25.9
Oct-23	68.9	61.9	43.0	37.7	25.8	24.2
Nov-23	69.3	62.4	41.6	36.5	27.7	25.9
Dec-23	71.6	64.4	43.0	37.7	28.5	26.7
Jan-24	71.5	64.4	43.0	37.7	28.5	26.7
Feb-24	66.9	60.2	40.2	35.3	26.6	24.9
Mar-24	71.4	64.3	43.0	37.7	28.5	26.6
Apr-24	64.9	58.6	37.4	32.8	27.5	25.7
May-24	71.4	64.2	43.0	37.7	28.4	26.6
Jun-24	69.0	62.1	41.6	36.5	27.4	25.7
Jul-24	71.3	64.2	43.0	37.7	28.3	26.5
Aug-24	71.2	64.1	43.0	37.7	28.3	26.5
Sep-24	68.9	62.0	41.6	36.4	27.3	25.6
Oct-24	68.4	61.5	42.9	37.6	25.5	23.8
Nov-24	68.8	61.9	41.5	36.4	27.3	25.5
Dec-24	71.1	63.9	42.9	37.6	28.2	26.3
Jan-25	71.0	63.9	42.9	37.6	28.1	26.3
Feb-25	64.1	57.7	38.7	34.0	25.4	23.7
Mar-25	71.0	63.8	42.9	37.6	28.1	26.2
Apr-25	27.1	25.4	0.0	0.0	27.1	25.4
May-25	49.4	45.0	21.4	18.8	28.0	26.2
Jun-25	68.6	61.7	41.5	36.3	27.1	25.3
Jul-25	70.8	63.7	42.9	37.6	27.9	26.1
Aug-25	70.8	63.6	42.8	37.5	27.9	26.1
Sep-25	68.4	61.5	41.5	36.3	27.0	25.2
Oct-25	68.0	61.0	42.8	37.5	25.2	23.5
Nov-25	68.4	61.5	41.4	36.3	26.9	25.2
Dec-25	70.6	63.5	42.8	37.5	27.8	26.0
Jan-26	70.6	63.4	42.8	37.5	27.8	25.9
Feb-26	63.7	57.3	38.6	33.9	25.0	23.4
Mar-26	70.5	63.4	42.8	37.5	27.7	25.9
Apr-26	64.0	57.6	37.3	32.6	26.8	25.0
May-26	70.4	63.3	42.8	37.5	27.6	25.8
Jun-26	68.1	61.2	41.4	36.2	26.7	24.9
Jul-26	70.3	63.2	42.7	37.4	27.6	25.7
Aug-26	70.3	63.2	42.7	37.4	27.5	25.7
Sep-26	68.0	61.1	41.3	36.2	26.6	24.9
Oct-26	67.5	60.6	42.7	37.4	24.8	23.2
Nov-26	67.9	61.0	41.3	36.2	26.6	24.8
Dec-26	70.1	63.0	42.7	37.4	27.4	25.6

# 2021 Generation Capacity - 5 Year Forecast\*

Table 6A

Year	Plant #1		Plant #2		Total	
	Avg. Gross	Avg. Net	Avg. Gross	Avg. Net	Avg. Gross	Avg. Net
	Gen. MW	Gen. MW	Gen. MW	Gen. MW	Gen. MW	Gen. MW
Jan-22	59.7	55.5	41.0	38.4	100.7	94.0
Feb-22	60.3	56.0	41.7	39.2	102.0	95.2
Mar-22	61.1	55.5	41.4	38.8	102.5	94.3
Apr-22	61.1	55.5	41.3	38.7	102.5	94.3
May-22	61.1	55.5	41.3	38.7	102.4	94.2
Jun-22	61.1	55.5	41.2	38.6	102.3	94.1
Jul-22	61.1	55.5	41.2	38.6	102.3	94.1
Aug-22	61.1	55.5	41.1	38.5	102.2	94.0
Sep-22	61.1	55.5	41.1	38.5	102.1	94.0
Oct-22	61.1	55.5	41.0	38.4	102.1	93.9
Nov-22	61.0	55.4	0.0	0.0	61.0	55.4
Dec-22	61.0	55.4	40.9	38.4	102.0	93.8
Jan-23	61.0	55.4	40.9	38.3	101.9	93.7
Feb-23	61.0	55.4	40.8	38.3	101.8	93.7
Mar-23	61.0	55.4	40.8	38.2	101.8	93.6
Apr-23	61.0	55.4	40.8	38.2	101.7	93.5
May-23	61.0	53.5	40.7	38.1	101.7	91.6
Jun-23	60.9	53.4	40.7	38.1	101.6	91.5
Jul-23	60.9	53.4	40.6	38.0	101.6	91.5
Aug-23	60.9	53.4	40.6	38.0	101.5	91.4
Sep-23	60.9	53.4	40.5	37.9	101.4	91.3
Oct-23	60.9	53.4	40.5	37.9	101.4	91.3
Nov-23	60.9	53.4	40.4	37.8	101.3	91.2
Dec-23	60.9	53.4	40.4	37.8	101.3	91.2
Jan-24	60.9	53.4	40.3	37.8	101.2	91.1
Feb-24	60.8	53.3	40.3	37.7	101.1	91.1
Mar-24	60.8	53.3	40.3	37.7	101.1	91.0
Apr-24	60.8	53.3	40.2	37.6	101.0	90.9
May-24	60.8	53.3	40.2	37.6	101.0	90.9
Jun-24	60.8	53.3	40.1	37.5	100.9	90.8
Jul-24	60.8	53.3	40.1	37.5	100.9	90.8
Aug-24	60.8	53.3	40.0	37.4	100.8	90.7
Sep-24	60.8	53.3	40.0	37.4	100.7	90.6
Oct-24	60.7	53.2	39.9	37.3	100.7	90.6
Nov-24	60.7	53.2	39.9	37.3	100.6	90.5
Dec-24	60.7	53.2	39.8	37.3	100.6	90.5
Jan-25	60.7	53.2	39.8	37.2	100.5	90.4
Feb-25	60.7	53.2	39.8	37.2	100.4	90.4
Mar-25	60.7	53.2	39.7	37.1	100.4	90.3
Apr-25	0.0	0.0	39.7	37.1	39.7	37.1
May-25	60.7	53.2	39.6	37.0	100.3	90.2
Jun-25	60.6	53.1	39.6	37.0	100.2	90.1
Jul-25	60.6	53.1	39.5	36.9	100.2	90.1
Aug-25	60.6	53.1	39.5	36.9	100.1	90.0
Sep-25	60.6	53.1	39.4	36.9	100.1	90.0
Oct-25	60.6	53.1	39.4	36.8	100.0	89.9
Nov-25	60.6	53.1	39.4	36.8	99.9	89.8
Dec-25	60.6	53.1	39.3	36.7	99.9	89.8
Jan-26	60.6	53.1	39.3	36.7	99.8	89.7
Feb-26	60.5	53.0	39.2	36.6	99.8	89.7
Mar-26	60.5	53.0	39.2	36.6	99.7	89.6
Apr-26	60.5	53.0	39.1	36.6	99.7	89.6
May-26	60.5	53.0	39.1	36.5	99.6	89.5
Jun-26	60.5	53.0	39.1	36.5	99.6	89.5
Jul-26	60.5	53.0	39.0	36.4	99.5	89.4
Aug-26	60.5	53.0	39.0	36.4	99.4	89.4
Sep-26	60.5	53.0	38.9	36.3	99.4	89.3
Oct-26	60.4	52.9	38.9	36.3	99.3	89.2
Nov-26	60.4	52.9	38.8	36.3	99.3	89.2
Dec-26	60.4	52.9	38.8	36.2	99.2	89.1

\* Average generation levels plants are capable of achieving.



**TABLE 7**  
**2021 FORECAST OF GEOTHERMAL PRODUCTION AND**  
**INJECTION**

TIME STEP	DATE	STEAM	COND	WATER
		PROD. BLBS	INJ BLBS	INJ BLBS
1	2022	14.4	4.6	9.0
2	2023	14.3	4.6	15.1
3	2024	14.2	4.6	15.1
4	2025	14.1	4.5	15.0
5	2026	14.1	4.5	15.0
6	2027	14.0	4.5	15.0
7	2028	13.9	4.4	14.9
8	2029	13.8	4.4	14.9
9	2030	13.7	4.4	14.9
10	2031	13.6	4.4	14.9
11	2032	13.5	4.3	14.8
12	2033	13.5	4.3	14.8
13	2034	13.4	4.3	14.8
14	2035	13.3	4.3	14.8
15	2036	13.2	4.2	14.7
16	2037	13.1	4.2	14.7
17	2038	13.1	4.2	14.7
18	2039	13.0	4.2	14.7
19	2040	12.9	4.1	14.6
20	2041	12.9	4.1	14.6
21	2042	12.8	4.1	14.6
22	2043	12.7	4.1	14.6
23	2044	12.7	4.1	14.6
24	2045	12.6	4.0	14.5
25	2046	12.5	4.0	14.5

NOTES :

1. CUM. PRODUCTION AND INJECTION 1983-2021
 

710.6	Billion Lbs Steam
473.7	Billion Lbs Water
2. TOTAL WATER IS CONDENSATE + EFFLUENT + LAKE + POND
3. FUTURE STEAM PRODUCTION 2022-2046 =
 

335.4	Billion Lbs
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4. FUTURE WATER INJECTION 2022-2046 =
 

363.9	Billion Lbs
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# Commission Staff Report – *DRAFT*

**COMMISSION MEETING DATE:** May 26, 2022

**SUBJECT:** NCPA 2022 Wildfire Mitigation Plan Assessment Report and Revisions;  
Applicable to the following: All Northern California Power Agency (NCPA) Facilities

**AGENDA CATEGORY:** Discussion/Action

<b>FROM:</b>	Michael DeBortoli Acting Assistant General Manager	<b>METHOD OF SELECTION:</b> <i>Select a method.</i>
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Generation Services	

<b>IMPACTED MEMBERS:</b>		
All Members <input checked="" type="checkbox"/>	City of Lodi <input type="checkbox"/>	City of Shasta Lake <input type="checkbox"/>
Alameda Municipal Power <input type="checkbox"/>	City of Lompoc <input type="checkbox"/>	City of Ukiah <input type="checkbox"/>
San Francisco Bay Area Rapid Transit <input type="checkbox"/>	City of Palo Alto <input type="checkbox"/>	Plumas-Sierra REC <input type="checkbox"/>
City of Biggs <input type="checkbox"/>	City of Redding <input type="checkbox"/>	Port of Oakland <input type="checkbox"/>
City of Gridley <input type="checkbox"/>	City of Roseville <input type="checkbox"/>	Truckee Donner PUD <input type="checkbox"/>
City of Healdsburg <input type="checkbox"/>	City of Santa Clara <input type="checkbox"/>	Other <input type="checkbox"/>
<i>If other, please specify</i>		
<hr/>		
<hr/>		

## **RECOMMENDATION:**

Approve Resolution 22-XX for the NCPA 2022 Wildfire Mitigation Plan, with updated revisions based on the qualified independent evaluators recommendations.

## **BACKGROUND:**

Public Utilities Code, Division 4.1, Chapter 6 Wildfire Mitigation, Code 8387 requires electric utilities to assess the risk of catastrophic wildfire posed by a utility's overhead electrical lines and equipment. In response to this requirement, NCPA created its Wildfire Mitigation Plan, to reduce the risk of NCPA facilities igniting wildfire, including identifying preventative maintenance procedures and practices. The NCPA Wildfire Mitigation Plan was approved in the December 5, 2019 Commission Meeting.

NCPA contracted with Dudek, a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure, to complete the annual review and assess the comprehensiveness of the Wildfire Mitigation Plan. The independent evaluator issued a report (attached as an appendix to the Wildfire Mitigation Plan) stating that NCPA's Wildfire Mitigation Plan appropriately addressed all elements required under CPUC Section 8387 (b) (2). The independent evaluation and report were completed April 14 2022.

NCPA is now seeking Commission approval of the NCPA 2022 Wildfire Mitigation Plan, to include the recommendations provided by the qualified independent evaluator, revise the Wildfire Mitigation Plan from Version 1.2 to 1.3 to reflect recommendations, and post the Wildfire Mitigation Plan 1.3 to NCPA Website.

## **FISCAL IMPACT:**

Any expenses associated with the preventative maintenance procedures and practices included in the plan are already covered in previously approved Plant budgets. The plan also includes investigation of potential risk reduction measures that, if implemented, may require additional budget dollars. Those amounts are not known or established at this time.

## **ENVIRONMENTAL ANALYSIS:**

Work associated with this Project is categorically exempt under Class 1, 3, 4, and 11 Exemptions under CEQA guidelines 15301(b), 15303, 15304, and 15311 and is therefore categorically exempt from CEQA. Class 1 is the "existing facilities" exemption, which includes the repair, maintenance, or minor alteration of existing public structures, facilities, mechanical equipment, involving negligible or no expansion of use. Class 3 is installation of small new equipment and facilities in small structures; Class 4 is minor alterations in the condition of the land; and, Class 11 is construction or placement of minor structures accessory to existing facilities. All necessary Federal, State and County notifications will be made before commencing the work.

A Notice of Exemption was approved by the NCPA Commission on September 27, 2013, for this class of work and was filed in Lake and Sonoma Counties, and in Alpine, Calaveras, San Joaquin, and Tuolumne Counties.

**COMMITTEE REVIEW:**

Pending Committee review and approval.

AFTER FACILITIES APPROVAL: On May 4, 2022 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD  
General Manager

Attachments (2):

- Resolution 22-XX
- Northern California Power Agency Wildfire Mitigation Plan 1.3



## RESOLUTION 22-XX

### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE NCPA 2022 WILDFIRE MITIGATION PLAN ASSESSMENT REPORT AND REVISIONS

(reference Staff Report #XXX:22)

WHEREAS, Public Utilities Code, Division 4.1, Chapter 6 Wildfire Mitigation Code 8387 requires electric utilities to assess the risk of catastrophic wildfire posed by a utility's overhead electrical lines and equipment; and

WHEREAS, NCPA's Wildfire Mitigation Plan was approved by the NCPA Commission at its December 5, 2019 meeting (SR: 233:19; Reso: 19-100); and

WHEREAS, as required in Section 8 of the Wildfire Mitigation Plan, NCPA hired an outside consultant to review and assess the comprehensiveness of this Wildfire Mitigation Plan, including recommended updates to the plan; and

WHEREAS, work associated with this Project is categorically exempt under Class 1, 3, 4, and 11 Exemptions under CEQA guidelines 15301(b), 15303, 15304, and 15311 and is therefore categorically exempt from CEQA. Class 1 is the "existing facilities" exemption, which includes the repair, maintenance, or minor alteration of existing public structures, facilities, mechanical equipment, involving negligible or no expansion of use. Class 3 is installation of small new equipment and facilities in small structures; Class 4 is minor alterations in the condition of the land; and, Class 11 is construction or placement of minor structures accessory to existing facilities. All necessary Federal, State and County notifications will be made before commencing the work. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013, for this class of work and was filed in Lake and Sonoma Counties, and in Alpine, Calaveras, San Joaquin, and Tuolumne Counties; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency approves the NCPA 2022 Wildfire Mitigation Plan with updated revisions based on the qualified independent evaluators recommendations.

PASSED, ADOPTED and APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2022, by the following vote on roll call:

	<u>Vote</u>	<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	_____	_____	_____

\_\_\_\_\_  
DAVID HAGELE  
CHAIR

ATTEST:

\_\_\_\_\_  
CARY A. PADGETT  
ASSISTANT SECRETARY

# NORTHERN CALIFORNIA POWER AGENCY WILDFIRE MITIGATION PLAN 2022

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**VERSION 1.3**

## **VERSION HISTORY**

*Version 1.0 - NCPA Commission approved on December 5, 2019 per Resolution 19-100*

*Version 1.1 – NCPA Commission approved on May 29, 2020 per Resolution 20-43. This WMP includes the qualified Independent Evaluators (IE) report in Appendix 2.*

*Version 1.2 – NCPA Commission approved on May 27, 2021 per Resolution 21-56. This WMP includes the qualified Independent Evaluators (IE) report in Appendix 3*

*Version 1.3 – NCPA Commission approved on May XX, 2022 per Resolution 22-XX. This WMP includes the qualified Independent Evaluators (IE) report in Appendix 4.*

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DRAFT



## EXECUTIVE SUMMARY

Northern California Power Agency (NCPA) has prepared the following Wildfire Mitigation Plan (WMP) in accordance with California Public Utilities Commission (CPUC) regulation 8387 (SB 901). NCPA is a Joint Powers Agency, which owns and operates several electrical generation facilities to support its members' generation needs.

The objective of this WMP is to reduce the risk of wildfires that could be ignited or propagated by NCPA electrical equipment or facilities in high fire threat locations. The plan describes the range of activities that NCPA is taking to mitigate the threat of power line-ignited wildfires, including its current programs, policies, and procedures as well as future plans to decrease risk and improve resiliency. The plan has prioritized the prevention of elements that create a wildfire event: 1) fuel, or geographic conditions represented by the California Department of Forestry and Fire Protection (CAL FIRE) and the CPUC risk maps, and 2) ignition, represented by facilities subject to creating a fire. The facility types of highest interest are open wire power lines (transmission and distribution) that are near heavy vegetation or forest.

NCPA has no retail customers. As such, this report focuses exclusively on NCPA electrical facilities with minimal discussion regarding customer communication typical of other utility WMPs.

## 1. OVERVIEW

### 1.A. POLICY STATEMENT

The Northern California Power Agency (NCPA), a California Joint Action Agency, has an overarching goal to provide safe, reliable, and economic electric service to its public power members and associate members. To meet this goal, NCPA constructs, maintains, and operates its equipment in a manner that minimizes the risk of wildfire ignition and propagation caused by NCPA-owned and -operated electric utility equipment (generation, generation tie-lines, and distribution).

### 1.B. PURPOSE OF THE WILDFIRE MITIGATION PLAN

The objective of this Wildfire Mitigation Plan (WMP) is to reduce the risk of wildfires that could be ignited or propagated by NCPA electrical equipment or facilities in high fire threat locations.

NCPA is a Joint Powers Agency, which owns and operates electrical generation facilities. The scope of this plan applies to the Geothermal Facility and the Hydro Facility that are located in two different Geographical areas. These two facilities contain electrical equipment in high fire threat locations. The Geothermal Plant is located around the Geyser territory in Lake County and the Hydro Electric Facility is located in the North Fork Stanislaus River watershed.

The plan describes the range of activities that NCPA is taking to mitigate the threat of power line-ignited wildfires, including its current programs, policies, and procedures as well as future plans to decrease risk and improve resiliency. This plan is subject to direct supervision by the NCPA Commission and is implemented by the NCPA General Manager. This plan complies with the requirements of Public Utilities Code section 8387 (origin SB-901) for publicly owned electric utilities to prepare a wildfire mitigation plan by January 1, 2020, and to review and update it annually thereafter.

Historically, NCPA has continuously improved its practices to minimize wildfire risks. This includes:

- A transmission line vegetation management program that is compliant with North American Electric Reliability Corporation Standard FAC-003 and CAL FIRE regulations
- Compliance with CAL FIRE and California Public Utilities Commission regulations and guidance for overhead distribution and transmission lines
- CAL FIRE emergency response plans
- Power management/dispatch response procedures
- Periodic equipment inspections and safe work practices
- Workforce training

This WMP is in response to the requirements of California Senate Bill 901 (SB-901). It supersedes a prior plan drafted and approved prior to SB-901, specifically pursuant to Public Utilities Code, Division 4.1, Chapter 6 Wildfire Mitigation (effective January 1, 2017).

In 2019, NCPA initiated the development of this current WMP. NCPA hired POWER Engineers (POWER) to evaluate NCPA's electrical facilities, processes, and documentation based on the

design, configuration, operations, maintenance, and condition of NCPA facilities in relation to their potential to initiate a wildfire event. The evaluation included consideration of NCPA system descriptions, record design/construction documents, typical facilities layouts, basic fire protection system features, data sheets, inspection practices and procedures, baseline vegetation conditions, potential climate change effects, vegetation management practices, fire threat and hazard maps, and other documentation.

The investigation also included limited on-site surveys for better understanding of the general design, configuration, and condition of NCPA equipment and the surrounding environment for identification of associated risks.

POWER then prepared a wildfire mitigation report with prioritized recommendations for potential improvement. The analysis and recommendations of that report formed the basis for development of site-specific implementation plans with action items scheduled on the basis of risk and cost. These plans provide guidance for NCPA to identify, correct, remediate, or employ new or better methods to be prepared for, reduce, and eliminate the risk of wildfires in and around NCPA facilities. In 2019, this WMP was presented at the NCPA Commission Meeting, a public meeting, and is posted on NCPA's public website domain.

In 2020, per Section 8 of this WMP, NCPA hired an outside consultant, Dudek, to review, assess the comprehensiveness, and provide recommendations to this plan. Subsequently, NCPA elected to modify its Draft WMP that incorporated Dudek's recommended modifications. The Revised WMP (version 1.1) was provided to Dudek on April 29, 2020. Dudek reviewed the Revised WMP and determined that it appropriately addressed all elements required under CPUC Section 8387(b)(2). In 2020, this WMP was presented at the NCPA commission meeting, a public meeting, and is posted on NCPA's public website domain.

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### 1.B.1. COORDINATION WITH LOCAL AGENCIES

NCPA's local coordination efforts related to wildfire mitigation include regular meetings for its Emergency Action Plan process. For example, the NCPA Hydroelectric facility hosts an annual face-to-face meeting with local emergency management agencies including: the U.S. Forest Service; CAL FIRE; sheriff departments for Calaveras, Tuolumne, and Alpine Counties; California Highway Patrol; California Department of Parks and Recreation (Calaveras Big Trees State Park); and others. In addition, a separate annual meeting is held with the U.S. Forest Service, since many NCPA Hydroelectric facilities are located on U.S. Forest Service lands. Wildfire mitigation is one of the agenda items that is always explicitly discussed.

The NCPA Hydroelectric and Geothermal facilities also coordinate vegetation management activities with CAL FIRE and routinely utilize CAL FIRE (in cooperation with California Department of Corrections Conservation Fire Camp labor) for vegetation management and wildfire mitigation around the facilities. Additionally, NCPA Geothermal facility staff meet annually with Pacific Gas and Electric (PG&E), Calpine (operator of other geothermal facilities at the Geysers), CAL FIRE, the Bureau of Land Management, and Lake County Sanitation District.

Board (WSAB) developed template for review of POU WMPs

<b>Utility Name:</b>	<b>Northern California Power Agency</b>
<b>Size:</b>	<1.5 square miles (39 miles x 200 feet ground clearance)
<b>Assets:</b>	Yes - Generation, Yes - Transmission (Only a generator tie line), Yes - Distribution (Only for NCPA Utilities')
<b>Number of Customers:</b>	Zero Customers. Wholesale provider to PGE Electrical Grid.
<b>Customer Classes:</b>	Zero Customers. Wholesale provider to PGE Electrical Grid.
<b>Location Topography:</b>	No - Urban, Yes - Wildland Urban Interface, Yes - Rural/Forest, No - Rural/Desert, No - Rural/Agricultural
<b>Percent Territory in CPUC High Fire Threat Maps:</b>	Yes - Includes Maps, 46% in Tier 2, 26% in Tier 3
<b>CAL Fire Frap Map Fire Threat Zones:</b>	Yes - Includes Maps, 28.5% Extreme, 11% Very High, 10% in High
<b>Existing Grid Hardening Measures</b>	Yes - Describes hardened & non-hardened infrastructure
<b>Utility Fire Threat Risk Level:</b>	No - Hi, No - Low, Yes - Mixed
<b>Impact by another utility's PSPS?</b>	Yes - Impacted by PGE PSPS
<b>Mitigates impact of another utility's PSPS?</b>	No - NCPA is a wholesaler of power feeding into PGE electrical grid.
<b>Expects to initiate its own PSPS?</b>	No - NCPA is a wholesaler of power feeding into PGE electrical grid.
<b>Prevailing wind directions and speeds by season?</b>	No - In Maps, Yes - Includes description in Section 4.A.

## 1.C. ORGANIZATION OF THE WILDFIRE MITIGATION PLAN

This WMP includes the following elements:

- Objectives of the plan
- Roles and responsibilities for carrying out the plan
- Identification of key wildfire risks and risk drivers
- Description of wildfire prevention, mitigation, and response strategies and programs
- Metrics for evaluating the performance of the plan and identifying areas for improvement
- Review and validation of the plan
- Timelines

## 2. GOALS

### 2.A. MINIMIZING SOURCES OF IGNITION

The primary goal of this WMP is to minimize the probability that NCPA's transmission and distribution system may be the origin or contributing source for the ignition of a fire. NCPA's priorities include facility improvement projects (i.e. see section 5A) as well as continued and improved inspection, maintenance, and vegetation management practices. NCPA has evaluated and will continue to evaluate and implement prudent and cost-effective improvements (i.e. see section 5A) to its physical assets, operations, and training that can help to meet this objective.

### 2.B. RESILIENCY OF THE ELECTRIC GRID

The secondary goal of this WMP is to improve the resiliency of the electric grid. As part of the development of this plan, NCPA has assessed and will continue to assess new industry practices and technologies that will reduce the likelihood of an interruption (frequency) in service and improve the restoration (duration) of service. For example, section 5.A includes a 230kv Insulation improvement project that increased the electrical transmission resiliency for the NCPA Hydro Electric Facility.

### 2.C. IDENTIFYING UNNECESSARY OR INEFFECTIVE ACTIONS

The final goal for this WMP is to measure the effectiveness of specific wildfire mitigation strategies. Where a particular action, program component, or protocol is determined to be unnecessary or ineffective, NCPA will assess whether a modification or replacement is merited. This plan will also help determine if more cost-effective measures would produce the same or improved results.

NCPA's current and planned wildfire risk mitigation activities will be formally reviewed annually according to this WMP regarding the effectiveness of ongoing practices, investigation of new technologies, and changing climate and ground conditions to continually prioritize the highest value activities for fire risk mitigation.

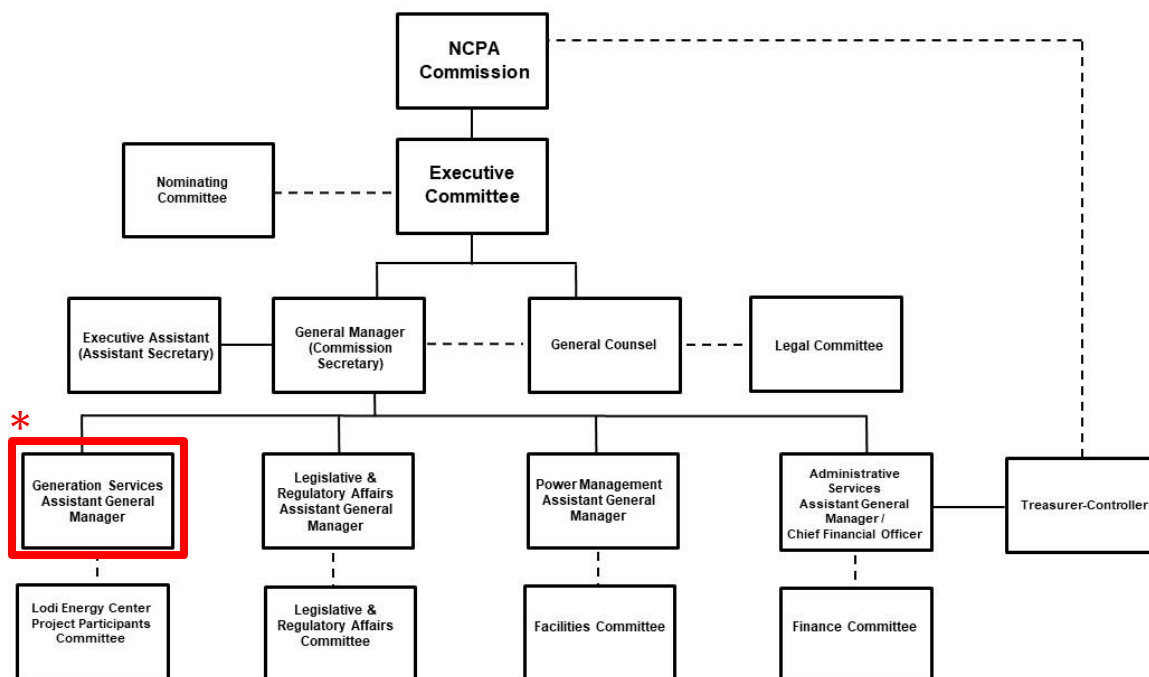


### 3. ROLES AND RESPONSIBILITIES

#### 3.A. UTILITY GOVERNANCE STRUCTURE

NCPA is governed by a Commission that maintains several committees, including an Executive Committee, a Nominating Committee, a Legal Committee, a Legislative & Regulatory Affairs Committee, a Facilities Committee, and a Finance Committee. The Executive Committee includes a Chair, Vice Chair, and seven at-large representatives.

Among its approximately 160 employees, NCPA has an internal management team, including a General Manager; an Assistant General Manager for Legislative & Regulatory Affairs; an Assistant General Manager for Power Management; an Assistant General Manager for Generation Services; an Assistant General Manager for Finance & Administrative Services; a General Counsel; and an Executive Assistant & Assistant Secretary to the Commission.



\*The red box above indicates the responsible department of the North Fork Stanislaus Hydroelectric Project (Hydro) and Geyser's Geothermal (Geo) Projects. NCPA Plant managers are responsible for executing the WMP and serve under the Generation Services Assistant General Manager.

### 3.B. WILDFIRE PREVENTION ORGANIZATIONAL RESPONSIBILITIES

NCPA is governed by a Commission comprised of one representative for each of its public power utility members. The Commission is responsible for the general management of the affairs, property, and business of the Agency. Under the direction of the General Manager, the staff of the Agency is responsible for providing various administrative, operating and planning services for the Agency. This establishes all funding and is applied to all wildfire funding mechanisms in this plan (i.e., 3.B., 3.C., 5.A., 5.F, 5.G, 5.H).

NCPA's organizational responsibilities with respect to wildfire mitigation correspond to its two main facility locations that reside in high fire threat areas: The North Fork Stanislaus Hydroelectric Project (Hydro) and Geyser's Geothermal (Geo) Projects. Hydro and Geothermal plant managers have responsibility for operations at each respective generating facility. The plant supervisors at each location are responsible for the workforce training and execution of all policies and procedures related to fire risks, equipment design, maintenance, inspection, vegetation management, and operations for all activities at their facilities.

Revisions to the NCPA Wildfire Mitigation Plan are presented to the NCPA Facilities Committee for review and comment, before being routed for final approval to the NCPA Commission. The NCPA Wildfire Mitigation Plan is available for public review on the NCPA website (Policy → Reports → Wildfire Mitigation Plan). Achieved versions of NCPA's Wildfire Mitigation Plan are also available in this location.

The NCPA Dispatch Center in Roseville, under the direction of the Assistant General Manager for Power Management, has jurisdictional and operational responsibilities for the generator tie lines, including procedures for Operating Instructions and Emergency Assistance (NCPA-PM-108) and Emergency Operating Guidelines for the Collierville-Bellota 230 kV Lines (NCPA-PM-201).

Under the direction of the Assistant General Manager for Generation Services, the plant managers are responsible for implementation and execution of the WMP with respect to their facilities (see notes in Section 3A, Governance Structure Diagram). In coordination with the NCPA Dispatch Center, the plant managers coordinate activities with internal and external entities necessary to operate and react to wildfire activity.

Additionally, all NCPA employees are responsible for:

- Performing good housekeeping practices
- Maintaining their work areas free of potentially flammable materials
- Participating in fire prevention and suppression training as required

### 3.C. WILDFIRE RESPONSE, COMMUNICATION, AND RECOVERY

The objective of crisis management is to provide direction for rapid performance of hazard assessment, prioritization, notification, and applicable actions. NCPA has evaluated potential hazards in the work environment and surrounding areas and has worked with local authorities to develop emergency response plans for each facility that address mitigation of hazards and

effective response. The goals are to protect personnel, the public, the environment, and the assets of NCPA.

NCPA utilizes a number of resources to communicate emergency or hazardous conditions to personnel (including non-NCPA personnel) at geothermal plants, powerhouses, and associated facilities and locations. These resources include two-way radio communications equipment, cell phones, satellite phones, telephone landlines, email, and the Internet.

The agency maintains separate emergency response plans, due to different geographic locations, for Geothermal and Hydro generation projects. The plans provide guidance and emergency resources for: fire events, unplanned, sudden or non-sudden hazardous materials/waste releases, air emissions exceedances, natural or manmade disasters (earthquakes, floods, bomb threats, or suspected terrorist or sabotage events, etc.), or emergency hazards.

Any accident or incident requiring emergency response and support from external agencies shall be reported to the appropriate NCPA plant supervisor. The type and severity of the event(s) shall determine the appropriate response and course of action.

The NCPA Dispatch Center is the main point of contact for PG&E on any public safety power shutoff (PSPS) notification affecting any of NCPA's or members' generation and member loads. NCPA does not have a defined service territory however the NCPA Dispatch Center's responsibility is to pass along relevant PG&E PSPS notification to affected members based on phone messages or emails received from PG&E through its Everbridge mass notification system. The NCPA Dispatch Center will also follow up on the Everbridge PSPS notifications with information on any planned power shutoff events based on PG&E's PSPS websites or direct PG&E communication where current and real-time information is available.

NCPA provides wholesale power to City's and utilities, typically known as NCPA members, only via the utility grid. Since NCPA does not have retail customers, no customer notification protocols are in place.

### 3.D. COORDINATION WITH WATER UTILITIES/DEPARTMENT

The power from the NCPA generation facilities is delivered to the California Independent System Operator (CAISO) grid. Unlike a typical public utility, NCPA does not have a defined service territory nor does NCPA deliver or provide power directly to any water utilities. However, the NCPA Hydroelectric Project does transport and deliver water owned by two (2) water utilities through infrastructure (dams and tunnels) operated by NCPA. One of those entities, the Calaveras County Water District (CCWD) owns the hydro facilities that NCPA operates to deliver this water. The Utica Water and Power Authority (UWPA) also receives some of their water through the same facilities. It is important to note that neither curtailment of NCPA generation facilities nor de-energization of the NCPA powerlines has any impact on the abilities of CCWD or UWPA to obtain water. NCPA routinely communicates and coordinates with CCWD and UWPA, and both entities are included on communication flow charts for the relevant emergency plans, such as the Emergency Response Plans.

### 3.E. COORDINATION WITH COMMUNICATION INFRASTRUCTURE PROVIDERS

NCPA does not provide power directly to any communication infrastructure providers and therefore does not routinely coordinate or communicate with communication infrastructure providers related to wildfire mitigation or power outages.

### 3.F. MUTUAL AID AGREEMENTS

NCPA members are uniquely and ideally qualified to assist with the emergency replacement of poles and wires that are necessary to return electric distribution and communication facilities to normal operating condition. However, mutual aid agreements have also long been utilized by publicly owned utilities during times of need. These agreements are usually formed and exercised among neighboring utilities as proximity allows for quick response and less travel expenses. Additionally, mutual aid agreements that have a broader geographical reach, allowing for the provision of aid from utilities across the state or nation, can provide better protection from large regional events that may result in neighboring utilities having to respond to the same emergency events. NCPA is a member of the California Utilities Emergency Association, which plays a key role in ensuring communications between utilities during emergencies and maintains a mutual aid agreement for its members. As a member of the American Public Power Association (APPA), NCPA and its members can also authorize APPA mutual aid agreements.

## 4. WILDFIRE RISKS AND DRIVERS

NCPA electrical infrastructure consists of the following facilities that are in Moderate to Very High CAL FIRE Hazard Severity Zones (2009) and/or Tier 2/3 CPUC Fire Threat Zones (2018). See Appendix 1.

NCPA Project	NCPA Facility	Cal Fire Hazard Severity Zone (2009)			CPUC Fire Threat Zone (2018)	
		Moderate	High	Very High	Tier 2	Tier 3
North Fork Stanislaus Hydroelectric Project (Hydro)	Collierville Powerhouse 11523 Camp 9 Rd., Murphys, CA	-	-	X	X	-
	New Spicer Meadows Powerhouse 38.393735, -	-	-	X	-	-
	McKay's Point Diversion Dam	-	-	X	-	X
	McKay's 17kV Service Line	-	-	600 ft.	-	600 ft.
	Beaver Creek 38°14'02.94" N 120°16'43.50" W	-	-	X	-	X
	Collierville-Bellota 230kV Gen-Tie Line	10 miles	11 miles	15 miles	25 miles	-
Geysers Geothermal (Geo)	Plant 1, Middletown, CA	-	-	X	-	X
	Plant 2, Middletown, CA	-	-	X	-	X
	230 kV Gen-Tie Line	-	-	2.5 miles	-	2.5 miles
	Effluent Pump System and 21 kV Service Line	-	-	3 miles	-	3 miles
	Steam Field and Delivery (includes	-	-	8 miles	-	8 miles

NCPA is also a 6.13% co-tenant of the Castle Rock Junction-Lakeville 230 kV Transmission Line in the Geysers area. This line is located in a Tier 3 CPUC Fire Threat Zone and is operated and maintained by PG&E; it is included within the scope of the PG&E Wildfire Mitigation Plan.

There are no new wildfire risks associated with design and construction of new assets. NCPA is currently Operating and Maintaining original generating facilities. No new construction is planned in the immediate future.

### 4.A. RISKS ASSOCIATED WITH TOPOGRAPHIC AND CLIMATOLOGICAL FACTORS

Multiple wildfire risk drivers have been identified from recent wildfires. These include drought conditions, vegetation type and density, weather conditions (high winds and climate change), and local topographic features (terrain). Vegetation and climate conditions are discussed in section 5.

Primary risk drivers are weather and climate. Weather and climate include extended drought periods, changing weather patterns, and high winds. These weather and climate factors affect vegetation conditions, including vegetation health, type and density. Stressed vegetation is prone to disease, insect infestations, and increased mortality rates.

Physical conditions, such as terrain and high winds, affect fire risks. These factors influence fire movement and direction, and control migration rates. Generally, fires move upslope without strong winds, while high winds (i.e. Diablo winds) rapidly drive fires primarily in the same direction as the wind. Topographic features, such as steep canyons, create localized conditions that affect fire movement and rate of speed.

Several of the risk drivers are interrelated:

- **Extended drought:** Extended drought periods result in multiple stress factors for vegetation: dry trees and brush, higher susceptibility to disease and insects, easier ignition, faster burn rate, etc.
- **Vegetation type:** Fire risk is partially dependent upon vegetation type. Some vegetation burns quickly (e.g. dry grass), while other types burn hotter (e.g. hardwood trees such as oak). Each vegetation type presents its own unique challenges for vegetation management and control.
- **Vegetation density:** Vegetation density directly affects wildfire hazards. Dense vegetation generally represents the highest hazard level, while sparse vegetation density is substantially lower risk. Vegetation density is often associated with weather conditions, local micro-climates, and vegetation type.
- **Weather:** Weather conditions include precipitation, humidity, storms, and winds. Each factor affects wildfire risks. Lightning strikes associated with thunderstorms or dry lightning are a natural cause of wildfires.
- **High winds:** High winds drive wildfires. They also down trees and sometimes down power lines. In turn, downed power lines are potential ignition sources and the documented cause of some major wildfires in California.
- **Prevailing Winds:** NCPA monitors prevailing winds directions and speeds, differentiated by season, along with average weather conditions by season using NCPA real-time observations noting disturbing local weather. Live data is used with the fire maps located in Appendix 1. PG&E's Weather Awareness website is a resource for real-time conditions: [https://www.pge.com/en\\_US/safety/emergency-preparedness/natural-disaster/wildfires/psps-weather-map.page?WT.mc\\_id=Vanity\\_weather](https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/psps-weather-map.page?WT.mc_id=Vanity_weather). This information is used in communication and aids to analyze wildfire situations. In addition, prevailing wind patterns and their effect on transmission conductors due to cyclic loading are taken into account during annual Transmission asset inspections conducted in accordance with NCPA's NERC FAC-003 compliance procedure GM-305.
- **Terrain:** Topographic features and terrain affect wildfire migration and area-specific risks. Fires generally burn uphill, especially within steep canyons. Wind-driven upslope and up-canyon fires spread rapidly and represent increased fire hazards.
- **Changing weather patterns (climate change):** Climate change alters vegetation habitat, causing species migration. It may result in increased or decreased precipitation, precipitation type changes (e.g. more rain than snow), higher maximum temperatures, extended heatwaves, more frequent drought. In turn, these changes may cause increased tree mortality, increased stressed vegetation, greater susceptibility to disease or insect infestation.
- **Communities at risk:** Communities located in high-hazard zones are most at risk of wildfires. Communities at Risk are designated places and are unchanging. The risk level



around these communities may change from year to year based on overall weather conditions, as well as during the year, changing from the wet season through the dry summer and fall.

- **Fire Frequency:** Over history, the frequency of wildfires affects wildfire risks. Vegetation changes are directly associated with wildfires. In addition to consuming existing vegetation, the new landscape is open to different vegetation types, both native and invasive. With native vegetation, a natural cycle occurs with different species dominating the environment and evolving over an extended timeframe. Since different vegetation types represent varied fire hazards, the risk level also evolves over time in conjunction with vegetation changes.

Wildfires have occurred in the general region of NCPA's hydro and geothermal facilities, however NCPA facilities have not been associated with any ignition source. The 2017 Tubbs and 2019 Kincadee Fires affected areas nearby, and immediately adjacent to the geothermal facilities. The 2015 Valley Fire destroyed much of the 21kV Service Line for the Effluent Pump System. Risks specific to NCPA's generation facilities are tied to both residual fuel load (snags) from previous fires and potential soil instability caused by previous damage to area vegetation. These hazards are addressed by enhanced inspection techniques described in Section 5.F

#### 4.B. RISKS RELATED TO DESIGN, OPERATION, AND MAINTENANCE

Risks and risk drivers related to design, construction, operation and maintenance that could create fire ignition sources are listed below. The methodology for identifying, monitoring, analyzing, planning, evaluating safety-wide risks are defined in NCPA's Preventative Strategies and Programs in Section 5.A. These risks include:

- **Equipment/structure/facilities:** Inherent risk of facilities, primarily open wire transmission and distribution ignition events
- **Object to wire or equipment contact:** Trees, birds, balloons, downed conductors, lightning strikes, or high wind events resulting in contact of equipment
- **Wire to wire contact:** Wires touching one another, and dropping molten metal to the ground
- **Vehicle operations:** Maintenance, inspection or vegetation clearing crew vehicles causing fires (i.e. catalytic converters contacting dry brush)
- **Vegetation clearing:** Chain saws and other mechanized equipment use
- **Hot Work:** Welding or other activity that could cause ignition in the area of work

#### 4.C. CHANGES TO CPUC FIRE THREAT MAP

A key concern for NCPA is the historical risk of wildfires in the vicinity of the agency's facilities, particularly within potential fire hazard zones. Both CAL FIRE and the CPUC have developed maps to identify potential fire hazard zones, published in 2007 and 2018, respectively. NCPA has reviewed current CAL FIRE hazard severity zone and CPUC fire-threat maps with respect to agency facilities, as shown in Appendix 1. These maps have not been adjusted since the noted publication dates nor have any local agencies imposed any expansions to the maps. There has

been no new information, or identified changes to the environment, to warrant an expansion of the high-fire threat district.

CPUC Fire Threat Maps are static, based on data available at the time they were created. As noted below, wildfire risks evolve over time in response to the risk drivers listed above. In section 5, annual tree mortality data illustrates a migration of tree mortality, with the risk area expanding from year to year. NCPA will review available data and adjust fire threat hazard zones when applicable to NCPA facilities.

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#### 4.C.1. MAP COMPARISONS AND UPDATES

Currently published wildfire hazard maps from CAL FIRE and the CPUC show different boundaries for the risk areas delineated. They also use different terminology for hazard zones. Several factors could account for these boundary differences between agency maps: publication dates, study methodology, vegetation changes over time, recent wildfires, and potential climate change effects. The zones delineated by the CAL FIRE and CPUC maps are discussed below.

## CAL FIRE CALIFORNIA FIRE HAZARD SEVERITY ZONE MAP

CAL FIRE generated and published Fire Hazard Severity Zone Maps for the entire state of California in 2007, including separate maps for each county. These maps delineate three hazard zone levels: moderate, high, and very high. The figures in Appendix 1 illustrate these fire hazard severity zones. There has been no new information or changes to the environment identified to warrant an expansion of the high-fire threat district.

## CPUC FIRE-THREAT MAPS

The CPUC has developed and published Fire-Threat Maps. These 2018 maps include Tier 2 (elevated fire risk) and Tier 3 (extreme fire risk) zones. Additionally, the CPUC uses a Tier 1 (zero to moderate fire risk) category, which includes a High Hazard Zone (HHZ) designation based on a 2018 U.S. Forest Service-CAL FIRE joint map of tree mortality HHZs. This Tier 1 information addresses the hazard areas with large expanses of dead trees and associated fire risks.

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### 4.C.2. FIRE ZONE REVIEW PROCESS

The existing fire zone review process, set forth by regulatory agencies such as CAL FIRE and CPUC, is an important tool for reducing wildfire risks and hazards. Preparing and executing adequate vegetation management plans is a critical component of this process. The current fire zone process incorporates lessons learned from past major wildfire events, with each new occurrence adding knowledge and forming the basis for improving the process.

Since differences exist between currently published CAL FIRE and CPUC wildfire hazard zone maps, NCPA uses the most conservative approach to vegetation management and asset protection, assuming the highest risk factor from the combined datasets.

## 5. WILDFIRE PREVENTATIVE STRATEGIES

### 5.A. PREVENTATIVE STRATEGIES AND PROGRAMS

NCPA's strategies to reduce wildfire risk include continuous evaluation and improvement of its programs and procedures: including NCPA's (1) facility maintenance program, (2) emergency operating procedures, (3) vegetation management programs, and (4) asset documentation programs. These programs include all details such as goals, objective or percentage, monitor ongoing work, accomplishments, internal and external audits, and detailed reports. There are no constraints such as budgets, availability of equipment, knowledge to effectively deploy, or qualified personnel to install and monitor effectively.

**(1) Facility Maintenance Program:** NCPA has a robust preventive maintenance program to maintain the safe and reliable operation of its transmission and distribution lines. Given the growing risk of wildfires, opportunities for improvement have been identified and will be explored as part of each facility's improvement plan. Additionally, NCPA utilizes risk factors as identified in Section 4.B. during improvement plan evaluations. Improvements, such as listed below, may be implemented based on workable solutions and relative priorities:

- **The Collierville-Bellota (CB) 230 kV Gen-Tie Line:** In 2020 NCPA made improvements on its longest transmission line. More than half of the line is within a Tier 2 fire threat zone. NCPA prioritized the safe and reliable operation of the line. The line is over 30 years old, and a thorough review of the line and its attendant facilities was recently undertaken. A list of improvements included upgrading insulators, hardware, and conductor damping. These major improvements were completed in 2020. This project was considered a major capital improvement and prioritized for wildfire prevention. Avian deterrents and anti-nesting cones were also added in 2020.
- **McKay's Point 17 kV Overhead Line:** This three-span distribution line is in a Tier 3 fire threat zone. This short line is maintained and is monitored consistently. Due to its location and danger tree threat NCPA is seeking a contractor and appropriate hardening improvements. Original improvements were targeted in 2021 but due to contractor issues NCPA is now estimating a 2023 execution.
- **Geothermal 230 kV Gen-Tie Transmission Line:** This nine-span line connects with PG&E's 230 kV system. The line is characterized by long dead-ended spans and thick vegetation, which has been cleared to a 300-foot width across the right of way following CAL FIRE recommendations. The line is consistently inspected and maintained.
- **Geothermal Effluent Pump System 21 kV Line:** This 6-mile distribution line is in a Tier 3 fire threat zone. This line was largely rebuilt following damage caused by the 2017 Valley Fire. The wood pole line has construction framing typical to distribution construction. In addition to typical maintenance and monitoring of the pole line and down guy structural and foundational health, NCPA works with Cal Fire and Calpine to coordinate vegetation removal and clearance work, in excess of the requirements for rural distribution circuits.

**(2) Emergency Operating Procedures:** NCPA uses emergency operating procedures to safely react to wildfire fire events and help guide employees. In addition to annual evaluation of

procedure training effectiveness, NCPA improves its operational awareness and ability to respond to fire events by ensuring that Hydro and Geothermal plant personnel performing work adjacent to NCPA line facilities are able to continuously communicate with plant operations personnel for coordination of emergency response to wildfires.

**(3) Vegetation Management Program:** NCPA has developed and implemented a Transmission Vegetation Management Program (TVMP) to establish the vegetation maintenance requirements for each facility to achieve reliability of its generation interconnection system. The NCPA document, Generation Services Common Procedure GS-305: Transmission Vegetation Management Program, defines NCPA procedures for vegetation management. The full description of this program is described in Section 5.E.

**(4) Asset documentation:** NCPA has current facility documentation including geographically referenced facility locations (appendix 1) and current facility drawings, materials lists, and design criteria. This documentation has been coordinated with adjacent asset owners (PG&E and Calpine) to ensure completeness of maintenance actions and track design features (lightning arrestors) that minimize risks of the lines causing an ignition.

NCPA directly participated in the development of the CPUC's Fire-Threat Map,<sup>1</sup> which designates a High Fire-Threat District. In the map development process, NCPA served as a territory lead, and worked with utility staff and local fire and government officials to identify the areas of NCPA's service territory that are at an elevated or extreme risk of power line-ignited wildfire. NCPA has incorporated the High Fire-Threat District into its construction, inspection, maintenance, repair, and clearance practices, where applicable.

A key concern for NCPA is the historical risk of wildfires in the vicinity of the agency's facilities, particularly within potential fire hazard zones. Both CAL FIRE and the CPUC have developed maps to identify potential fire hazard zones, published in 2007 and 2018, respectively. NCPA has reviewed current CAL FIRE hazard severity zone and CPUC fire-threat maps with respect to agency facilities, as shown in Appendix 1.

NCPA reviewed facilities and determined the hazard zones where these facilities are located. These facilities and their locations are described in section 4.

The CPUC defines a High Fire-Threat District consisting of three areas:

- Tier 1 High Hazard Zones on the U.S. Forest Service-California Department of Forestry and Fire Protection (CAL FIRE) joint map of Tree Mortality High Hazard Zones
- Tier 2 of the CPUC Fire-Threat Map where there is an elevated risk for utility-associated wildfires
- Tier 3 of the CPUC Fire-Threat Map where there is an extreme risk for utility-associated wildfires

NCPA facilities in relation to CPUC and CAL FIRE threat maps are shown in Appendix 1 of this report.

## 5.B. POTENTIAL CLIMATE CHANGE EFFECTS

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<sup>1</sup> Adopted by CPUC Decision 17-12-024.

Climate change has affected vegetation in many ways. Droughts are longer and more severe. Large storm events are more common and intense. Summers are hotter and may include more thunderstorms. These climate change factors affect vegetation and the associated wildfire risks:

- Vegetation adapts, with plant migration into different areas
- Vegetation dries out during droughts, presenting increased fire danger
- Stressed vegetation is more susceptible to insect infestations, damaging trees, or accelerating mortality
- Thunderstorms present lightning strike risks along with strong wind events

Extended periods of intense rainfall also typically increase landslide risks. In turn, landslides could damage or topple structures, limit access, or create safety hazards by damaging roads, or cause localized tree mortality by severing root systems. Note that heavy rainfall is not the only landslide trigger mechanism, but it is the one most closely associated with climate change.

### 5.C. POTENTIAL CLIMATE CHANGE RISK MANAGEMENT IMPACTS

Climate change has affected the risks associated with wildfires, especially in fire hazard zones. Frequent, severe and larger wildfires, and the related impacts to the POU lines, equipment and operations result in impacts to vegetation and increased wildfire risks. Some of the specific climate change impacts that affect wildfire risks include:

- Tree and underbrush growth rates
- Vegetation type changes
- Vegetation migration from existing habitats
- Stress and disease contributing to higher tree mortality

As potential impacts shift over time, fire hazard management practices will evolve and adapt to changing risk management requirements.

### 5.D. TREE MORTALITY

It is estimated that over 100 million trees in California died from drought-related stress between 2012 and 2017. The extended drought period left millions of acres of forestland highly susceptible to insect attacks. Drought stress is aggravated in forests with too many trees competing for limited water resources.

In 2015, California established the Tree Mortality Task Force (<https://frap.fire.ca.gov/frap-projects/tree-mortality/>). This task force was established to identify and map tree mortality areas with the greatest potential for causing harm to people and property. The High Hazard Zones were prioritized for tree removal.

Dead, dying, and diseased trees represent potential wildfire risks for NCPA. Trees adjacent to power line right-of-way represent a hazard due to falling branches or potential toppling. This threat increases substantially with tall snags or trees with dead tops. Dead or highly stressed trees are also an easily ignitable fuel source. They ignite quicker and generally burn faster than



healthy trees. NCPA's internal Transmission Vegetation Management Program specifies tree and snag clearances.

## 5.E. VEGETATION MANAGEMENT

NCPA has developed and implemented a Transmission Vegetation Management Program (TVMP) to establish the vegetation maintenance requirements for each facility to achieve reliability of its generation interconnection system. The NCPA document, Generation Services Common Procedure GS-305: Transmission Vegetation Management Program, defines NCPA procedures for vegetation management. NCPA's TVMP is the plan for all types of vegetation associated with utility infrastructure, from the ground to the sky, which includes vegetation above and below electrical lines.

NCPA meets or exceeds the minimum industry standard vegetation management practices. For transmission-level facilities, NCPA complies with NERC FAC-003-4. For both transmission and distribution-level facilities, NCPA meets: (1) Public Resources Code section 4292; (2) Public Resources Code section 4293; (3) General Order 95 Rule 35; and (4) General Order 95 Appendix E Guidelines to Rule 35.

The TVMP enhances reliability by preventing outages from vegetation located within or adjacent to the power line right-of-way, by maintaining required clearances between power lines and vegetation within or adjacent to the right-of-way, by reporting vegetation-related outages of the system to WECC, and by documenting the process for an annual vegetation work plan. The program satisfies the requirements for vegetation management specified in NERC FAC-003-4, which requires a Generator Owner to have documented maintenance strategies, procedures, processes, or specifications to prevent the encroachment of vegetation into the Minimum Vegetation Clearance Distance of applicable lines as specified in requirement R3.

NCPA uses a combination of its own staff (manager, supervisor or competent designee) and the retention of qualified consultants (such as scientific experts in ecology, fire ecology, fire behavior, geology, and meteorology) with experience in line design, line construction, NERC Standards compliance, and vegetation management to develop and maintain the TVMP.

The TVMP specifies technical requirements for staff and contractors to comply with or verify compliance with Cal/OSHA standards and NCPA Electrical Safety Procedure GS-103 ensures Cal/Osha and Minimum Approach Distances (MAD).

The objectives of the TVMP are to:

- Adhere to the Power Line Fire Prevention Field Guide published by CAL FIRE in November 2008 and used by California utilities for the care and maintenance of trees, shrubs, and other woody plants when pruning vegetation near electric facilities.
- Maintain defined clearance distances between the generation interconnection facilities and all trees, brush, and other vegetation that could grow too close to electrical facilities including conductors, poles, and guy wires. Since the clearances specified in the Power Line Fire Prevention Field Guide are more stringent than the MVCD described in FAC-003-4, NCPA adheres to the CAL FIRE field guide.

- Where appropriate and necessary, develop site-specific, environmentally sensitive, cost-effective and socially responsible solutions to vegetation control near the NCPA generation interconnection facilities. Document the process for the annual vegetation work plan for applicable power lines.
- Maintain public and worker safety, maintain compliance with NERC standards and other regulatory and legal requirements, provide reliable electric service that allows for operational flexibility, and promote environmental stewardship and habitat enhancement.
- Potential improvements to its programs include increasing the frequency and scope of aerial lidar surveys on its transmission and distribution facilities, and a continued emphasis on identification and timely removal of danger and hazard trees that threaten overhead transmission and distribution lines. NCPA's asset management system allows potential improvement to be evaluated as observations and comments are made when work orders for maintenance items are executed.

## 5.F. INSPECTIONS

NCPA performs annual inspections of its transmission and distribution facilities in accordance with General Order 95 and General Order 165. The following additional inspections have been performed on the CB 230 kV line:

- Lidar vegetation flights
- Corona scans of insulators
- Infrared "hot-spot" inspections of conductor, conductor splices, and dead-end hardware.
- In addition to its annual ground-based inspection, NCPA may augment inspections with aerial drone and/or helicopter surveys.

These inspections are documented and issued by NCPA's computerized maintenance management system (CMMS), and records of those inspections are maintained.

Strategic improvements to the inspection program include increasing the frequency and scope of inspections, increasing the use of drone-based visual inspections, consideration of new technology, improving the inspection methodology approach, and consideration of fire threat zones in the inspection programs. NCPA's asset management system also allows these improvements to be evaluated as observations and comments are made when work orders for maintenance items are executed.

The TVMP also establishes requirements for the type and schedule of right-of-way vegetation inspections. Specific hazards addressed in the TVMP include identification of encroachment into the Clearance area (section 6.3.7), and additional inspection activities to identify deadfall and brush in the ROW that could provide fuel for wildfire spread (section 6.3.9). The TVMP also provides explicit direction to treat emergent conditions of a potential hazard as an immediate mitigation priority without any intentional delay (section 6.4.4), including addressing extent of condition.

Section 4.B. of this WMP outlines the unique risks NCPA inspects for.

## 5.G. FIRE PREVENTION, SAFETY, EMERGENCY RESPONSE TRAINING

NCPA has implemented work rules and complementary training programs for its workforce to help reduce the likelihood of the ignition of wildfires.

Trainings for employees to cover fire hazards and NCPA's Fire Prevention Plan consists of fire extinguisher training, fire prevention training, hazardous materials handling training, and emergency response training. These trainings are conducted by an outside vendor and/or NCPA supervisors or environmental health and safety specialists.

NCPA employees also receive training on emergency response plans when the employee is assigned initially to the job, when the plan changes, and when the employee's responsibilities or designated actions under the plans change.

Each facility manager is responsible for conducting site-specific training to ensure that the purpose and function of NCPA safety procedures are understood by employees and that knowledge and skills required for safe operation are acquired by employees. Refresher training is performed and documented on an annual basis, and retraining is conducted when:

- An annual audit reveals there are deviations from or inadequacies in the employee's knowledge of the procedure or changes in the regulations
- A new or revised control method of a system or piece of equipment

The following procedures provide additional guidance for employee training specific to the areas described in these NCPA documents:

- Generation Services Common Procedure GS-101: Lock Out Tag Out Try Procedure
- Generation Services Common Procedure GS-103: Electrical Safety Procedure
- Generation Services Common Procedure GS-107: Proper Handling of Hazardous Waste
- Generation Services Common Procedure GS-111: Hot Work Procedure
- Generation Services Common Procedure GS-115: Welding Safety Procedure
- Generation Services Common Procedure GS-126: Fire Protection and Prevention Plan
- Power Management Common Procedure PM-108: Operating Instructions and Emergency Assistance
- Power Management Common Procedure PM-201: Emergency Operating Guidelines, Collierville Power House Bellota-Collierville 230kV Lines

## 5.H. RECLOSING POLICY

NCPA does not own or use automatic reclosers on its 230 kV within the scope defined in Section 4 of this WMP. This is a typical approach for utility operations in rugged and remote terrain, for both personnel and fire hazard safety reasons. In the event of a planned or emergency line trip, close coordination with NCPA generation services and dispatch as well as with PG&E's grid control center is mandatory, and lines are only re-energized after extensive line patrol visual confirmation. If the lines are tripped due to a forecasted or imminent wildfire or if a wildfire is believed to be caused by downed lines, close coordination with CAL FIRE's onsite representative

and control center are required before NCPA's generation services attempts to energize the line.

## 5.1.DE-ENERGIZATION

In the event of active fire situations in the vicinity of the CB 230 kV transmission line, NCPA may be directed by CAL FIRE to de-energize the line's two circuits for firefighter and/or aircraft protection. The on-call Hydro Supervisor will coordinate Hydro personnel response to any wildland fires in and around the CB 230 kV transmission lines and contact on-site CAL FIRE personnel if necessary. If CAL FIRE requests de-energizing both of the 230 kV lines, the NCPA Dispatch Center will shut down both Collierville units before de-energizing these lines. NCPA is currently able to de-energize both circuits of the CB 230 kV line via SCADA and other procedures within 20 minutes.

The Collierville 480 VAC station service is designed to automatically transfer to the offsite PG&E 17 kV source. If the 17 kV source is not available, the 480 VAC standby diesel generator will start and provide station service power. The NCPA Dispatch Center will notify Generation Services Hydro staff of any issues with the 17 kV source or if the diesel generator is in operation. The NCPA Dispatch Center will notify the CAISO and work with PG&E's Grid Control Center to de-energize both 230 kV lines.

NCPA's Geothermal plant manager relies on PG&E to determine de-energization. NCPA's Hydro plant manager has the authority to preemptively shut off power due to fire-threat conditions; however, this option will only be used in extraordinary circumstances. NCPA will make a case-by-case decision to shut off power.

NCPA also maintains transmission line trip procedures to significantly reduce fire risk, including requiring patrols prior to restoring transmission lines. Requiring patrols during high fire risk scenarios is typical and recommended of California utilities.

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### 5.J.1. IMPACTS TO PUBLIC SAFETY

NCPA has no retail customers, and de-energizing agency facilities will not directly affect retail customers, who will be notified by their specific utility providers of PSPS.

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### 5.J.2. CUSTOMER NOTIFICATION PROTOCOLS

NCPA provides wholesale power to Cities and utilities, typically known as NCPA members, only via the utility grid. Since NCPA does not have retail customers, no customer notification protocols are in place. However, NCPA is the primary point of contact between PG&E PSPS and its member utilities. Formal procedures are currently in place, NCPA-PM-501, to notify NCPA member utilities of de-energization activities.

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## 7. RESTORATION OF SERVICE

After a de-energization event, NCPA will restore service in coordination with PG&E's restoration efforts. NCPA will follow PM-201 and Geothermal Facilities Maintenance Procedure (GEO-646) which specifically address restoration for Hydro and Geothermal facilities respectively. These procedures contain the steps that must be taken to restore such as inspecting, repairing, testing, and finally restoring.

### 7.A. METRICS AND ASSUMPTIONS FOR MEASURING PLAN PERFORMANCE

NCPA will track two metrics to measure the performance of this Wildfire Mitigation Plan. Metrics are evaluated yearly: (1) number of fire ignitions; and (2) number of NCPA wires down.

#### METRIC 1: FIRE IGNITIONS

NCPA will track fire ignitions in their territory as follows:

- Self-ignited or human-caused
- An NCPA facility failure was associated with the fire
- An NCPA electrical facility wire-to-wire contact was associated with the fire
- The ignition was a result of an extreme weather event

**2020 Metric Summary: GEO – 0 ignitions, Hydro – 0 ignitions**

**2021 Metric Summary: GEO – 0 ignitions, Hydro – 0 ignitions**

#### METRIC 2: WIRES DOWN

The second metric is the number of NCPA distribution and transmission wires downed. A wire down event includes any instance where an electric transmission or primary distribution conductor falls to the ground or on to a foreign object. NCPA will divide the wires down metric between wires down inside and outside of High Fire Threat Districts. All wires down events will be documented.

**2020 Metric Summary: GEO – 0 Wire Down, Hydro – 0 Wire Down**

**2021 Metric Summary: GEO – 0 Wire Down, Hydro – 0 Wire Down**

#### METRIC 3: FALL IN HAZARD TREES IGNITIONS

NCPA has added a metric that measures an element that could lead to a wildfire ignition:



- Fall in trees (trees of height sufficient to represent a contact hazard to the Distribution Line if destabilized due to soil instability at the tree base) without adequate clearance to the ROW in areas previously affected by fire.

**2022 Metric Summary: GEO – 10 Locations, 0 Fall Ins; Hydro – 2 Locations, 0 Fall Ins.**

## 7.B. IMPACT OF METRICS ON PLAN

NCPA anticipates that tracking these metrics will help with identification of which lines are most susceptible to unexpected outages, time-of-year risks, as well as fire threat district risks. From this, NCPA will identify lines that are disproportionately impacted and will then evaluate potential improvements to the plan.

**2020,2021and 2022 WMP Impact Due to Metrics – The metrics above show zero incidents and indicate success. No WMP changes due to metrics.**

## 7.C. MONITORING AND AUDITING THE PLAN

This WMP is presented to the NCPA Commission on an annual basis along with metrics and a summary of updates. Additionally, a qualified independent evaluator will present a report on this plan to the NCPA Commission. See section 8.

## 7.D. IDENTIFYING AND CORRECTING DEFICIENCIES IN THE PLAN

NCPA may correct deficiencies and implement plan improvements as needed. Some of these activities are defined in Section 2C. See section 1B, 4th paragraph identifying this WMP is in response to SB901 and superseding previous versions. Improvements will be documented in the annual report to the NCPA Commission.

## 7.E. MONITORING THE EFFECTIVENESS OF INSPECTIONS

Line inspections for NCPA fall into two categories:

1. Line patrol and evaluation of line facilities on a structure-by-structure basis. This is either ground or aerial (drone or helicopter) based.
2. Vegetation monitoring and evaluation, either ground-based on a structure-by-structure and span-by-span basis or by lidar aerial methods.

Measuring the effectiveness of these inspections can be performed by review by independent professionals of the inspection documentation and analysis in the case of the lidar vegetation inspection. A second method would include ride-alongs with inspection personnel to review their methodology and reporting. Lastly, an independent review of similar facilities can be performed and compared and reviewed with inspection personnel. NCPA currently conducts ride-alongs with both Cal-Fire staff and internal NCPA staff. Additional objectives are stated in Section 2C above.

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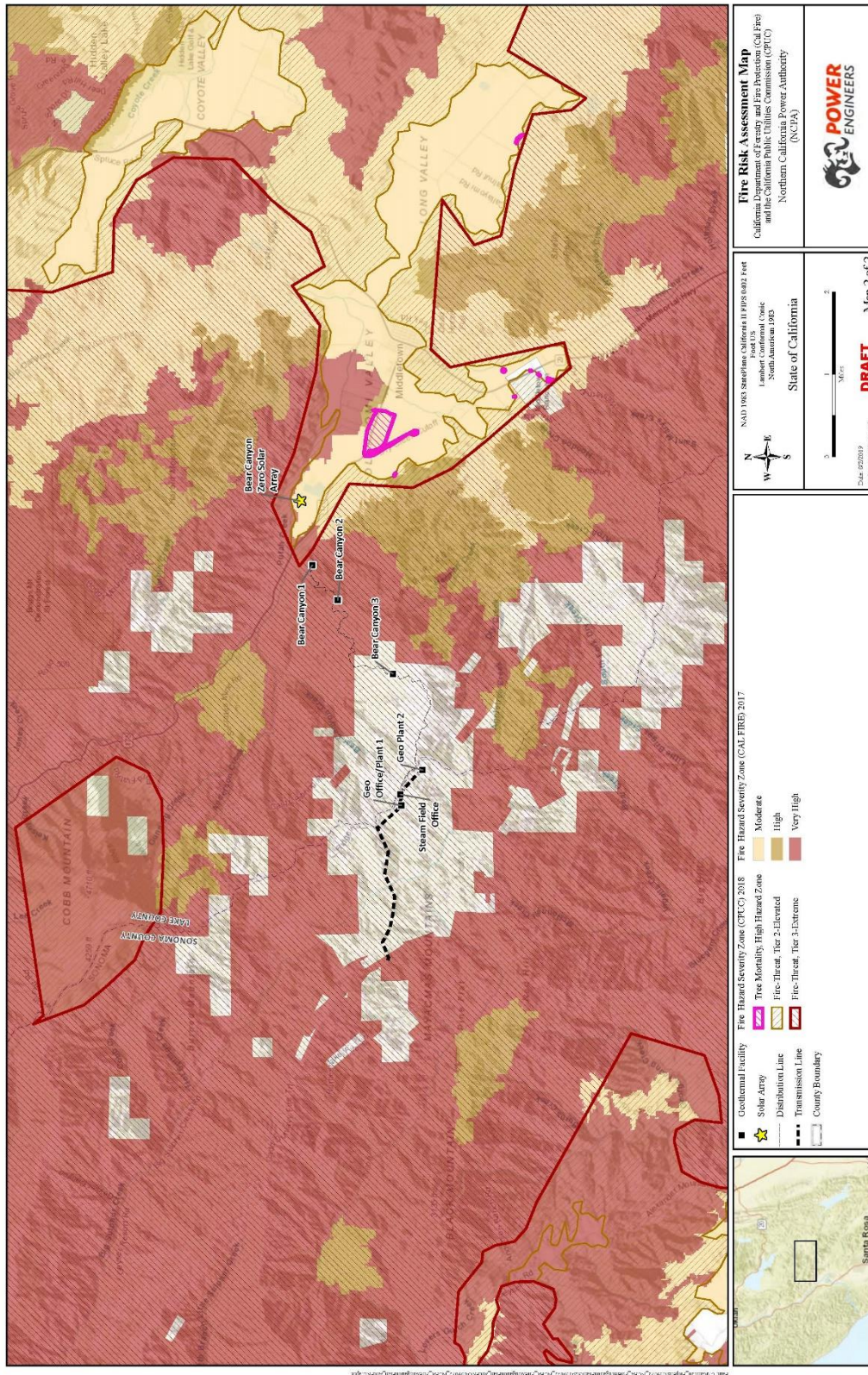
## 8. INDEPENDENT AUDITOR

In 2019, NCPA anticipated that the CPUC would provide a list of qualified independent evaluators. In lieu of such a list, NCPA drew from a list it compiled following a Request for Qualifications issued in June 2019. The selection was based on competitive bid.

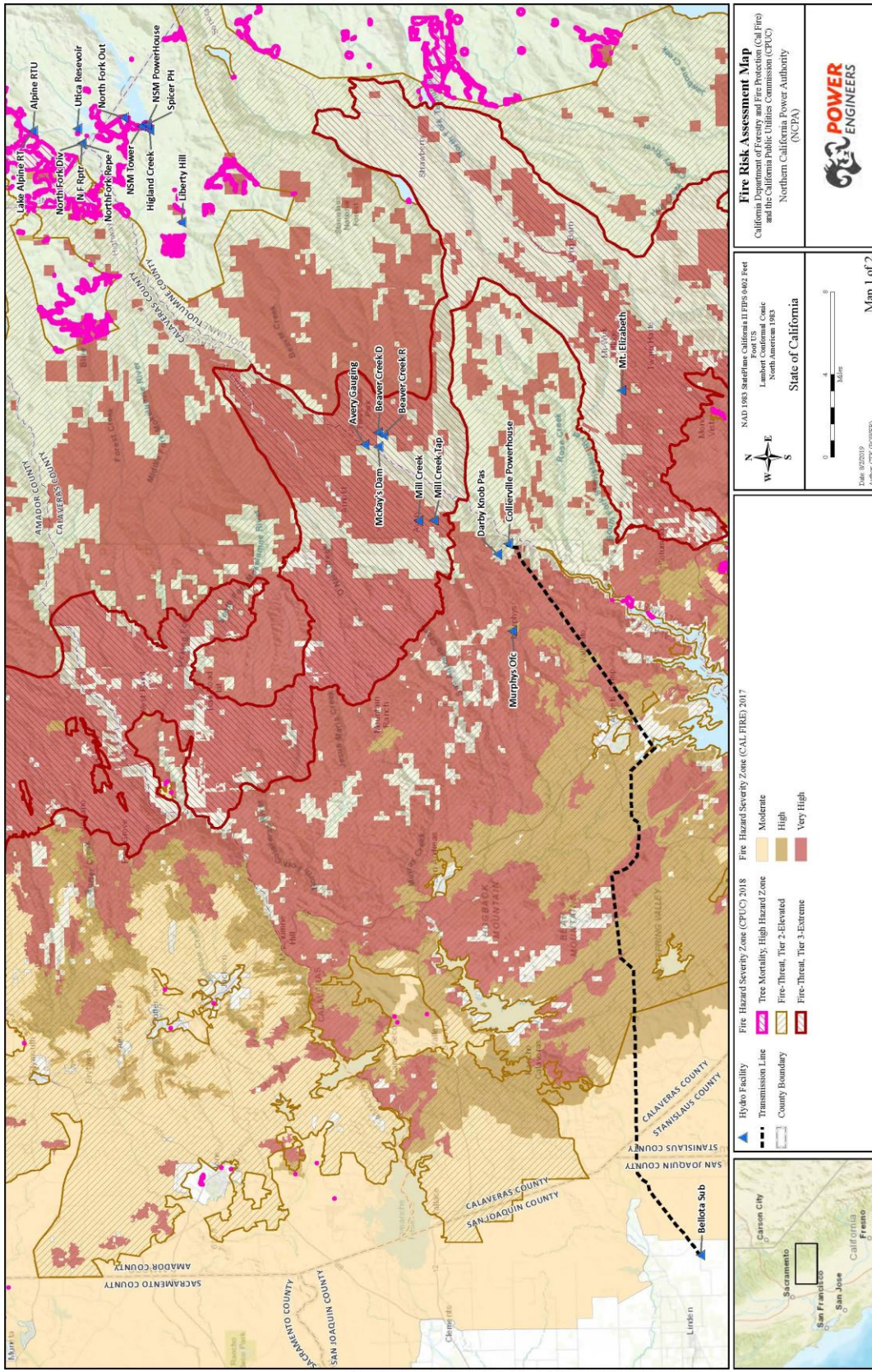
In 2020, NCPA competitively bid and contracted with a qualified independent evaluator, Dudek, with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of this WMP. The independent evaluator issued a report (that is attached as an appendix to this report) and posted to the NCPA website. The independent evaluation and report were completed April 30<sup>th</sup> 2020.

In 2021, NCPA competitively bid and contracted with a qualified independent evaluator, Dudek, to review this WMP using the recommendations provided by the Wildfire Safety Advisory Board's (WSAB) "Guidance Advisory Opinion for the 2021 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Cooperatives" published and approved December 9, 2020. Per the WSAB, "The guidance document should be viewed as offering an efficient way to meet the WMP requirements in Public Utilities Code Section 8387(b)(2), not as adding to the statutory requirements."

## APPENDIX 1 – FIRE RISK ASSESSMENT MAPS







## APPENDIX 2 – INDEPENDENT EVALUATOR REPORT 2020

853 LINCOLN WAY, SUITE 208  
AUBURN, CALIFORNIA 95603  
T 530.887.8500 F 530.887.1250

April 30, 2020

12108.02

Mr. Jeremy Lawson  
Northern California Power Agency  
651 Commerce Drive  
Roseville, CA 95678

**Subject:** *Evaluation of Northern California Power Agency Wildfire Prevention and Mitigation Plan*

Dear Mr. Lawson:

Dudek conducted an evaluation of the City of Northern California Power Agency (NCPA) Wildfire Mitigation Plan (WMP), as required under California Public Utilities Code (CPUC) Section 8387(b). CPUC Section 8387(b), as modified by Senate Bill (SB) 901, and the Administrative Law Judge's Ruling issued on January 17, 2019 in CPUC Docket No. R.18-10-007 (ALJ Ruling), applies to publicly-owned electric utilities and requires preparation of a Wildfire Mitigation Plan before January 1, 2020. CPUC Section 8387(c) requires that an independent evaluator review and assess the comprehensiveness of a publicly-owned utility's WMP and issue a summary report.

Dudek, as an independent plan evaluator, conducted an initial review of NCPA's Draft WMP (version 1.0). On April 21, 2020, Dudek provided a summary matrix with recommendations for Draft WMP modifications. The focus of the evaluation was to determine whether the Draft WMP addressed all required elements under CPUC Section 8387(b)(2) (included in Attachment A). The following summarizes the recommended clarifications/modifications identified during the initial review of the Draft WMP (version 1.0), by required element:

- 8387(b)(A): Provide clarification and detail regarding plan implementation responsibility.
- 8387(b)(E): Identify previous plan metrics, as available.
- 8387(b)(L): Provide details regarding risk drivers, risk impacts, and how NCPA will identify, monitor, analyze, plan/evaluate and respond to risks.
- 8387(b)(N)(i): Clarify monitoring efforts associated with WMP implementation and clearly identify performance monitoring details in the plan. Clarify plan auditing and review procedures.
- 8387(b)(N)(ii): Provide clarification and detail regarding plan implementation, review, and plan deficiency correction responsibility.
- 8387(b)(N)(iii): Clarify line/equipment inspection responsibility, timeframes, work plan approach, and target inspection goals, and performance metrics.

Subsequently, NCPA elected to modify its Draft WMP that incorporated Dudek's recommended modifications. The Revised WMP (version 1.1) was provided to Dudek on April 29, 2020. Dudek reviewed the Revised WMP and determined that it appropriately addressed all elements required under CPUC Section 8387(b)(2).

**DUDEK**

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12108.02  
April 2020



Mr. Jeremy Lawson

Subject: Evaluation of Northern California Power Agency Wildfire Prevention Mitigation Plan

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Should you have any questions or require additional information, please do not hesitate to contact me at (530) 863-4650.

Sincerely,



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Scott Eckardt, RPF  
Project Manager

Att.: A. Required WMP Elements under PUC Section 8387(b)  
cc: Michael Huff, Dudek  
Jason Neuman, Dudek

**DUDEK**

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12108.02  
April 2020

**Required WMP Elements under PUC Section 8387(b)**

PUC 8387(b)(2) Section	Description
<b>A</b>	An accounting of the responsibilities of the persons responsible for executing the plan.
<b>B</b>	The objectives of the wildfire mitigation plan.
<b>C</b>	Description of the preventative strategies and programs to be adopted by the publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.
<b>D</b>	A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions made that underlie the use of those metrics.
<b>E</b>	A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.
<b>F</b>	Protocols for disabling reclosers and de-energizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.
<b>G</b>	Appropriate and feasible procedures for notifying a customer who may be impacted by the de-energizing of electric lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.
<b>H</b>	Plans for vegetation management.
<b>I</b>	Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.
<b>J</b>	A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following:
<b>J(i)</b>	Risks and risk drivers associated with design, construction, operations, and maintenance of the local publicly owned electric utility or electrical cooperative's equipment and facilities.
<b>J(ii)</b>	Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned utility's or electrical cooperative's service territory.
<b>K</b>	Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is currently identified in a commission fire threat map, and identification of where the commission should expand the high fire threat district based on new information or changes to the environment.
<b>L</b>	A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk.
<b>M</b>	A statement of how the local publicly owned electric utility will restore service after a wildfire.
<b>N</b>	A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following:
<b>N(i)</b>	Monitor and audit the wildfire mitigation plan.
<b>N(ii)</b>	Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.
<b>N(iii)</b>	Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, and other applicable statutes, or commission rules.

## APPENDIX 3 – INDEPENDENT EVALUATOR REPORT 2021

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T 530.887.8500 F 530.887.1250

May 3, 2021

Mr. Jeremy Lawson  
Northern California Power Agency  
651 Commerce Drive  
Roseville, CA 95678

*Subject: Independent Evaluation Report of Northern California Power Agency's Wildfire Mitigation Plan Ver. 1.2*

### I. INTRODUCTION

Northern California Power Agency (NCPA) contracted with Dudek to engage in an independent evaluation of its Wildfire Mitigation Plan (WMP). This independent evaluation report (Report) describes the technical review and evaluation of the WMP prepared by Dudek, performed in April 2021 and completed on April 26, 2021.

Dudek conducted an evaluation of NCPA's WMP, as required under California Public Utilities Code (PUC) §8387(b), PUC §8387(b), as modified by Senate Bill (SB) 901, and the Administrative Law Judge's Ruling issued on January 17, 2019 in California Public Utilities Commission (CPUC) Docket No. R.18-10-007 (ALJ Ruling), applies to local publicly owned electric utilities and required preparation of a WMP before January 1, 2020, and revising/updating the WMP in 2020 and annually thereafter.

The WMP requirements are codified in PUC §8387(b)(2) for local publicly owned electric utilities (POUs). PUC §8387(c) requires that an independent evaluator review and assess the comprehensiveness of a POU's WMP and issue a summary report.

Dudek conducted an initial review of NCPA's WMP (version 1.2) and provided recommendations for clarifications/modifications on April 8, 2021. The focus of the evaluation was to determine whether the WMP included all elements required under PUC §8387(b)(2) (listed in Attachment A). The following summarizes the recommended clarifications/modifications identified during the initial review, by required element. Required elements not identified below were determined to satisfactorily meet code requirements in the WMP.

- 8387(b)(2)(A): While the organizational structure, responsible department and responsible position are identified, it is not clear what the responsible position's responsibilities are for executing the WMP.
- 8387(b)(2)(C): Add description of programs. Reference is made to the line maintenance program. No definitive description is provided for the proposed programs.
- 8387(b)(2)(E): Include discussion of application of previous metrics. No reference is included regarding the impacts on the WMP from past metrics.
- 8387(b)(2)(F): Enhance section to clarify role as wholesaler vs. retailer. Reclosers are not employed. Impacts to Public Safety is addressed; any impacts would be addressed by providers of Public Safety Power Shutoffs (PSPS). Any de-energization is coordinated with CAL FIRE and PG&E.

**DUDEK**

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May 2021

- 8387(b)(2)(G): Enhance section to clarify role as wholesaler vs. retailer. As a wholesale provider NCPA has no retail customers; any impacts would be addressed by providers of PSPS.
- 8387(b)(2)(J): Add list of risks and risk drivers related to design, construction, operation and maintenance; they currently are not addressed.
- 8387(b)(2)(K): Not addressed. Rather than referring solely to the High Fire-Threat District, include description of the local geography, any specific areas of concern and identification of any changes to be made.
- 8387(b)(2)(M): Needs clarification and details. Statement is very limited with no details, only that restoration will occur in coordination with PG&E and General Order (GO)-646 procedures. The section should be enhanced to include details on PG&Es restoration efforts and the GO-646 procedure.
- 8387(b)(2)(N): The section should be enhanced to include details on how the monitoring will occur throughout the year. It is not clear how deficiencies are identified. Clarification is needed whether or not the proposed effectiveness inspection methods are actually taking place, and if so, by whom.

Following updates to all of the above, the WMP was found to meet all the requirements of PUC §8387(b)(2).

In addition, though not required to do so, NCPA requested Dudek to conduct an evaluation of the WMP for compliance with the Wildfire Safety Advisory Board 2020 WMP guidance recommendations. Following updates, the WMP was found to meet all the recommendations of the Guidance Advisory Opinion for 2021 WMPs (See Attachment B for Compliance Matrix).

## II. WILDFIRE MITIGATION PLAN REQUIREMENTS

### A. Senate Bill 901

Per Senate Bill (SB) 901, all Publicly Owned Utilities (POUs) are required to adopt a Wildfire Mitigation Plan (WMP), which shall be reviewed by an independent third-party evaluator. SB 901 requires the governing board to determine whether any portion of the geographical area where the utility's overhead electrical lines and equipment are located has a significant risk of catastrophic wildfire resulting from those electrical lines and equipment. The bill directs electrical utilities to annually prepare WMPs that include several mitigation and response elements in each utility's strategies, protocols, and programs. Each electric utility is to prepare and adopt a comprehensive WMP before January 1, 2020. The requirements for POUs are presented in PUC §8387. In addition, the WMP shall be reviewed by an approved, independent, third-party evaluator to review and assess the comprehensiveness of, and the POU's compliance with, this Plan.

### B. AB 1054 & AB 111

Per Assembly Bill (AB) 1054, POUs must annually submit a WMP to the California Wildfire Safety Advisory Board, which will review the WMP and provide recommendations on mitigating wildfire risk. AB 1054 contains similar WMP requirements to SB 901 but allows WMPs of a three-year, rather than one-year duration.

AB 111 establishes the Wildfire Safety Division within the Public Utilities Commission.



### C. Northern California Power Agency WMP Requirements

PUC §8387(b)(2) lists the statutory requirements for WMPs. These are the specific elements that the independent evaluator must review in order to make its determination for this report. The specific elements that must be addressed in NCPA's WMP are included in Table A (see Attachment A) and are summarized here for reference.

- The responsibilities of persons responsible for executing the plan.
- The objectives of the wildfire mitigation plan.
- The preventive strategies and programs to be adopted to minimize the risk of its electrical lines and equipment causing catastrophic wildfires.
- The metrics to use to evaluate the wildfire mitigation plan's performance.
- How the application of previously identified metrics has informed the wildfire mitigation plan.
- Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts.
- Procedures for notifying a customer who may be impacted by the deenergizing of electrical lines.
- Plans for vegetation management.
- Plans for inspections of the electrical infrastructure.
- Description of all wildfire risks, and drivers for those risks, throughout the service territory, including design, construction, operation, and maintenance of equipment and facilities, and topographic and climatological risk factors.
- Identification of any geographic area in the service territory that is a higher wildfire threat than is identified in a commission fire threat map.
- Identification of enterprise-wide safety risk and wildfire-related risks.
- How the service will be restored after a wildfire.
- The processes and procedures used to monitor and audit the implementation of the wildfire mitigation plan, identify any deficiencies, and the effectiveness of electrical line and equipment inspections.

### III. DESCRIPTION OF NORTHERN CALIFORNIA POWER AGENCY

NCPA is a Joint Powers Agency, which owns and operates electrical generation facilities. NCPA is governed by a Commission comprised of one representative for each of its public power utility members.

The WMP applies to a geothermal facility and a hydro facility that are located in two different geographical areas. These two facilities contain electrical equipment in high fire threat locations. The geothermal plant is located around the Geyser territory in Lake County and the Hydro Electric Facility is located in the North Fork Stanislaus River watershed (Calaveras County).

NCPA electrical infrastructure consists of facilities that are in Moderate to Very High Fire Hazard Severity Zones (CAL FIRE) and/or Tier 2/3 CPUC Fire Threat Zones.

NCPA has taken appropriate actions to help prevent and respond to the increasing risk of devastating wildfires by following all applicable design, construction, operation, and maintenance requirements that reduce safety risks associated with its electric system.

#### IV. INDEPENDENT EVALUATION

##### A. Independent Evaluator Requirement

PUC §8387 requires each POU to “contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan.” Additionally, the independent evaluator’s assessment of the comprehensiveness of the POU’s WMP must be issued in a report that is both posted to the POU’s website and presented at a public meeting of the POU’s governing board.

##### B. Dudek’s Qualifications

According to PUC §8387(c), the qualified independent evaluator that performs the assessment of NCPA’s WMP must have “experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan.” NCPA has determined that Dudek is the independent evaluator who adequately understands the local conditions and fire risks of the service area.

##### C. Evaluation Methodology

Dudek evaluated the comprehensiveness the NCPA WMP on the following measures:

- Statutory Compliance: Dudek ensured that each required element specified in PUC §8387 is either addressed in NCPA’s WMP or that NCPA has sufficiently described why that element is not applicable due to NCPA’s size, geography, system or other relevant factor.
- Industry Comparison: Dudek is familiar with existing industry practices and has reviewed the local POU WMPs previously filed with the CPUC. Dudek has compared NCPA’s WMP against existing practices and any comparable actions planned by the POUs.

##### D. Metrics

The NCPA WMP uses the following metrics to measure performance of its wildfire mitigation measures: (1) number of fire ignitions, and (2) wires down events. Dudek has determined that these are appropriate metrics for this WMP. Dudek will continue to monitor the metrics selected in the CPUC’s current Wildfire Mitigation Plan rulemaking for utilities (per R.18-10-007) and determine if any additional metrics are applicable to POUs and should be incorporated into future WMPs.

#### V. EVALUATION OF THE NORTHERN CALIFORNIA POWER AGENCY WILDFIRE MITIGATION PLAN

##### A. Minimizing Wildfire Risks

PUC §8387(a) requires the following: Each local publicly owned electric utility and electrical cooperative shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines and equipment.

The WMP describes the safety-related measures that NCPA follows to reduce its risk of causing wildfires. Dudek has determined that NCPA complies with this standard due to the construction of NCPA’s equipment and resources.



## B. Evaluation of WMP Elements

Dudek found that NCPA's WMP meets the statutory requirements of comprehensiveness per PUC §8387. The review of the WMP's elements is summarized relative to the application of the WMP. The table in Attachment A lists each required element for NCPA's WMP and provides Dudek's assessment of the comprehensiveness of that element within the WMP.

Below is a brief summary of WMP elements as required by PUC §8387, including restating sections of the WMP where applicable.

### 8387(b)(2)(A): Responsibilities of Persons Responsible for Executing the Plan.

Under the direction of the Assistant General Manager for Generation Services, the plant managers are responsible for implementation and execution of the WMP with respect to their facilities.

### 8387(b)(2)(B): Objectives of the Wildfire Mitigation Plan

The objective of the WMP is to reduce the risk of wildfires that could be ignited or propagated by NCPA electrical equipment or facilities in high fire threat locations.

### 8387(b)(2)(C): Prevention Strategies and Programs

NCPA's strategies to reduce wildfire risk include continuous evaluation and improvement of its programs and procedures: including NCPA's (1) facility maintenance program, (2) emergency operating procedures, (3) vegetation management programs, and (4) asset documentation programs. These programs include all details such as goals, objective or percentage, monitor ongoing work, accomplishments, internal and external audits, and detailed reports.

### 8387(b)(2)(D): Metrics and Assumptions for Measuring WMP Performance

The NCPA WMP uses two metrics to measure performance of its wildfire mitigation measures: (1) number of fire ignitions, and (2) wires down events. Dudek has determined that these are appropriate metrics for this WMP.

### 8387(b)(2)(E): Impact of Previous Metrics on WMP

The metrics show zero incidents and indicate success; no WMP changes due to metrics.

### 8387(b)(2)(F): Reclosing Protocols

NCPA does not own or use automatic reclosers on its 230 kV within the scope defined in this WMP.

### 8387(b)(2)(G): De-energization Notification Procedures

In the event of active fire situations, NCPA may be directed by CAL FIRE to de-energize the lines for firefighter and/or aircraft protection. If CAL FIRE requests de-energizing both of the lines, the NCPA Dispatch Center will shut down units before de-energizing these lines.

### 8387(b)(2)(H): Vegetation Management

NCPA has developed and implemented a Transmission Vegetation Management Program (TVMP) to establish the vegetation maintenance requirements for each facility to achieve reliability of its generation interconnection system. The NCPA document defines procedures for vegetation management. NCPA's

TVMP is the plan for all types of vegetation associated with utility infrastructure, from the ground to the sky, which includes vegetation above and below electrical lines.

**8387(b)(2)(I): Inspections**

NCPA performs annual inspections of its transmission and distribution facilities in accordance with General Order 95 and General Order 165. In addition to its annual ground-based inspection, NCPA may augment inspections with aerial drone and/or helicopter surveys.

**8387(b)(2)(J)(i): Risks and Risk Drivers Associated with Design and Construction Standards**

Risks and risk drivers related to design, construction, operation and maintenance include equipment/structure/facilities, object to wire or equipment contact, wire to wire contact, vehicle operations, vegetation clearing, and hot work.

**8387(b)(2)(J)(ii): Risks and Risk Drivers Associated with Topographic and Climatological Risk Factors**

Risks and risk drivers related to Topographic and Climatological Risk Factors include extended drought, vegetation type, vegetation density, weather, high winds, prevailing winds, terrain, changing weather patterns and communities at risk.

**8387(b)(2)(K): Geographical Area of Higher Wildfire Threat**

To identify the areas of NCPA's service territory that are at an elevated or extreme risk of power line-ignited wildfire, NCPA has incorporated the High Fire-Threat District into its construction, inspection, maintenance, repair, and clearance practices, where applicable.

**8387(b)(2)(L): Enterprise-wide Safety Risks**

NCPA regularly evaluates enterprise safety risks, which include severe operating conditions and contingencies. NCPA also performs regular analysis of risks to improve the ability to manage the risks effectively.

**8387(b)(2)(M): Restoration of Service**

After a de-energization event, NCPA will restore service in coordination with PG&E's restoration efforts. NCPA will follow PM-201 and Geothermal Facilities Maintenance Procedure (GEO-646) which specifically address restoration for Hydro and Geothermal facilities respectively.

**8387(b)(2)(N)(i): Monitoring and Auditing WMP Implementation**

The WMP is presented to the NCPA Commission on an annual basis along with metrics and a summary of updates.

**8387(b)(2)(N)(ii): Identifying and correcting WMP deficiencies**

NCPA may correct deficiencies and implement plan improvements as needed. Improvements will be documented in the annual report to the NCPA Commission.

**8387(b)(2)(N)(iii): Monitoring and Auditing the effectiveness of inspections**

NCPA uses General Orders 95 and 165 as guides to inspect its electric supply system.

## CONCLUSION

Dudek concludes that the Northern California Power Agency Wildfire Mitigation Plan comprehensively addresses all of the applicable statutorily required elements for a Publicly Owned Utilities' WMP as specified in California

Public Utilities Code Section 8387, and has been updated to include modifications from the previous year's WMP. Dudek further finds that NCPA has taken reasonable actions to minimize the risk that its lines or equipment will cause a wildfire.

Prepared by,



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Douglas V. Nickles, RPF  
Fire Protection Specialist

Att.: A. WMP Required Element Compliance Matrix under PUC Section 8387  
B. Wildfire Safety Advisory Board 2020 Guidance Recommendations Compliance Matrix  
cc: Scott Eckardt, Dudek

WMP Required Element per PUC Sec 8387(b)(2)	NCPA WMP Section	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's 2nd Assessment of WMP
(A): An accounting of the responsibilities of persons responsible for executing the plan.	Sec. 3.A Utility Governance Structure. Generation Services Assistant General Manager.	Needs clarification of responsibilities. While the organizational structure, responsible department and responsible position are identified, it is not clear what the responsible position's responsibilities are for executing the WMP.	NCPA - Complete. Added "and responsible for executing the WMP"	Meets requirements as modified.
(B): The objectives of the wildfire mitigation plan.	Executive Summary and Sec. 1.B. Purpose of the WMP. 2. Goals.	Meets requirements.	NA	Meets requirements.
(C): A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.	Sec. 5.A. Preventative Strategies and Programs. Sec. 5.C. Potential Climate Change Effects. Sec. 5.D. Potential Climate Change Risk Management Impacts.	Add description of programs. Reference is made to the line maintenance program. No definitive description is provided for the proposed programs.	NCPA - Complete. Revised NCPA's (1) facility maintenance program, (2) emergency operating procedures, (3) vegetation management programs, and (4) asset documentation programs.	Meets requirements as modified.
(D): A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.	Sec. 7.A. Metrics and Assumptions for Measuring Plan Performance.	Meets requirements.	NA	Meets requirements.

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WMP Required Element per PUC Sec 8387(b)(2)	NCPA WMP Section	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's 2nd Assessment of WMP
(E): A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	Sec. 7.B. Impact of Metrics on Plan.	Include discussion of application of previous metrics. No reference is included regarding the impacts on the WMP from past metrics.	NCPA - Complete. Added "2020 WMP Impact Due to Metrics" along with establishing metric summaries to review.	Meets requirements as modified.
(F): Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.	Sec. 5.I. Reclosing Policy. Sec. 5.J. De-Energization. Sec. 5.J.1. Impacts to Public Safety.	Enhance section to clarify role as wholesaler vs. retailer. Reclosers are not employed. Impacts to Public Safety is addressed; any impacts would be addressed by providers of PSPS. Any de-energization is coordinated with Cal Fire and PG&E.	NCPA - Complete. Changed "employ" to "own."	Meets requirements as modified.
(G): Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall direct notification to all public safety offices, critical first responders, health care facilities, and operators of telecommunications infrastructure with premises within the footprint of potential deenergization for a given event.	Sec. 5.J.2. Customer Notification Protocols.	Enhance section to clarify role as wholesaler vs. retailer. As a wholesale provider NCPA has no retail customers; any impacts would be addressed by providers of PSPS.	NCPA - Complete. Added wholesaler vs retailer clarification.	Meets requirements as modified.
(H): Plans for vegetation management.	Sec. 5.F. Vegetation Management.	Meets requirements.	NA	Meets requirements.

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WMP Required Element per PUC Sec 8387(b)(2)	NCPA WMP Section	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's 2nd Assessment of WMP
(I): Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	Sec. 5.G. Inspections.	Meets requirements.	NA	Meets requirements.
(J): A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following: (i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility's or electrical cooperative's equipment and facilities. (ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.	Sec. 4. Wildfire Risks and Drivers. Sec. 4.A. Risks Associated with Topographical and Climatological Factors.	Add list of risks and risk drivers related to design, construction, operation and maintenance; they currently are not addressed.	NCPA - Complete. Clarified 4.B. are Risks and risk drivers related to design, construction, operation and maintenance that could create fire ignition sources.	Meets requirements as modified.

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WMP Required Element per PUC Sec 8387(b)(2)	NCPA WMP Section	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's 2nd Assessment of WMP
(K): Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high-fire threat district based on new information or changes to the environment.		Not addressed. Rather than referring solely to the High Fire-Threat District, include description of the local geography, any specific areas of concern and identification of any changes to be made.	NCPA - Complete. Addressed in 4.c. "NCPA has reviewed current CAL FIRE hazard severity zone and CPUC fire-threat maps with respect to agency facilities, as shown in Appendix 1. These maps have not been adjusted since the noted publication dates nor have any local agencies imposed any expansions to the maps."	Meets requirements as modified.
(L): A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk.	Sec. 4.B. Enterprise-wide Safety Risks.	Meets requirements.	NA	Meets requirements.
(M): A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.	Sec. 7. Restoration of Service.	Needs clarification and details. Statement is very limited with no details, only that restoration will occur in coordination with PG&E and GO-646 procedures. The section should be enhanced to include details on PG&Es restoration efforts and the GO-646 procedure.	NCPA - Complete. Revised this plan to include the statement NCPA will follow PM-201 and Geothermal Facilities Maintenance Procedure (GO-646) specifically address restoration for Hydro and Geothermal facilities respectively. These procedures contain the steps that must be taken to restore such as inspecting, repairing, testing, and finally restoring.	Meets requirements as modified.

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WMP Required Element per PUC Sec 8387(b)(2)	NCPA WMP Section	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions	IE's 2nd Assessment of WMP
(N): A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following: (i) Monitor and audit the implementation of the wildfire mitigation plan. (ii) Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies. (iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.	Sec. 7.C. Monitoring and Auditing the Plan. Sec. 7.D. Identifying and Correcting Deficiencies in the Plan. Sec. 7.E. Monitoring the Effectiveness of Inspections.	The section should be enhanced to include details on how the monitoring will occur throughout the year. It is not clear how deficiencies are identified. Clarification is needed whether or not the proposed effectiveness inspection methods are actually taking place, and if so, by whom.	NCPA - Complete. Added yearly metrics summary including impact to the plan from the metrics summary.	Meets requirements as modified.

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
<b>1. Plan Structure – risk profile</b>				
a) The WMP and Independent Evaluator Reports should be prominently displayed and easily located on the POU websites.	NA	Reports are displayed on POU website.	NCPA - Complete. <a href="http://www.ncpa.com/bidding-opportunities-and-public-notifications/environmental-documents/">http://www.ncpa.com/bidding-opportunities-and-public-notifications/environmental-documents/</a>	Meets WSAB recommendation.
b) Include an index or table that shows where each section of the statute is addressed in the WMP.	Not included.	Include the statute compliance spreadsheet developed by Dudek as Appendix.	Dudek	Meets WSAB recommendation.
c) Include context-setting information at the beginning of each POU plan about each POU's risk profile in accordance with the statutory requirements Public Utilities Code Section 8387(b)(2)	Not included.	Prepare the requested context-setting information and include in Section 1.	NCPA - Complete. Added "NCPA is a Joint Powers Agency, which owns and operates electrical generation. The scope of this plan applies the Geothermal Facility and the Hydro Facility that are located in two different geological areas. These two facilities contain electrical equipment in high fire threat locations. The Geothermal Plant is located around the Geyser territory in Lake County and the Hydro Electric Facility is located in around North Fork Stanislaus."	Meets WSAB recommendation.

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
d) Apply the Board developed template for review of POU WMPs	Not included.	Prepare the requested template and include in Section 1 (attached below).	NCPA. Complete created new table section 1.	Meets WSAB recommendation.
<b>2. Plan Structure – approval process</b>				
a) Provide a paragraph describing the public review process of the plan and how it is approved, if required	Not included.	Prepare the requested paragraph and include in Section 1.	NCPA. Completed. Added to the purpose of the plan to help fill in the overall story. Very ending paragraph to the appending process. "In 2020, This WMP was presented and recorded at a public Brown Act Meeting and is posted on a public website domain..."	Meets WSAB recommendation.
b) Include additional data on monitoring and auditing and how that information is presented	Not included.	Prepare the requested additional data regarding how the information is presented and include in Section 7.C.	NCPA. Complete. Revised to "This WMP is presented to the NCPA Commission on an annual basis along with metrics and a summary of updates."	Meets WSAB recommendation.

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
c) Provide a brief explanation on each funding mechanism to be used to perform wildfire mitigation	Not included.	Prepare the requested explanation for each wildfire mitigation funding mechanism and include in the respective section (i.e., 3.B., 3.C., 5.A., 5.F, 5.G, 5.H).	NCPA - Complete. The following statement applies to all funding authority "NCPA is governed by a Commission comprised of one representative for each member. The Commission is responsible for the general management of the affairs, property, and business of the Agency. Under the direction of the General Manager, the staff of the Agency is responsible for providing various administrative, operating and planning services for the Agency. This establishes all funding and is applied to all wildfire funding mechanisms in this plan (i.e., 3.B., 3.C., 5.A., 5.F, 5.G, 5.H)."	Meets WSAB recommendation.
<b>3. Plan Structure – independent evaluations</b>				
a) IEs should perform a robust evaluation of the contents and substance of the POU's WMP	NA	Dudek to perform the requested evaluation.	Dudek	Meets WSAB recommendation.
b) Include evaluations of how each POU compares to the IE's assessment of industry standards	NA	Dudek to perform the requested evaluation.	Dudek	Meets WSAB recommendation.
<b>4. Plan structure – Utility groupings</b>				

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
a) 2021 POU WMPs and/or updates should be based on the guidelines		WMP to be updated in accordance with the recommended guidelines.	NCPA - Complete. This evaluation serves as a WMP updated based on Dudek's and WSAB recommendations.	Meets WSAB recommendation.
b) The industry should create a revised template that reflects the learnings from the 2020 initial effort	NA	NA	NA	NA
<b>5. Customer Impacts – PPS shutoffs</b>				
a) Utilities should provide the context-setting information	Sec. 5.J.2. Customer Notification Protocols	The context-setting information should be enhanced in this section to reference customer impacts as well as customer notification (re-emphasize role as wholesaler vs. retail provider). Consider adding a separate Customer Impacts section.	NCPA - Complete. Revised as "NCPA provides wholesale power to City's and utilities typically known as NCPA members. Since NCPA does not have retail customers, like commercial or private residences, no customer notification protocols are in place."	Meets WSAB recommendation.
b) Include a detailed protocol to address these concerns to understand the strategic direction and effectiveness of each POU	Sec. 5.J.2. Customer Notification Protocols	See 5.a) above.	NCPA - Complete. Revised as "NCPA provides wholesale power to City's and utilities typically known as NCPA members. Since NCPA does not have retail customers, like commercial or private residences, no customer notification protocols are in place."	Meets WSAB recommendation.
<b>6. Customer impacts – communication plans</b>				

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
a) Describe the specific methods, content, and timing used to communicate with customers	Sec. 5.J.2. Customer Notification Protocols	The communication information should be enhanced in this section to reflect the context-setting information requested as noted above in 5.a).	NCPA - Complete. Revised as "NCPA provides wholesale power to City's and utilities typically known as NCPA members. Since NCPA does not have retail customers, like commercial or private residences, no customer notification protocols are in place."	Meets WSAB recommendation.
b) Provide an evaluation of whether the current method of emergency communication appears sufficient and, if not, what can be done to improve it, especially protocols for notifying customers, essential service providers, and other critical facilities of IOU or self-triggered PSPS events	Sec. 5.J.2. Customer Notification Protocols	See 5.a) above.	NCPA & Duke - Complete. "Complete. Revised as "NCPA provides wholesale power to City's and utilities typically known as NCPA members. Since NCPA does not have retail customers, like commercial or private residences, no customer notification protocols are in place."	Meets WSAB recommendation.
<b>7. The Grid – hardening</b>				
a) Provide information on existing and planned system upgrades	Sec. 2.B. Resiliency of the Electric Grid	Enhance this section to provide specific examples of upgrades as requested.	NCPA - Complete. NCPA is a relatively smaller utility with a small asset count. The list is updated and on 5.A. (1)	Meets WSAB recommendation.
b) Provide details of each utility's system hardening and grid design programs described in the WMP filing	Sec. 2.A. Minimizing Sources of Ignition	Enhance this section to provide details of programs as requested.	NCPA - Complete. Organized programs and procedures 5.A.	Meets WSAB recommendation.

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
c) Indicate the goals of the programs and the risk any particular program is designed to mitigate	Sec. 2 Goals	Enhance this section to show nexus between goals, programs and mitigation as requested.	NCPA - Complete. Revised and organized programs and procedure in Section 5.	Meets WSAB recommendation.
d) Provide the approach to PSPS mitigation and prevention	Sec. 3.C. Wildfire Response and Recovery; Sec. 5.J.1. Impacts to Public Safety; Sec. 5.J.2. Customer Notification Protocols	The PSPS information should be enhanced to reference mitigation and prevention as requested (re-emphasize role as wholesaler vs. retail provider). Consider adding a separate "PSPS" section.	NCPA - Complete. Added NCPA's wholesaler information to first paragraph for clarification.	Meets WSAB recommendation.
e) Identify any supply shortages	NA	Identify any supply shortages as requested. See 7.d) above.	NCPA - Complete. Updates to include "no supply shortages" in relation to PSPS.	Meets WSAB recommendation.
<b>8. The Grid – inspections</b>				
a) Describe the unique risks a utility is inspecting for, such as insect, wildfire incursion, wood split, woodpeckers, purposeful insulator destruction, termites, etc., to be included in the WMP	Sec. 5.G. Inspections	Enhance this section to describe the unique risks as requested.	NCPA - Complete. Added "Section 4.B. of this WMP outlines the unique risks NCPA inspects for. "	Meets WSAB recommendation.
b) Describe whether and how system inspections lead to system improvements	Sec. 5.G. Inspections	Enhance this section to describe the resulting system improvements as requested.	NCPA - Complete. Added "NCPA's asset management system also allows these improvements to be evaluated as observations and comments are made when work orders for	Meets WSAB recommendation.

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
			maintenance items are executed."	
<b>9. The Grid – risks</b>				
a) Consider different options for surfacing, for further consideration and remediation, previously unidentified risks that could lead to catastrophic wildfires	Sec. 4 Wildfire Risks and Drivers	Enhance this section to describe the different options considered as requested.	NCPA - Updated Section 5.A. (1) to add "NCPA's aggressive approach to reduce transmission tie-line risk by completely upgrading insulators on this asset, NCPA's longest line, of 40 Miles. This project was considered a major cost in capital and prioritized for wildfire prevention."	Meets WSAB recommendation.
<b>10. Risk assessment – construction</b>				
a) State the particular wildfire risks associated with system design and construction such as topography and location near a HFTD of another utility	Not included. Wildfire risks are identified in Sec. 4.A., but there is no reference to design and construction.	Include risks associated with design and construction as requested.	NCPA - Complete. Added "There are no new wildfire risks associated to design and construction of new assets. NCPA is currently Operating and Maintain original generating facilities. No new construction in the immediate future."	Meets WSAB recommendation.

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
b) Provide information about G.O. 95 exempt assets, and possible updates to G.O. 95, that could facilitate more resilient utility transmission and distribution assets	Not included.	Include information about exempt assets and updates as requested, possibly in Sec. 2. B.	NCPA - Complete. Leave as stated in Section 5.E.. "NCPA meets: (1) Public Resources Code section 4292; (2) Public Resources Code section 4293; (3) General Order 95 Rule 35; and (4) General Order 95 Appendix E Guidelines to Rule 35."	Meets WSAB recommendation.
<b>11. Risk assessment – situational awareness</b>				
a) Include context setting information in the WMPs including information about the prevailing wind directions and speeds, differentiated by season, along with average weather conditions by season	Sec. 4.A. Risks Associated with Topographical and Climatological Factors.	Enhance this section with context setting information as requested, including the detailed wind information.	NCPA - Complete. "Prevailing Winds: Using live data, NCPA monitors prevailing winds directions and speeds, differentiated by season, along with average weather conditions by season using NCPA real-time observations noting disturbing local weather. Live data is used with the fire maps located in Appendix 1. PG&E's Weather Awareness website is a resource for real-time conditions: <a href="https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/psps-weather-">https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/psps-weather-</a>	Meets WSAB recommendation.

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
			map.page?WT.mc_id=Vanity_weather"	
b) Include information on how and why situational awareness technology is installed, and where on the system	Sec. 5.A. Preventative Strategies and Programs.	Enhance this section with information on technology installation as requested.	NCPA - Complete. Added for clarity. "This information is used in communication and aids to analyze wildfire situations."	Meets WSAB recommendation.
c) Provide insight into decisions that are made not to install situational awareness technology	Sec. 5.A. Preventative Strategies and Programs.	See 11.c) above.	NCPA	Meets WSAB recommendation.
d) Are there constraints such as budgets, availability of equipment, knowledge to effectively deploy, or qualified personnel to install and monitor effectively?	Sec. 5.A. Preventative Strategies and Programs.	Enhance this section to address the constraints listed as requested.	NCPA - Complete. Added to 5.A. "There are no constraints such as budgets, availability of equipment, knowledge to effectively deploy, or qualified personnel to install and monitor effectively."	Meets WSAB recommendation.
e) Provide information about whether this modeling data is received from or	Sec. 5.A. Preventative	Enhance this section to provide information regarding modeling data as requested.	NCPA - Complete. Data source is shared and comes from PGE.	Meets WSAB recommendation.

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
shared with other agencies, utilities, or fire professionals	Strategies and Programs.			
<b>12. Vegetation Management – utility requirements</b>				
a) Describe treatment plans for all types of vegetation associated with utility infrastructure, from the ground to the sky, which includes vegetation above and below electrical lines	Sec. 5.F. Vegetation Management	Enhance this section to describe the treatment plans as requested (reference is made to the TVMP - provide details).	NCPA - Added clarity that section 5.E. is "NCPA's plan for all types of vegetation associated with utility infrastructure, from the ground to the sky, which includes vegetation above and below electrical lines. "	Meets WSAB recommendation.
<b>13. Vegetation management – personnel qualifications</b>				
a) List the qualifications of any experts relied upon, such as scientific experts in ecology, fire ecology, fire behavior, geology, and meteorology	Sec. 5.F. Vegetation Management	Enhance this section to list the qualifications as requested.	NCPA - Complete added to section 5.E. "NCPA uses a combination of its own staff (manager, supervisor or competent designee) and the retention of qualified consultants (such as scientific experts in ecology, fire ecology, fire behavior, geology, and meteorology) with experience in line design, line construction, NERC Standards compliance, and vegetation management to develop and maintain the TVMP."	Meets WSAB recommendation.

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
b) Specify the level of expertise of the POU staff that manages the contractors performing vegetation management	Sec. 5.F. Vegetation Management	Enhance this section to specify the level of expertise as requested.	NCPA - Complete. "NCPA uses a combination of its own staff (manager, supervisor or competent designee) and the retention of qualified consultants (such as scientific experts in ecology, fire ecology, fire behavior, geology, and meteorology) with experience in line design, line construction, NERC Standards compliance, and vegetation management to develop and maintain the TVMP."	Meets WSAB recommendation.
c) Describe measures taken to ensure that POU staff and contractors comply with or verify compliance with Cal/OSHA standards on Minimum Approach Distances (MAD)	Sec. 5.F. Vegetation Management	Enhance this section to describe the measures as requested.	NCPA - Complete. The TVMP specifies technical requirements for staff and contractors to comply with or verify compliance with Cal/OSHA standards and NCPA Electrical Safety Procedure GS-103 ensures Cal/Osha and Minimum Approach Distances (MAD).	Meets WSAB recommendation.
14. Vegetation management - innovation				

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May 2021

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WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
a) Describe whether the POU has considered innovative and alternative approaches to vegetation management such as, but not limited to, requiring property owners to manage vegetation a certain distance from structures or utility lines, and pilot programs in home hardening	Sec. 5.F. Vegetation Management	Enhance this section to describe the approaches considered as requested.	NCPA - No innovative ideas to note.	Meets WSAB recommendation.

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April 14, 2022

12108.07

Mr. Jeremy Lawson  
Northern California Power Agency  
651 Commerce Drive  
Roseville, CA 95678

**Subject: Independent Evaluation Report of Northern California Power Agency's 2022 Wildfire Mitigation Plan**

## 1 Introduction

The Northern California Power Agency (NCPA) contracted with Dudek to engage in an independent evaluation of its Wildfire Mitigation Plan (WMP). This independent evaluation report (Report) describes the technical review and evaluation of the WMP prepared by Dudek, performed in February through April 2022, and completed on April 14, 2022.

Dudek conducted an evaluation of NCPA's WMP, as required under California Public Utilities Code (PUC) §8387(b). PUC §8387(b), as modified by Senate Bill (SB) 901, and the Administrative Law Judge's Ruling issued on January 17, 2019 in California Public Utilities Commission (CPUC) Docket No. R.18-10-007 (ALJ Ruling), applies to publicly owned electric utilities and required preparation of a WMP before January 1, 2020, and revising/updating the WMP in 2020 and annually thereafter.

The WMP requirements are codified in PUC §8387(b)(2) for local publicly owned electric utilities (POUs). PUC §8387(c) requires that an independent evaluator review and assess the comprehensiveness of a POU's WMP and issue a summary report.

Dudek conducted an initial review of NCPA's WMP (version 1.3) and provided recommendations for clarifications/modifications on March 3, 2022. The focus of the evaluation was to determine whether the WMP included all elements required under PUC §8387(b)(2) (listed in Attachment A). The evaluation determined that the NCPA's 2022 Wildfire Mitigation Plan does include all the PUC §8387(b)(2) requirements.

In addition to evaluating the elements required by the Public Utility Code, Dudek evaluated the WMP for compliance with the Wildfire Safety Advisory Board (WSAB) Publicly Owned Utilities (POUs) WMP guidance recommendations and to address any deficiencies in the WSAB review of the 2022 WMP that was published on their website. Dudek worked NCPA staff to revise the WMP to meet the recommendations of the Guidance Advisory Opinion for 2022 WMPs that are relevant to the NCPA's service territory (See Attachment B for Compliance Matrix). This included more detailed explanations of the wildfire risks in the utility's service territory and the wildfire prevention programs that are designed to address these risks.

## 2 Wildfire Mitigation Plan Requirements

### A. Senate Bill 901

Per Senate Bill (SB) 901, all Publicly Owned Utilities are required to adopt a Wildfire Mitigation Plan (WMP), which shall be reviewed by an independent third-party evaluator. SB 901 requires the governing board to determine whether any portion of the geographical area where the utility's overhead electrical lines and equipment are located has a significant risk of catastrophic wildfire resulting from those electrical lines and equipment. The bill directs electrical utilities to annually prepare WMPs that include several mitigation and response elements in each utility's strategies, protocols, and programs. Each electric utility is to prepare and adopt a comprehensive WMP before January 1, 2020. The requirements for POUs are presented in PUC §8387. In addition, the WMP shall be reviewed by an approved, independent, third-party evaluator to review and assess the comprehensiveness of, and the POU's compliance with, this Plan.

### B. AB 1054 & AB 111

Per Assembly Bill (AB) 1054, POUs must annually submit a WMP to the California Wildfire Safety Advisory Board, which will review the WMP and provide recommendations on mitigating wildfire risk. AB 1054 contains similar WMP requirements to SB 901 but allows WMPs of a three-year, rather than one-year duration. AB 111 establishes the Wildfire Safety Division within the Public Utilities Commission.

### C. Northern California Power Agency WMP Requirements

PUC §8387(b)(2) lists the statutory requirements for WMPs. These are the specific elements that the independent evaluator must review to make its determination for this report. The specific elements that must be addressed in NCPA's WMP are included in Table A (see Attachment A) and are summarized here for reference.

- The responsibilities of persons responsible for executing the plan.
- The objectives of the wildfire mitigation plan.
- The preventive strategies and programs to be adopted to minimize the risk of its electrical lines and equipment causing catastrophic wildfires.
- The metrics to use to evaluate the wildfire mitigation plan's performance.
- How the application of previously identified metrics has informed the wildfire mitigation plan.
- Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts.
- Procedures for notifying a customer who may be impacted by the deenergizing of electrical lines.
- Plans for vegetation management.
- Plans for inspections of the electrical infrastructure.
- Description of wildfire risks, and drivers for those risks, throughout the service territory.
- Identification of any geographic area in the service territory that is a higher wildfire threat than is identified in a commission fire threat map.
- Identification of enterprise-wide safety risk and wildfire-related risks.
- How the service will be restored after a wildfire.
- The processes and procedures used to monitor and audit the implementation of the wildfire mitigation plan, identify any deficiencies, and the effectiveness of electrical line and equipment inspections.

### 3 Description of the Northern California Power Agency

NCPA is a Joint Powers Agency, which owns and operates electrical generation facilities. NCPA is governed by a Commission comprised of one representative for each of its public power utility members.

The WMP applies to the NCPA's geothermal facility and a hydro facility plus transmission and distribution lines. These two facilities contain electrical equipment in high fire threat locations and power lines that traverse high fire threat areas. The geothermal facility is located around the Geyser territory in Lake County and consists of five geothermal facilities spread over 30 square miles. The Hydro Electric facility is in the North Fork Stanislaus River watershed (Calaveras County) and consists of eight generator/water diversion stations and an office located along the river. There are approximately 40 miles of power lines between the generation facilities and their tie-in points with PG&E transmission wires. NCPA electrical infrastructure consists of facilities that are in Moderate to Very High Fire Hazard Severity Zones (CAL FIRE) and/or Tier 2/3 CPUC Fire Threat Zones.

NCPA has taken appropriate actions to help prevent and respond to the increasing risk of devastating wildfires by following all applicable design, construction, operation, and maintenance requirements that reduce safety risks associated with its electric system.

### 4 Independent Evaluation

#### A. Independent Evaluator Requirement

PUC §8387 requires each POU to "contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan." Additionally, the independent evaluator's assessment of the comprehensiveness of the POU's WMP must be issued in a report that is both posted to the POU's website and presented at a public meeting of the POU's governing board.

#### B. Dudek's Qualifications

According to PUC §8387(c), the qualified independent evaluator that performs the assessment of NCPA's WMP must have "experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan." NCPA has determined that Dudek is the independent evaluator who adequately understands the local conditions and fire risks of the service area.

#### C. Evaluation Methodology

Dudek evaluated the comprehensiveness of the NCPA's 2022 WMP on the following measures:

- **Statutory Compliance:** Dudek ensured that each required element specified in PUC §8387 is either addressed in NCPA's WMP or that NCPA has sufficiently described why that element is not applicable due to NCPA's size, geography, system, or other relevant factor.
- **Fulfillment of Wildfire Safety Advisory Board Guidance:** Dudek reviewed WSAB guidance publications for Publicly Owned Utilities for recommendations that were relevant to the NCPA's WMP and then compared the Board's recommendation to the content of the WMP.



- **Industry Comparison:** While the NCPA differs from many nearby utilities in that they provide power to other utility agencies and not consumers, they do use similar equipment and operational procedures as nearby POUs that serve consumers. Dudek compared the elements of the NCPA's WMP, their operations, and the equipment to those used by other agencies to minimize wildfire ignition and spread. Where there was no other agency(s) to compare to (e.g., geothermal plants), Dudek used industry standards.

#### D. Metrics

The NCPA's Wildfire Mitigation Plan uses the following metrics to measure performance of its wildfire mitigation measures: (1) number of fire ignitions, and (2) wires down events. Dudek has determined that these are appropriate metrics for this WMP and that the WSAB has concluded that these two metrics, are generally acceptable metrics for a WMP.

Dudek recommended that the NCPA consider adding a new metric or revising one of the current metrics to integrate a metric that shows the actions NCPA is taking in their service territory to reduce wildfire ignition risk. NCPA staff acted on Dudek's recommendation, evaluating their current operations and their service territory for other useful indicators of wildfire risk. Fire weakened trees and slopes are hazard to NCPA's transmission wires where they pass through fire scars. NCPA is incorporating a third metric into their WMP that measures fall in trees, trees of height sufficient to represent a contact hazard to the Distribution Line if destabilized due to soil instability at the tree base,

## 5 Evaluation of the Northern California Power Agency Wildfire Mitigation Plan

#### A. Minimizing Wildfire Risks

PUC §8387(a) requires the following: "Each local publicly owned electric utility and electrical cooperative shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines and equipment."

The WMP describes the safety-related measures that NCPA follows to reduce its risk of causing wildfires. Dudek has determined that NCPA complies with this standard through the design of its system and the construction of its equipment and resources.

#### B. Evaluation of WMP Elements

Dudek found that NCPA's WMP meets the statutory requirements of comprehensiveness per PUC §8387. The review of the WMP's elements is summarized relative to the application of the WMP. The table in Attachment A lists each required element for NCPA's WMP and provides Dudek's assessment of the comprehensiveness of that element within the WMP.

Below is a summary of the WMP elements as required by PUC §8387, including restating sections of the WMP where applicable.

8387(b)(2)(A): Responsibilities of Persons Responsible for Executing the Plan.

**Under the direction of the Assistant General Manager for Generation Services, the plant managers are responsible for implementation and execution of the WMP with respect to their facilities. The NCPA dispatch center in Roseville has responsibility for the generator tie-in lines.**

8387(b)(2)(B): Objectives of the Wildfire Mitigation Plan

**The objectives of the WMP are to: minimize the probability that NCPA's system is the origin or contributing source for a wildfire ignition, improve the resiliency of the electric grid, specifically to reduce the likelihood of an interruption of service and an improvement in the restoration of service after an interruption, and to improve the effectiveness of their wildfire prevention strategies by modifying or replacing elements of their wildfire prevention program that are ineffective**

8387(b)(2)(C): Prevention Strategies and Programs

**NCPA's strategies to reduce wildfire risk include continuous evaluation and improvement of its programs and procedures: including NCPA's (1) facility maintenance program, (2) emergency operating procedures, (3) vegetation management programs, and (4) asset documentation programs. These programs include all details such as goals, objective, or percentage, monitor ongoing work, accomplishments, internal and external audits, and detailed reports. Additional programs such as coordination with CAL FIRE and wildfire prevention training for NCPA staff complement their core fire prevention programs. Attachment C in the WMP contains a table which describes identified risk drivers within NCPA service territory and preventative strategies implemented by the utility. The table includes controls NCPA has implemented to address each risk or risk driver listed.**

8387(b)(2)(D): Metrics and Assumptions for Measuring WMP Performance

**The NCPA WMP uses two metrics to measure performance of its wildfire mitigation measures: (1) number of fire ignitions, and (2) wires down events. Dudek has determined that these are appropriate metrics for this WMP.**

8387(b)(2)(E): Impact of Previous Metrics on WMP

**The metrics show zero incidents and indicate success; no WMP changes due to metrics.**

8387(b)(2)(F): Reclosing Protocols

**NCPA does not own or use automatic reclosers on its 230 kV within the scope defined in this WMP. This is a typical industry standard for distribution and transmission wires in rugged and remote terrain.**

8387(b)(2)(G): De-energization Notification Procedures

**In the event of active fire situations, NCPA may be directed by CAL FIRE to de-energize the lines for firefighter and/or aircraft protection. NCPA de-energization notification procedures depend on which lines and facilities are being de-energized. If the Hydro facilities and 230 kV lines are de-energized then NCPA personnel will work with CAL FIRE and their dispatch center in Roseville to notify fire fighters, NCPA facility**

staff, PG&E, and NCPA members. For the geothermal facilities relies on PG&E to make the determination whether these facilities and their lines are to be de-energized. NCPA dispatch would communicate PG&E direction to NCPA personnel and NCPA members.

8387(b)(2)(H): Vegetation Management

NCPA has developed and implemented a Transmission Vegetation Management Program (TVMP) to establish the vegetation maintenance requirements for each facility to achieve reliability of its generation interconnection system. The NCPA document defines procedures for vegetation management. NCPA's TVMP is the plan for all types of vegetation associated with utility infrastructure, from the ground to the sky, which includes vegetation above and below electrical lines.

8387(b)(2)(I): Inspections

NCPA performs annual inspections of its transmission and distribution facilities in accordance with General Order 95 and General Order 165. Enhanced inspections are performed on the Collierville-Bellota 230 kV line including lidar vegetation flights, corona scans of insulators, infrared inspections of lines and equipment. In addition to its annual ground-based inspection, NCPA may augment inspections with aerial drone and/or helicopter surveys.

8387(b)(2)(J)(i): Risks and Risk Drivers Associated with Design and Construction Standards

Risks and risk drivers related to design, construction, operation, and maintenance include equipment/structure/facilities, object to wire or equipment contact, wire to wire contact, vehicle operations, vegetation clearing, and hot work. Attachment C in the WMP contains a table which describes identified risk drivers within NCPA service territory and preventative strategies implemented by the utility. The list includes risk drivers and risks related to design and construction standards.

8387(b)(2)(J)(ii): Risks and Risk Drivers Associated with Topographic and Climatological Risk Factors

Risks and risk drivers related to Topographic and Climatological Risk Factors include extended drought, vegetation type, vegetation density, weather, high winds, prevailing winds, terrain, changing weather patterns and communities at risk. Communities at risk is a design and construction standard and it is recommended that it is moved to that section. The plan discussed prevailing wind patterns in the service territory and the impact the winds have on the conductors. Also discussed is the impact that previous large fires in their service territory have on risks associated with topographic and climatological factors. Attachment C in the WMP contains a table which describes identified risk drivers within NCPA service territory and preventative strategies implemented by the utility. The list includes risk drivers and risks related to topographic factors within NCPA's service territory.

8387(b)(2)(K): Geographical Area of Higher Wildfire Threat

To identify the areas of NCPA's service territory that are at an elevated or extreme risk of power line-ignited wildfire, NCPA has incorporated the High Fire-Threat District into its construction, inspection, maintenance, repair, and clearance practices, where applicable.

8387(b)(2)(L): Enterprise-wide Safety Risks

**NCPA regularly evaluates enterprise safety risks, which include severe operating conditions and contingencies. NCPA also performs regular analysis of risks to improve the ability to manage these risks effectively.**

8387(b)(2)(M): Restoration of Service

**After a de-energization event, NCPA will restore service in coordination with PG&E's restoration efforts. NCPA will follow PM-201 and Geothermal Facilities Maintenance Procedure (GEO-646) which specifically address restoration for Hydro and Geothermal facilities respectively.**

8387(b)(2)(N)(i): Monitoring and Auditing WMP Implementation

**The WMP is presented to the NCPA Commission on an annual basis along with the metrics and a summary of updates.**

8387(b)(2)(N)(ii): Identifying and correcting WMP deficiencies

**NCPA may correct deficiencies and implement plan improvements as needed. Improvements will be documented in the annual report to the NCPA Commission.**

8387(b)(2)(N)(iii): Monitoring and Auditing the effectiveness of inspections

**NCPA uses General Orders 95 and 165 as guides to inspect its electric supply system. The effectiveness of ground inspections is typically monitored by 'ride-a-longs' performed by NCPA staff and CAL FIRE staff with inspection personnel. Independent professionals are contracted to review lidar data and other inspection data that is collected remotely.**

## 6 Wildfire Safety Advisory Board Recommendations

The Wildfire Safety Advisory Board produces guidance documents for publicly owned utilities annually. These documents describe elements that should be revised or expanded in future WMPs to better organize the plan, clarify where PUC required information can be found, and to provide a more comprehensive description of the utility's wildfire prevention programs. Dudek reviewed the WSAB most recent guidance document and compared contents of the NCPA's 2022 WMP to each recommended element.

### 1. Plan Structure, Staffing, and Evaluations

A. Context Setting Information: The WSAB recommended that POU's use an upfront table that contains information about the utility including number of customers, the size of its service areas, the service area within a high fire threat area, asset mix, and more. The intent was to provide a reviewer of the plan with a plain and accessible summary of the utility. The WSAB provided a template for this table in 2021. **NCPA's WMP uses the WSAB template and has the completed table in the Overview section of their plan.**

B. General WMP Objectives: Many POU's use two general objectives; 1. Minimizing sources of ignition and 2. Improving the resiliency of the grid. These are valid objectives but the WSAB believes that they may lead

to limited approach by a utility to wildfire prevention. The WSAB recommends that POU's take a broader approach to their objectives and consider objectives that mitigate other risks associated with wildfire such as minimizing wildfire spread. **NCPA's WMP objectives include these two general objectives; however, their WMP does describe wildfire prevention programs that go beyond minimizing new ignitions and hardening their equipment against wildfire. For example, their vegetation management program TVMP inspects and manages surface vegetation near their assets as well as trees near their power lines.**

C. Staff Responsibilities and Approval Protocols: The WSAB requested that future WMPs include additional context information regarding the public input and approval processes for the WMP of each POU. **The WMP contains a description in the Overview section of the NCPA's WMP approval process that begins with a presentation of the WMP to the NCPA Facilities Committee for comment, then is routed for final approval to the NCPA Commission, public meeting and NCPA commission meeting. Past WMP's are available on the NCPA website.**

D. Metric Development and Evaluation: Many POU's use two basic metrics; 1. New ignitions and 2. Wires down. These are valid metrics but the WSAB recommends that POU's consider adding or replacing these metrics with ones that better apply to their service territory and metrics that show progress towards an outcome as opposed to a metric that shows the outcome. **The WMP contains the two basic metrics, and these are relevant metrics to the NCPA's assets. NCPA is evaluating adding a third metric to evaluate the effectiveness of their plan in reducing the risk posed to their wires by fire weakened trees and slopes. The NCPA does track their two current metrics and the results are published in the WMP.**

## 2. Grid Design, System Hardening, Operations and Inspections:

A. In 2021 the WSAB requested POUs answer several questions about their system design and construction. The questions: 1. Are there design or construction issues related to the utility's specific topography or geographic location that the Board should be aware of? 2. How will the utility address risks associated with facilities requiring power that about a Tier 2 or Tier 3 HFTD? 3. How does the utility assess its risks associated with system design and construction? 4. In what areas does the utility consider going above and beyond G.O. 95 or other General Order standards related to design and construction? **Chapter 5 Section A of the WMP provides general overview to these four questions, followed by a description of several example programs NCPA has incorporated on their transmission and generation assets.**

B. The WSAB observed that the many POU WMPs state that they meet or exceed the CPUC GO 95 standards for their inspections. The WSAB comment is that the WMPs do not state if the POU are meeting the minimum standards of GO 95 or exceeding it where circumstances merit it. The WSAB is recommending that WMPs include a description of whether their inspection programs go beyond the GO 95 standards, why they do, and how they do. **The NCPA's WMP does not use the statement "meet or exceed" and the plan does describe the inspections it performs on its assets that exceed the requirements of GO 95 including how they exceed the standard. The reasons for the inspections that go beyond the CPUC standards are summarized in the WMP with references to the NCPA documents or policies with more detailed explanations**

C. The WSAB would like POUs to include in their WMPs a description of the new ideas or enhanced protocols the utility is considering in the design, building, and maintaining their system to mitigate the wildfire risk in the future. **The WMP includes descriptions of the ongoing improvements to NCPA assets (upgrading**



equipment on their power lines) and enhancements they are making to their inspection process by upgrading frequency or the scope of inspections or where they are incorporating new techniques, such as using UAVs.

### 3. Vegetation Management and Inspections:

The WSAB requested that POUs describe their vegetation management practices and evaluate their impact on reducing wildfire related risk as well as the ecological impacts of the treatment options chosen. The NCPA's WMP provides a general description of their vegetation management program and references their TVMP. The TVMP contains a detailed description of the utility's vegetation practices including what types of vegetation are treated, where they treated, and how often. The WMP also describes how their vegetation management standards exceed the GO 95 and which standard they use as their guidelines for their enhanced vegetation management program (CAL FIRE Power Line Fire Prevention Field Guide).

## 7 Comparison of Industry Standards to the Operations and Equipment in use by the Northern California Power Agency

Dudek compared operational procedures and equipment used by the NCPA to mitigate wildfire risk in their service territory with mitigation measures in approved Wildfire Mitigation Plans from a similar utilities and electrical industry standards.

### Avian Deterrents

The NCPA has installed avian deterrents and anti-nesting cones on its 230 kV Collierville-Bellota line, a 40-mile-long transmission line that traverses remote and mountainous terrain. Large birds are a common hazard for power line poles and towers, installing these devices on the towers along this line prevents large birds from using the towers as perches and nesting sites. This is a typical industry practice and a CALFIRE recommended practice to prevent equipment failure and wildfire ignitions due to electrocuted birds or the accumulation of bird droppings on electrical equipment.

### Insulator Replacement

The NCPA has upgraded the insulators on its 230 kV Collierville-Bellota line, a 40-mile-long transmission line that traverses remote and mountainous terrain. The line is over 30 years old, and the insulators were replaced as part of a larger program to improve the safety and reliability of the line. This is a typical industry practice and replacing aging insulators reduces the risk of equipment failure, flash-over or arcing, or electrical current discharging into the ground through the pole.

### Conductor Damping

The NCPA has installed mass dampers on its 230 kV Collierville-Bellota line, a 40-mile-long transmission line that traverses remote and mountainous terrain. Conductor damping is a typical industry practice to minimize wear or conductor fatigue near the hardware attachments. While this upgrade is not specific to preventing wildfire ignition it does reduce the risk of conductor or equipment failure, an event which could ignite a wildfire.



### Disabling Reclosing Operations

The NCPA does not use automatic reclosers on its 230kV transmission line due to its location in rugged and remote terrain. This is a typical industry practice for both life safety and fire hazard reasons. In place of an automatic reclosers, NCPA coordinates re-energization of a tripped line with their dispatch office in Roseville, NCPA generation services, and PG&E. Lines are not re-energized until they have been visually inspected.

## 8 Conclusion

Dudek concludes that the Northern California Power Agency Wildfire Mitigation Plan comprehensively addresses all the applicable statutorily required elements for a Publicly Owned Utilities' WMP as specified in California Public Utilities Code Section 8387. Dudek finds that NCPA has taken reasonable actions to minimize the risk that its lines or equipment will cause a wildfire. Finally, Dudek finds that the NCPA has reviewed the guidance documentation provided by the WSAB and is incorporating recommended improvements to their WMP and their wildfire prevention programs.

Sincerely,



Jeremy Cawn  
Fire Protection Planner/Urban Forestry Specialist

## Attachment A: CPUC 8387(b)(2) Requirement Chart

2022			
2022 WMP Required Element per PUC Sec 8387(b)(2)	2022 NCPA WMP section	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions
(A): An accounting of the responsibilities of persons responsible for executing the plan.	Sec. 3.A Utility Governance Structure. Generation Services Assistant General Manager.	Acceptable	
(B): The objectives of the wildfire mitigation plan.	Executive Summary and Sec. 1.B. Purpose of the WMP. 2. Goals.	Acceptable	
(C): A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.	Sec. 5.A. Preventative Strategies and Programs. Sec. 5.C. Potential Climate Change Effects. Sec. 5.D. Potential Climate Change Risk Management Impacts.	Acceptable. Section 5 provides a comprehensive overview of the different wildfire prevention programs.	Section 5A. Any changes or updates to the maintenance projects and programs? Moved from 2021 to 2023 due to PGE... Section 5F. Any aerial drone or helicopter surveys worth noting? Geothermal Drone. NCPA works with Cal Fire to manage and phase maintenance work to the line. NCPA Update: Metrics reflect up to date. Good performance.
(D): A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.	Sec. 7.A. Metrics and Assumptions for Measuring Plan Performance.	Acceptable	
(E): A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	Sec. 7.B. Impact of Metrics on Plan.	Acceptable. Consider selecting a new metric that measures an element that could lead to a wildfire ignition, such as trees without adequate clearance or equipment malfunctions detected.	NCPA has implemented enhanced inspection processes for its distribution lines that include identification of hazard trees that although outside of the normal radius of VMP clearing, still may represent a fall in hazard to wildfire ignition if toppled. NCPA has added this metric to both the WMP and to the VMP.

2022			
2022 WMP Required Element per PUC Sec 8387(b)(2)	2022 NCPA WMP section	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions
(F): Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.	Sec. 5.I. Reclosing Policy. Sec. 5.J. De-Energization. Sec. 5.J.1. Impacts to Public Safety.	Acceptable	
(G): Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall direct notification to all public safety offices, critical first responders, health care facilities, and operators of telecommunications infrastructure with premises within the footprint of potential de-energization for a given event.	Sec. 5.J.2. Customer Notification Protocols.	Acceptable.	
(H): Plans for vegetation management.	Sec. 5.F. Vegetation Management.	Section 5E. Any changes or updates to the Generation Services Common Procedure GS-305? Link. Acceptable. The WMP does a good job at describing general Veg Mgmt. The TVMP plan provides most of the required details to meet this sections requirements, consider adding elements of the TVMP to the WMP	NCPA added the following to Section 5.F: "Specific hazards addressed in the TVMP include identification of encroachment into the Clearance area (section 6.3.7), and additional inspection activities to identify deadfall and brush in the ROW that could provide fuel for wildfire spread (section 6.3.9). The TVMP also provides explicit direction to treat emergent conditions of a potential hazard as an immediate mitigation priority (section 6.4.4), including addressing extent of condition."
(I): Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	Sec. 5.G. Inspections.	Acceptable. The WMP does a good job of describing general inspection process. Details regarding the types of	

2022			
2022 WMP Required Element per PUC Sec 8387(b)(2)	2022 NCPA WMP section	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions
(J): A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following: (i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility's or electrical cooperative's equipment and facilities. (ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.	Sec. 4. Wildfire Risks and Drivers. Sec. 4.A. Risks Associated with Topographical and Climatological Factors.	inspections performed and when they are performed would be beneficial. Acceptable. The WMP does a good job of describing general risks to the service territory both climate and terrain as well as operational and equipment. The risks specific to NCPA service territory are not described and it would be beneficial to add some NCPA specific risk drivers	NCPA has added to Section 4.A: "Risks specific to NCPA's generation facilities are tied to both residual fuel load (snags) from previous fires and potential soil instability caused by previous damage to area vegetation. These hazards are addressed by enhanced inspection techniques described in Section 5.F".
(K): Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high-fire threat district based on new information or changes to the environment.	Sec. 4.C. Changes to CPUC Fire Threat Map	Acceptable	
(L): A methodology for identifying and presenting enterprise wide safety risk and wildfire-related risk.	Sec. 4.B. Enterprise-wide Safety Risks.	Acceptable. Consider creating a section in the WMP that collects the enterprise wide safety elements described throughout the plan.	Attachment C has been added to provide an index of risks and their associated controls evaluations within the sections of the WMP.
(M): A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.	Sec. 7. Restoration of Service.	Acceptable	

2022			
2022 WMP Required Element per PUC Sec 8387(b)(2)	2022 NCPA WMP section	IE's Assessment of WMP based on PUC Sec. 8387 Requirements	Responsible Party Revisions
(N): A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following: (i) <b>Monitor and audit the implementation</b> of the wildfire mitigation plan. (ii) <b>Identify any deficiencies</b> in the wildfire mitigation plan or its implementation, and correct those deficiencies. (iii) <b>Monitor and audit the effectiveness</b> of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.	Sec. 7.C. Monitoring and Auditing the Plan. Sec. 7.D. Identifying and Correcting Deficiencies in the Plan. Sec. 7.E. Monitoring the Effectiveness of Inspections.	Acceptable	Updated: NCPA currently conducts ride-alongs with both Cal-Fire staff and internal NCPA staff.



## Attachment B: WSAB Guidance Recommendations Chart

WSAB 2022 WMP Guidance Recommendations	2022 NCPA WMP section	2022		
		IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
the Board recommended use of an upfront template containing key information about a utility's service area, including size, number of customers, type of customers, basic topography and weather data, asset mix (in terms of underground versus overhead lines), and interaction with High Fire Threat Districts (HFTD) and Public Safety Power Shutoffs (PSPS).	Section 1	Fully completed.	n/a	Complete
An index that showed where each of the statutory requirements were addressed in the WMP	N/A	Add index table to WMP in suggested location	See Attachment A	Complete
The WSAB is encouraging POU's to <u>reevaluate</u> their WMP objectives to take a broader approach beyond the typical minimizing sources of ignition and improving resiliency of the grid.	N/A	The NCPA's describes the typical objectives of minimizing ignitions and improving resiliency of the grid in their WMP.	See Attachment B	Complete
Describe the vegetation management practices and evaluate their impact on reducing wildfire related risk, as well as the ecological impact of the treatment options chosen	Section 5	The WMP provides a general overview of the NCPA's program. The details the WSAB is looking for are found in the TVMP plan.	See Attachment B	Complete

WSAB 2022 WMP Guidance Recommendations	2022 NCPA WMP section	2022		
		IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
Information about the installation of and use of situational awareness technologies to better understand wildfire risk drivers, particularly through collaborative activities and shared data.	N/A	There is no description in the WMP about the installation or use of situational awareness technology in NCPA's service territory.	See Attachment B	Complete
Information about facilities that would not be directly subject to the protocols of the CPUC's G.O. 95 due to their construction prior to the G.O. first being adopted.	Section 5	The WMP does not specifically identify facilities that are not subject to GO 95. NCPA applies wildfire prevention strategies to all their assets in high fire threat areas	See Attachment B	Complete
The WSAB would also like information about any circumstances where the G.O. 95 standards are not followed, and what replaces them and why.	Section 5	NCPA vegetation management program follows the stricter CAL FIRE guidelines for vegetation maintenance along the interconnects between generation facilities.	See Attachment B	Complete
Are there design or construction issues related to the utility's specific topography or geographic location that the Board should be aware of?	N/A	Section 4 contains a general overview of risk drivers present but no specific terrain or location issues are discussed.	See Attachment B	Complete
How will the utility address risks associated with facilities requiring power that about a Tier 2 or Tier 3 HFTD?	N/A	Not specifically addressed in the WMP	See Attachment B	Complete

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2022				
WSAB 2022 WMP Guidance Recommendations	2022 NCPA WMP section	IE's Initial Assessment of WMP based on WSAB Guidance Recommendations	Responsible Party - revisions	IE's 2nd Assessment of WMP
How does the utility assess its risks associated with system design and construction?	Section 4 & 5	The WMP has a general overview of how NCPA evaluates its assets based on the identified wildfire risk drivers.	See Attachment B	Complete
In what areas does the utility consider going above and beyond G.O. 95 or other General Order standards related to design and construction?	Section 5	In the Facility Maintenance Program of section 5 the WMP describes the upgrades under consideration to the tie-in and transmission	See Attachment B	Complete
WMP Metrics measure something that is helpful for progress when met as expected, and when not meeting the metric creates tension for improvement.	Section 7	The WMP uses the basic metrics of new ignitions and wires down. These metrics are appropriate to NCPA's service territory. It is recommended that NCPA choose a new metric or replace one of the existing metrics that shows the utility's progress toward reducing wildfire risk.	See Attachment B	Complete
the WSAB requested that WMPs include a small amount of additional context information regarding public input and approval processes for each utility.	Section 1	The WMP includes a short description of who approves the plan and that the plan is open for public review. A description of the approval process is not included in this WMP.	See Attachment B	Complete

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## REVISION HISTORY

*Version 1.0 - NCPA Commission approved on December 5, 2019 per Resolution 19-100*

*Version 1.1 – NCPA Commission approved on May 29, 2020 per Resolution 20-43. This WMP includes the qualified Independent Evaluators (IE) report in Appendix 2.*

*Version 1.2 – NCPA Commission approved on May 27, 2021 per Resolution 21-56. This WMP includes the qualified Independent Evaluators (IE) report in Appendix 3.*

*Version 1.3 – NCPA Commission approved on May XX, 2022 per Resolution 22-XX. This WMP includes the qualified Independent Evaluators (IE) report in Appendix 4.*

## ATTACHMENT A - PUC 8387 (B) REQUIREMENTS TABLE

Attachment A: Index of Required Element Location in WMP

2022 WMP Required Element per PUC Sec 8387(b)(2)	2022 NCPA WMP section
(A): An accounting of the <b>responsibilities of persons responsible</b> for executing the plan.	3.B., 3.C.
(B): The <b>objectives</b> of the wildfire mitigation plan.	1.B.
(C): A <b>description of the preventive strategies and programs</b> to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical <b>lines and equipment</b> causing catastrophic wildfires, including consideration of dynamic <b>climate change</b> risks.	5.A., 5.B., 5.C.
(D): A <b>description of the metrics</b> the local publicly owned electric utility or electrical cooperative plans to use to <b>evaluate the wildfire mitigation plan's performance</b> and the assumptions that underlie the use of those metrics.	7.A.
(E): A discussion of how the application of <b>previously identified metrics</b> to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	7.B.
(F): <b>Protocols for disabling reclosers</b> and deenergizing portions of the electrical distribution system that consider the <b>associated impacts</b> on public safety, as well as protocols related to <b>mitigating the public safety impacts</b> of those protocols, including impacts on critical first responders and on health and communication infrastructure.	N/A – NCPA does not own or use automatic reclosers on its 230 kV lines (5.H.)
(G): Appropriate and feasible <b>procedures for notifying a customer</b> who may be impacted by the deenergizing of electrical lines. The procedures shall direct notification to all public safety offices, critical first responders, health care facilities, and operators of telecommunications infrastructure with premises within the footprint of potential deenergization for a given event.	5.J.2.

(H): Plans for <b>vegetation management</b> .	5.E.
(I): Plans for <b>inspections</b> of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	7.E.
(J): A <b>list that identifies, describes, and prioritizes all wildfire risks, and drivers</b> for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following: (i) <b>Risks and risk drivers associated with design, construction, operation, and maintenance</b> of the local publicly owned electric utility's or electrical cooperative's equipment and facilities. (ii) Particular <b>risks and risk drivers associated with topographic and climatological risk factors</b> throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.	(J): 4 (i): 4.B. (ii): 4.A.
(K): <b>Identification of any geographic area</b> in the local publicly owned electric utility's or electrical cooperative's service territory that is a <b>higher wildfire threat</b> than is identified in a commission fire threat map, and identification of where the commission should expand a high-fire threat district based on new information or changes to the environment.	N/A – At this time, NCPA does not identify any needed changes to the current boundaries as identified in current maps included in Appendix 1 – Fire Risk Assessment Maps.
(L): A <b>methodology for identifying and presenting enterprise wide safety risk</b> and wildfire-related risk.	4.B.
(M): A statement of <b>how the local publicly owned electric utility or electrical cooperative will restore service</b> after a wildfire.	7.
(N): A <b>description of the processes</b> and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following: (i) <b>Monitor and audit the implementation</b> of the wildfire mitigation plan. (ii) <b>Identify any deficiencies</b> in the wildfire mitigation plan or its implementation and correct those deficiencies. (iii) <b>Monitor and audit the effectiveness</b> of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.	(i): 7.C. (ii): 7.D. (iii): 7.E



## ATTACHMENT B – WSAB RECOMMENDED ELEMENTS TABLE

Table 2: Index of WSAB Recommended Element Location in WMP

2022 WSAB Recommended Elements	2022 NCPA WMP section
(A): The WSAB has requested that public owned utilities include a table that describes each of the PUC requirements and where each requirement can be found in the WMP. <b>This table should be incorporated into the WMP as Attachment A.</b>	The table describing how each of the PUC requirements have been addressed by NCPA's WMP has been added as Attachment A
(B):The WSAB has requested that publicly-owned utilities re-evaluate their general WMP objectives to take on a broader approach that goes beyond minimizing ignitions. <b>It is recommended that NCPA re-evaluate their objectives for the following strategies: objectives that minimize the risk of fire spread or intensity and objectives that allow NCPA to restore services/return to full capacity after a wildfire spreads impacts their assets.</b>	NCPA has evaluated and updated its strategies in section 5.A. of the WMP to address methods of minimizing the risk of fire spread. The strategies for restoration of services contained in section 5.H. of the WMP have been evaluated and will not be revised at this time based on the minimal impact to customers related to potentially delayed restoration of service.
(C): The WSAB has requested that future WMP's contain a description of the public input and approval process for the WMP. <b>It is recommended that NCPA add a small paragraph describing the utility's public approval process for their plan and where the WMP is posted for review by the public.</b>	A paragraph describing NCPA's public document accessibility, review and approval process, and method for incorporation of public comments into the WMP plan has been added to section 3.B. of the WMP.
(D): The board has recommended that public owned utilities re-evaluate their metrics to determine if they are useful for informing them on the effectiveness of the plan. <b>It is recommended that NCPA consider adding a new metric or replacing an existing metric with a performance-based metric like equipment inspections or trees trimmed as well as another leading metric such as number of vegetation contacts with wires discovered or equipment faults detected.</b>	NCPA has considered the recommendation to consider adding a new metric or replacing an existing metric with a performance-based metric. A residual risk is related to the potential for soil instability in areas previously affected by wildfire to result in a "fall in" by trees of sufficient height to contact Distribution lines. Section 7.A. has been updated to add this new metric.

<p>(E): The WSAB recommends that the Independent Evaluators report contain a comparison of the utility’s operations and equipment to relevant industry standards. <b>It is requested that NCPA provide a list of specific operational practices and equipment that NCPA employs to reduce the risk of wildfire within the service territory.</b></p>	<p>NCPA has addressed specific equipment and operational practices to reduce the risk of wildfire within the service territory in section 5.A.of the WMP.</p>
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## ATTACHMENT C – WILDFIRE RISK ELEMENTS AND CONTROLS

*Table 3 – Index of Wildfire Risks and Controls Evaluations within the WMP*

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Identify and Assess Wildfire Event Elements		Fuel	Ignition	Design Controls	Implement Controls	Evaluate Controls (WMP Section)
Tree contact or downed conductor during wind centered events	Dead limbs or trees contacting Distribution lines		X	Design and maintain Distribution and Transmission facilities in accordance with PG&E approved practices for wildland fire prevention. De-energize facilities when needed during high wind/red flag conditions.	PG&E Greenbook Design Standards, Public Safety Power Shutoff (PSS) documentation.	3.C. Wildfire Response, Communication and Recovery and 5.A.(4) Asset documentation.
		X	X	Identify and remove dead and dying trees or limbs from area adjacent to lines.		
		X	X	Identify and remove dead and dying trees from area adjacent to lines.		
		X	X	Identify and remove encroaching trees. De-energize facilities upon CAL FIRE request.		
		X	X	Identify and remove dead and dying trees or limbs from area adjacent to lines.		
	Fall-in trees resulting from landslides or trunk failures		X	Routine inspections and non-routine incidental observation.	PLPFFG, Sections 12-19.	5.E. Vegetation Management
Fuses or conductors dropping molten metal	Un timely fire department response	X		Emergency Action Plan (EAP) Training and Coordination with local agencies	PG&E Greenbook Design Standards, PSFS, PM-201 & GEO-646 Annual tabletop EAP reviews with USFS, CAL FIRE, CHP, Calpine, BLM, LACOSAN, Calaveras, Tuolumne & Alpine County Sheriffs, CA Dept. of Parks & Recreation	5.D. Tree Mortality
	Undetected equipment damage or failures	X		Use of non-expulsion type fuses in High Fire Risk Areas (HFRA), protection of Transmission and Distribution circuits in accordance with design standards, patrolling of lines prior to re-energization.	Regular patrols of Distribution lines, NERC FAC-003 Inspections in accordance with (IAW) NCPA procedure GM-305 EAP training for all field personnel, Facility specific Emergency Response Plans (ERP)	5.I. De-Energization
Uncoordinated wildfire response	Staff unaware of wildfire risk or response	X		Personnel training and notification to Dispatch center for coordinated response.	EAP training for all field personnel, Monthly safety meetings Mutual aid agreements with member utilities, California Utilities Emergency Association (CUEA) and American Public Power Association (APPA) for Distribution assets, WAPA agreement for maintenance and repair of Transmission assets	5.B. Potential Climate Change Effects
	Extended timeframe for fire event recovery	X		Personnel training and seasonal awareness reminders.	EAP training for all field personnel, Monthly safety meetings Mutual aid agreements with member utilities, California Utilities Emergency Association (CUEA) and American Public Power Association (APPA) for Distribution assets, WAPA agreement for maintenance and repair of Transmission assets	5.C. Potential Climate Change Risk Management Practices
Extended drought conditions; Underbrush damage from fires; Vegetation stress or species changes	Lightening strikes	X		Leverage additional line personnel and resources via mutual aid agreements.	Routine patrols of Distribution lines, NERC FAC-003 Inspections in accordance with (IAW) NCPA procedure GM-305 EAP Coordination with CAL FIRE for wildfire ignition	5.B. Potential Climate Change Effects
	Vehicles operating in dry vegetation areas	X		Awareness and response.	Monthly plant safety meetings	3.F. Mutual Aid Agreements
Vegetation clearing operations	Hot Work	X		Awareness and periodic personnel training.	TUMP and PLPFFG	5.C. Potential Climate Change Risk Management Practices
	Undetected fire risk change	X		Awareness and periodic personnel training.	GS-111 (Hot Work Procedure) and GS-116 (Welding Safety Procedure)	5.D. Tree Mortality
Protective device delayed clearing	Undetected fire risk change	X		Awareness and periodic personnel training.	Annual review of Wildfire Management Plan including Fire Hazard Zone classifications	5.E. Vegetation Management Program
	Protective device delayed clearing	X		Awareness and periodic personnel training.	Annual review of Wildfire Management Plan including Fire Hazard Zone classifications	NCPA GS-304 Protection System Maintenance and Testing Program



# Commission Staff Report

**COMMISSION MEETING DATE:** 5/26/2022

**SUBJECT:** Parker Landscape Development, Inc. – First Amendment to the Multi-Task General Services Agreement for continued use at NCPA all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

**AGENDA CATEGORY:** Consent

<b>FROM:</b>	Monty Hanks Chief Financial Officer/Assistant General Manager	<b>METHOD OF SELECTION:</b>  N/A
<b>Division:</b>	Administrative Services	<i>If other, please describe:</i>
<b>Department:</b>	General Services	

<b>IMPACTED MEMBERS:</b>		
All Members <input checked="" type="checkbox"/>	City of Lodi <input type="checkbox"/>	City of Shasta Lake <input type="checkbox"/>
Alameda Municipal Power <input type="checkbox"/>	City of Lompoc <input type="checkbox"/>	City of Ukiah <input type="checkbox"/>
San Francisco Bay Area Rapid Transit <input type="checkbox"/>	City of Palo Alto <input type="checkbox"/>	Plumas-Sierra REC <input type="checkbox"/>
City of Biggs <input type="checkbox"/>	City of Redding <input type="checkbox"/>	Port of Oakland <input type="checkbox"/>
City of Gridley <input type="checkbox"/>	City of Roseville <input type="checkbox"/>	Truckee Donner PUD <input type="checkbox"/>
City of Healdsburg <input type="checkbox"/>	City of Santa Clara <input type="checkbox"/>	Other <input type="checkbox"/>
<i>If other, please specify</i>		
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**RECOMMENDATION:**

**SR:** xxx:22

Recommending the Northern California Power Agency (NCPA) Commission approve resolution 22-XX authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Parker Landscape Development, Inc. for professional commercial landscape services, tree care, and special projects increasing the not to exceed amount to \$300,000 for continued use at NCPA all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

#### **BACKGROUND:**

Parker Landscape Development, Inc is a commercial landscape company with over 40 years of experience in landscaping design, construction, and maintenance. Parker Landscaping is responsive and works well with the Agency in providing landscape services, maintenance recommendations, resolving issues, and water-saving recommendations.

On April 3, 2018, NCPA entered into a five-year Multi-Task General Services Agreement with Parker Landscape Development, for an amount not to exceed \$200,000. During the agreement term, there were several unforeseen maintenance events, including; a break in the main irrigation line, irrigation repairs from the fence project, tree and curb removal for the electric vehicle charging stations, and irrigation line repair from the fiber cable installation. Due to these unplanned events, an increase to the contract is required for continued services through the term of the agreement.

#### **FISCAL IMPACT:**

Upon execution, the total not-to-exceed amount of the agreement will increase from \$200,000 to \$300,000 with no changes to the expiration date of April 3, 2023. No budget augmentation is necessary as the services are captured within the approved General Services budget for FY22 & FY23.

#### **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.

Facilities Committee Meeting, Scheduled May 4, 2022  
Lodi Energy Center Project Participant Committee, Scheduled May 9, 2022

**AFTER FACILITIES APPROVAL:** On May 4, 2022, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.



AFTER LEC PPC APPROVAL: On May 9, 2022, the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD  
General Manager

Attachments:

- Resolution 22-XX
- First Amendment to the General Services Agreement between The Northern California Power Agency and Parker Landscape Development, Inc.
- Multi-Task General Services Agreement with Parker Landscape Development, Inc.

## RESOLUTION 22-XX

### RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A FIRST AMENDMENT TO THE MULTI-TASK GENERAL SERVICES AGREEMENT WITH PARKER LANDSCAPE DEVELOPMENT, INC.

(reference Staff Report #xxx:22)

WHEREAS, Northern California Power Agency (NCPA) and Parker Landscape Development, Inc entered into a five-year Multi-Task General Services Agreement effective April 3, 2018, for professional commercial landscape services, tree care, and special projects; for use at any facilities owned and/or operated by NCPA, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, the current agreement is for a not to exceed amount of \$200,000, expiring April 3, 2023; and

WHEREAS, there were several unforeseen maintenance events, including; a break in the main irrigation line, irrigation repairs from the fence project, tree and curb removal for the electric vehicle charging stations, and irrigation line repair from the fiber cable installation; and

WHEREAS, the Agency now desires to amend the Agreement to increase the not to exceed amount of \$200,000 to a not to exceed amount of \$300,000 for continued services through the current term expiring April 3, 2023; and

WHEREAS, both parties have agreed to modify the Agreement as set forth above; 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 adopts to Approve Resolution 22-XX authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Parker Landscape Development, Inc. for professional commercial landscape services, tree care, and special projects increasing the not to exceed amount to \$300,000 for continued use at NCPA all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

PASSED, ADOPTED and APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2022, by the following vote on roll call:

	<u>Vote</u>	<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


\_\_\_\_\_  
DAVID HAGELE  
CHAIR

ATTEST:

\_\_\_\_\_  
CARY A. PADGETT  
ASSISTANT SECRETARY



**FIRST AMENDMENT TO GENERAL SERVICES AGREEMENT BETWEEN  
THE NORTHERN CALIFORNIA POWER AGENCY AND PARKER LANDSCAPE  
DEVELOPMENT, INC.**

This First Amendment ("Amendment") to General Services Agreement is entered into by and between the Northern California Power Agency ("Agency") and Parker Landscape Development, Inc. ("Contractor") (collectively referred to as "the Parties") as of \_\_\_\_\_, 2022.

WHEREAS, the Parties entered into a General Services Agreement dated effective April 3, 2018, (the "Agreement") for Contractor to provide professional commercial landscape services at any facilities owned or operated by Agency, NCPA Members, Southern California Public Power Authority (SCPPA) or SCPPA Members; and

WHEREAS, the Agency now desires to amend the Agreement to increase the total compensation authorized by the Agreement from a "NOT TO EXCEED" amount of \$200,000 to a 'NOT TO EXCEED' amount of \$300,000; 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. **Section 2—Compensation** of the Agreement is amended and restated to read as follows:

Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED THREE HUNDRED THOUSAND** dollars (\$300,000) 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.

The remainder of Section 2 of the Agreement is unchanged.

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

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

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

NORTHERN CALIFORNIA POWER AGENCY

PARKER LANDSCAPE DEVELOPMENT INC.

\_\_\_\_\_  
**RANDY S. HOWARD, General Manager**

\_\_\_\_\_  
**RICK CORREA, Chief Operating Officer**

Attest:

\_\_\_\_\_  
Assistant Secretary of the Commission

Approved as to Form:

\_\_\_\_\_  
Jane E. Luckhardt, General Counsel

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**MULTI-TASK  
GENERAL SERVICES AGREEMENT BETWEEN  
THE NORTHERN CALIFORNIA POWER AGENCY AND  
PARKER LANDSCAPE DEVELOPMENT, 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 Parker Landscape Development, Inc., a corporation with its office located at 6011 Franklin Boulevard, Sacramento, CA 95824 ("Contractor") (together sometimes referred to as the "Parties") as of APRIL 3, 2018 ("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 Term of Agreement.** 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 Assignment of Personnel.** 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 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.

**Section 2. COMPENSATION.** Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** two hundred thousand dollars (\$200,000) 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 Invoices.** 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  
[AcctsPayable@ncpa.com](mailto:AcctsPayable@ncpa.com)

**2.2 Monthly Payment.** 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 Authorization to Perform Work.** 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 Timing for Submittal of Final Invoice.** 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 Workers' Compensation.** 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 Commercial General Insurance.** 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 \$1,000,000 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 \$1,000,000 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 General Liability/Umbrella Insurance.** 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 All Policies Requirements.**

**4.5.1 Verification of coverage.** 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 Notice of Reduction in or Cancellation of Coverage.** 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 Higher Limits.** 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, Agency shall have the right to require Contractor to provide the certificates of insurance and/or 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.

**4.6 Waiver of Subrogation.** 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. 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.

**4.7 Contractor's Obligation.** 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 Effect of Insurance.** 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 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.

## **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 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 Contractor Not Agent.** 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 Certification as to California Energy Commission.** If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit C.
- 6.5 Certification as to California Energy Commission Regarding Hazardous Materials Transport Vendors.** If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit D.
- 6.6 Maintenance Labor Agreement.** 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 **Governing Law.** The laws of the State of California shall govern this Agreement.
- 7.2 **Compliance with Applicable Laws.** Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- 7.3 **Licenses and Permits.** 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 **Monitoring by DIR.** The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- 7.5 **Registration with DIR.** 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 Termination.** 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 Amendments.** 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 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 Contractor's Books and Records.** 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 Confidential Information.** 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 Handling of Confidential Information.** 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 Use of Agency Equipment.** 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.** 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 Deficiencies in Work.** 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 Assignment of Warranties.** 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 Attorneys' Fees.** 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 Venue.** 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 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.
- 13.5 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.
- 13.6 Conflict of Interest.** 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 Contract Administrator.** This Agreement shall be administered by Monty Hanks, 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:

Rick Correa  
Chief Operating Officer  
Parker Landscape Development, Inc.  
6011 Franklin Boulevard  
Sacramento, CA 95824

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:

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 Alternative Dispute Resolution.** 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 Controlling Provisions.** 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 Counterparts.** 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 Construction of Agreement.** 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 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. 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

PARKER LANDSCAPE DEVELOPMENT INC.

Date 4/3/18

Date 3.19.18

  
**RANDY S. HOWARD, General Manager**

  
**RICK CORREA, Chief Operating Officer**

Attest:

  
Assistant Secretary of the Commission

Approved as to Form:

  
General Counsel

## **EXHIBIT A**

### **SCOPE OF WORK**

PARKER LANDSCAPE DEVELOPMENT, INC., ("Contractor") shall perform the following services, not including work requiring bidding under the California Public Contract Code, as requested by the Northern California Power Agency ("Agency") at all NCPA locations and Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members, including, without limitation: including but not limited to the following:

#### **Professional Commercial Landscape Services**

- **Landscape Maintenance**
  - Mowing
  - Edging
  - Blowing
  - Fertilizing
  - Weed & Pest Control
  - Irrigation
  - Shrubs & Vines
  - Planter Beds
  - Ground Cover
  - Seasonal Plantings
  - System Checks
- **Tree Care**
  - Pruning
  - Trimming
  - Staking
- **Special Projects**
  - Aeration
  - Reseeding
  - Field Mowing
  - Renovations
  - Irrigation Installation
  - Pavers, Blocks, Rocks & Border Installation
  - 24/7/365 Emergency Services

## **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:

- By proposal and purchase order on an annual basis for Landscape Maintenance
- By proposal and purchase orders on a case by case basis for special projects

Or

- \$36 per hour for general labor
- \$50 per hour for an irrigation technician
- \$85 per hour for emergency services during non-business hours

Pricing for services to be performed at NCPA Member or SCPA 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**

I,

Dawnielle Meier

(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

Parker Landscape Dev. 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 19<sup>th</sup> day of March, 20 18.

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: 3.19.18

Name of Employer

Parker Landscape Dev.

Dawnielle Maier  
(Authorized Officer & Title)

V. President  
6011 Franklin Bl SAC, CA  
(Address) 95824



# Commission Staff Report

**COMMISSION MEETING DATE:** May 26, 2022

**SUBJECT:** TPR Enterprises, LLC, dba EcoEngineers – Five Year Multi-Task Consulting Services Agreement for Low Carbon Fuel Standard Fuel Pathway Application, Validation, and Verification Consulting Services; Applicable to the following: Northern California Power Agency (NCPA), NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

**AGENDA CATEGORY:** Consent

<b>FROM:</b>	Jane Cirrincione	<b>METHOD OF SELECTION:</b>
	Assistant General Manager	<i>Competitive Pricing Process</i>
<b>Division:</b>	Legislative & Regulatory Affairs	<i>If other, please describe:</i>
<b>Department:</b>	Legislative & Regulatory	

<b>IMPACTED MEMBERS:</b>			
All Members	<input checked="" type="checkbox"/>	City of Lodi <input type="checkbox"/>	City of Shasta Lake <input type="checkbox"/>
Alameda Municipal Power	<input type="checkbox"/>	City of Lompoc <input type="checkbox"/>	City of Ukiah <input type="checkbox"/>
San Francisco Bay Area Rapid Transit	<input type="checkbox"/>	City of Palo Alto <input type="checkbox"/>	Plumas-Sierra REC <input type="checkbox"/>
City of Biggs	<input type="checkbox"/>	City of Redding <input type="checkbox"/>	Port of Oakland <input type="checkbox"/>
City of Gridley	<input type="checkbox"/>	City of Roseville <input type="checkbox"/>	Truckee Donner PUD <input type="checkbox"/>
City of Healdsburg	<input type="checkbox"/>	City of Santa Clara <input type="checkbox"/>	Other <input type="checkbox"/>
<i>If other, please specify</i>			
<hr/>			
<hr/>			

## **RECOMMENDATION:**

Approve Resolution 22-XX authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with TPR Enterprises, LLC, dba EcoEngineers ("EcoEngineers") for Low Carbon Fuel Standard fuel pathway application, validation, and verification consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$350,000 over five years, for use by NCPA, NCPA Members, SCPPA, and SCPPA Members.

## **BACKGROUND:**

NCPA and 12 NCPA Members are currently registered reporting entities for the California Air Resources Board's (CARB's) Low Carbon Fuel Standard (LCFS) program. The LCFS program is designed to decrease the carbon intensity of California's transportation fuel pool and incentivize low-carbon and renewable fuel alternatives, including electricity. NCPA and participating Members are able to generate LCFS credits by reporting the use of alternative fuels, including electric vehicle (EV) charging at owned EV chargers, and NCPA Members with residential customers generate LCFS credits associated with an estimate of residential EV charging. LCFS credits can then be sold and the proceeds used to fund programs and projects that support transportation electrification.

Participants in the LCFS program can increase the number of LCFS credits generated by creating fuel pathways with a lower carbon-intensity (CI) than average grid power in California, or by using a liquid fuel cleaner than gasoline or diesel. NCPA and Members have created, or are considering creating, fuel pathways for fuels such as compressed natural gas (CNG), renewable natural gas (RNG), and large hydroelectric power. CARB requires applications for certain types of fuel pathways to include a life-cycle analysis and modeling of carbon-intensity. For approved fuel pathways, CARB requires certain fuel types to undergo independent validation and verification processes.

NCPA issued a Request for Proposal (RFP) LR 2105 on December 17, 2021 to solicit proposals from qualified consultants providing LCFS fuel pathway application, validation, and verification consulting services. NCPA created a review group for the RFP consisting of staff from NCPA and NCPA Member entities, and this review group evaluated and scored timely proposals submitted to the RFP. Seven vendors responded to the RFP by the deadline of January 18, 2022. Based on the scoring review group's evaluation, two vendors were selected to provide fuel pathway application, validation, and verification consulting services, and one additional vendor was selected to provide only fuel pathway validation and verification consulting services.

The review group selected EcoEngineers based on its experience, work plan, and costs. NCPA is also entering into agreements with SCS Engineers and Tetra Tech, Inc for similar services.

## **FISCAL IMPACT:**

Upon execution, the total cost of the agreement is not to exceed \$350,000 over five years. This enabling agreement does not commit NCPA to any expenditure of funds. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

### **SELECTION PROCESS:**

Three vendors were selected as a result of a RFP process in accordance with NCPA's procurement policies and procedures. An RFP was posted on NCPA's website from December 17, 2021 through January 18, 2022. Seven responses were received and evaluated based upon the following criteria: 1) Quality and completeness of proposal; 2) Knowledge, experience and skills to provide the requested services; 3) Experience of staff to be assigned to the project, based on prior engagements of similar scope and complexity; 4) Competitive rates for the requested services; 5) Demonstrated strong project management; and 6) Customer references. The selection process was completed by NCPA along with representatives for the City of Palo Alto Utilities and Roseville Electric Utility.

### **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 Facilities Committee review and approval during its regularly scheduled meeting on May 4, 2022.

Respectfully submitted,

RANDY S. HOWARD  
General Manager

#### **Attachments (2):**

- Resolution 22-XX
- Multi-Task Consulting Services Agreement with TPR Enterprises, LLC, dba EcoEngineers

**RESOLUTION 22-XX**

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY  
APPROVING A MULTI-TASK CONSULTING SERVICES AGREEMENT WITH  
TPR ENTERPRISES, LLC. DBA ECOENGINEERS**

**(reference Staff Report #XXX:22)**

WHEREAS, fuel pathway application, validation, and verification services may be required by the Northern California Power Agency (NCPA) and NCPA Members as part of their participation in the Low Carbon Fuel Standard program; and

WHEREAS, three vendors to provide these services were selected as a result of a Request for Proposal process in accordance with NCPA's procurement policies and procedures; and

WHEREAS, TPR Enterprises, LLC, dba EcoEngineers is an experienced and highly-qualified provider of these services; 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 a Multi-Task Consulting Services Agreement, with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$350,000 over five years, for use by NCPA, NCPA Members, SCPPA, and SCPPA Members.

PASSED, ADOPTED and APPROVED this \_\_\_\_ day of \_\_\_\_\_, 2022 by the following vote on roll call:

	<u>Vote</u>	<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	_____	_____	_____

\_\_\_\_\_  
DAVID HAGELE  
CHAIR

ATTEST:

\_\_\_\_\_  
CARY A. PADGETT  
ASSISTANT SECRETARY





**MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN  
THE NORTHERN CALIFORNIA POWER AGENCY AND  
TPR ENTERPRISES, LLC, DOING BUSINESS AS ECOENGINEERS**

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 TPR Enterprises, LLC, d/b/a EcoEngineers, an Iowa limited liability company with its office located at 909 Locust Street, Suite 202, Des Moines, IA 50309 ("Consultant") (together sometimes referred to as the "Parties") as of \_\_\_\_\_, 2022 ("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 Term of Agreement.** 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) years 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 Assignment of Personnel.** 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 Services Provided.** 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 Request for Services.** 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.

**Section 2. COMPENSATION.** Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED** Three Hundred Fifty Thousand dollars (\$350,000.00) 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 Invoices.** 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  
[AcctsPayable@ncpa.com](mailto:AcctsPayable@ncpa.com)

**2.2 Monthly Payment.** 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 Payment of Taxes.** Consultant is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.

**2.4 Authorization to Perform Services.** 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 Timing for Submittal of Final Invoice.** 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 Workers' Compensation.** 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 Commercial General and Automobile Liability Insurance.**

**4.2.1 Commercial General Insurance.** 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 Automobile Liability.** 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 General Liability/Umbrella Insurance.** 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 All Policies Requirements.**

**4.4.1 Verification of coverage.** 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 Higher Limits.** 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 Waiver of Subrogation.** 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 Consultant's Obligation.** 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 ensures 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 Effect of Insurance.** 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 Scope.** Consultant 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 reasonable 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 Consultant, 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.

## **Section 6. STATUS OF CONSULTANT.**

- 6.1 Independent Contractor.** 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 Consultant Not Agent.** 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 Assignment and Subcontracting.** 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.

## **Section 7. LEGAL REQUIREMENTS.**

- 7.1 Governing Law.** The laws of the State of California shall govern this Agreement.
- 7.2 Compliance with Applicable Laws.** Consultant and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- 7.3 Licenses and Permits.** 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 Termination.** 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 Amendments.** The Parties may amend this Agreement only by a writing signed by all 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 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 upon 10 days' notice and opportunity to cure;
- 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.** Except for the Pre-Existing Materials (defined below), 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. Furthermore, any Agency Confidential Information as defined in Section 9.4.1 and any Consultant derivative work based upon Agency's Confidential Information shall be maintained by Consultant in confidence, secured physically and electronically from disclosure and destroyed upon completion of any task under this Agreement pursuant to Section 9.4.4. Agency acknowledges that the deliverables provided to Agency hereunder (the "Deliverables") may require certain intellectual property and materials that Consultant or others previously or independently developed ("Pre-existing Materials") and Agency will not acquire any ownership interest whatsoever in such Pre-Existing Materials. Notwithstanding anything to the contrary herein, to the extent that any of the Consultant's Pre-existing Materials are contained in the Deliverables, the Consultant retains ownership of such Pre-existing Materials and hereby grants to the Agency (and its affiliates) an irrevocable, worldwide, royalty-free license to use, publish, and prepare derivative works based upon such Pre-existing Materials and derivative works thereof.
- 9.2 Consultant's Books and Records.** 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 Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, , or physical security or critical energy/electric infrastructure information (CEII), 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, trade secret information, physical security and/or CEII. 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, or (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof.

**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 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, 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 Handling of Confidential Information.** 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 in files of Receiving Party's representatives only where such copies are necessary to comply with applicable law or where an electronic archival copy is automatically generated by Consultant's server system (and the archival is not generally accessible by Consultant personnel). 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. MISCELLANEOUS PROVISIONS.**

- 10.1 Attorneys' Fees.** 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 Venue.** 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 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.
- 10.4 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.
- 10.5 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.

- 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 Contract Administrator.** This Agreement shall be administered by Jane Cirrincione, 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.

- 10.8 Notices.** Any written notice to Consultant shall be sent to:

TPR Enterprises, LLC dba EcoEngineers  
Shasi Menon  
CEO  
909 Locust Street, Suite 202  
Des Moines, IA 50309

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 Alternative Dispute Resolution.** 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 Controlling Provisions.** 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 Counterparts.** 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 Construction of Agreement.** 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 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. 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.
- 10.15 Conflicts of Interest.** Consultant shall abide by Mandatory Rotation rules per section 95500 (g) which may require termination of services as determined by the conflict-of-interest evaluation completed by Consultant and the allowable service period specified by the California Air Resources Board staff. Consultant shall not be subject to any penalties or costs under this Agreement if Consultant must terminate services for a conflict of interest.

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

NORTHERN CALIFORNIA POWER AGENCY

TPR ENTERPRISES, LLC, D/B/A  
ECOENGINEERS

Date \_\_\_\_\_

Date \_\_\_\_\_

\_\_\_\_\_  
RANDY S. HOWARD, GENERAL MANAGER

\_\_\_\_\_  
SHASHI MENON, CEO

Attest:

\_\_\_\_\_  
Assistant Secretary of the Commission

Approved as to Form:

\_\_\_\_\_  
Jane E. Luckhardt, General Counsel

## EXHIBIT A

### SCOPE OF SERVICES

EcoEngineers ("Consultant") shall provide the following services, as requested by the Northern California Power Agency ("Agency"), for any facilities owned or operated by Agency, its Members, Southern California Public Power Authority ("SCPPA"), or SCPPA Members. Services include:

#### I. LCFS Tier 2 Fuel Pathway Consultation, Analysis, and/or Application Submittal

- Task 1: Fuel and/or Generating Facility Information and Data Collection. Consultant will identify and compile information and data for the 24-month duration necessary to complete a calculation of carbon intensity (CI) and life cycle analysis (LCA).
- Task 2: Lifecycle Analysis Modeling. Consultant will utilize data supplied by Agency/Member and calculate the CI using CARB's latest CA GREET model inputs, modifying the CA GREET model as necessary. Consultant will take detailed notes of what cells and formulas are modified within CA GREET for each pathway. Consultant will modify the CA GREET model to present the results in an easy to review format to simplify and expedite the approval from CARB. Consultant will breakdown the greenhouse gas (GHG) emissions from each step of the process, consistent with the CA GREET model. Consultant may need to collaborate with Agency, Member(s), and/or CARB on the modeling approach.
- Task 3: Life Cycle Analysis (LCA) Technical Report. For Tier 2 pathways, Consultant will prepare a technical LCA report for submission to and approval by CARB. The technical report will detail the information and data previously gathered and analyzed, and the CI results for each stage of the process. The Consultant will prepare the system boundary diagram. The report will detail the data collected, resulting CA GREET model inputs, modified cell locations within the model, and results for each of the following processes described above. The results for each process will be in gCO<sub>2</sub>e/MJ. The summary fuel pathway results will aggregate the results of each of the processes into a full fuel CO<sub>2</sub>e/MJ.

Consultant will participate in conference calls with CARB and Agency/Member to discuss the technical report and modified CA GREET model. Consultant will make the necessary changes to the CA GREET model and/or technical report based on CARB's comments, and will produce a final LCA report. The technical LCA report, with the final modified CA GREET model and supporting documents, will be attached to any Tier 2 applications submitted.

#### II. Independent Validation and/or Verification of LCFS Fuel Pathways

- Consultant will provide independent verification of fuel pathways applications and annual fuel pathway data reports, as requested by Agency and/or Members.
- Verification services must be performed by qualified and trained verifiers that are CARB-accredited.

- Consultant must not have a conflict of interest for verifying the reported data due to current or previous relationships with the Agency or Member requesting services.
- Consultant must follow the requirements of LCFS Regulation section 95501, which may include the following steps:
  - Submit a notice of validation or verification services to the Executive Officer.
  - Develop a validation or verification plan based on information from the fuel pathway applicant, pathway holder, or reporting entity, and the timing of verification services.
  - Meetings with Agency/Member to discuss the scope of the verification services, and to request any information and documents needed for the verification services.
  - Conduct required site visits for the fuel pathway.
  - Develop a sampling plan.
  - Conduct data checks, focused on the most uncertain data and on data with the largest contributions to GHG emissions and GHG emissions reductions (if applicable).
  - Identify and communicate correctable errors, as defined in section 95481(a), and document the source of any difference identified.
  - Verify data calculations to determine whether there is reasonable assurance that the application or report does not contain a material misstatement. The verification team must review the methods and factors used to develop the application or report for adherence to the requirements of section 95500-95501.
  - Log issues identified in the course of verification services that may affect determinations of material misstatement and nonconformance.
  - Assessments of material misstatements.
  - Validation or Verification statements, upon completion of verification services, and independent review.
  - A detailed validation or verification report.

### **III. Additional LCFS Fuel Pathway Consultation and Education Services.**

Additional services regarding LCFS fuel pathway consultation and education will be provided upon request and mutual agreement as to scope and pricing.

## EXHIBIT B

### COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all tasks, including hourly fees and expenses, shall not exceed \$350,000.00. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

#### I. LCFS Tier 2 Fuel Pathway Consultation, Analysis, and/or Application Submittal

The Tier 2 LCA consulting fixed-price option includes fuel pathway analysis, CA-GREET 3.0 calculator analysis, and up to 10 hours of consulting time to represent the NCPA/Member as a liaison to the California Air Resources Board.

FUEL TYPE	PATHWAY TYPE	TIER 1 PATHWAY APPLICATION (Estimated Hours)	TIER 2 LCA & PATHWAY APPLICATION (Estimated Hours)
RNG Dairy	One farm, one digester, one upgrading facility	N/A	<b>\$ 25,000</b> (75-85)
	Additional farm	N/A	<b>\$ 20,000</b> (65-75)
Landfill		<b>\$ 15,000</b> (45-50)	<b>\$ 20,000</b> (45-50)
Wastewater Treatment Plant		<b>\$ 15,000</b> (45-50)	<b>\$ 20,000</b> (45-50)
Hydrogen – SMR (biogas)	Default volumes via lookup table	N/A	<b>\$ 15,000</b> (45-50)
	User-defined process / energy inputs	N/A	<b>\$ 20,000</b> (65-70)
Hydrogen – Electrolysis	User-defined process / energy inputs	N/A	<b>\$ 20,000</b> (65-70)
Ethanol	Starch, cellulosic	<b>\$ 20,000</b> (65-70)	Varies depending on pathway complexity
Biodiesel		<b>\$ 20,000</b> (65-70)	Varies depending on pathway complexity

Optional add-ons to an LCA/Pathway application:

- Temporary pathway application is an additional \$3,500
- Preliminary CI Analysis is an additional \$13,000
- If NCPA elects for time & expenses pricing, the hourly rate for consulting services is \$350 per hour

#### II. Independent Validation and/or Verification of LCFS Fuel Pathways

- Travel to/from the site is billed as time & expense.

- The annual verification costs provided in this table assume multi-year task orders.
- 

FUEL TYPE	PATHWAY TYPE (SITE SPECIFIC INPUTS)	VALIDATION (Estimated Hours)		ANNUAL VERIFICATION (Estimated Hours)		
		Tier 1 Fuel Pathway Application	Tier 2 Fuel Pathway Application	Tier 1 Annual Fuel Pathway Report	Tier 2 Annual Fuel Pathway Report	Quarterly Fuel Transaction Report (Per Reporting Entity)
Renewable Natural Gas (RNG)	Dairy/Swine Manure AD (With one farm/digester and one upgrading facility)	\$ 24,000 (105-115)	\$28,000 (125-150)	\$22,000 (100-110)	\$26,000 (120-135)	\$ 15,000 - \$ 25,000 (50-115)
	* Intermediate Facility (additional farm/digester)	\$10,000 (35-45)	\$ 15,000 (60-70)	\$8,000 (30-40)	\$12,000 (45-55)	
	Organic Waste AD	\$22,000 (100-110)	\$ 25,000 (120-130)	\$ 20,000 (90-105)	\$ 22,500 (100-115)	
	Landfill/Wastewater Sludge AD	\$ 18,000 (65-75)	\$ 21,000 (95-110)	\$ 16,000 (60-70)	\$ 18,500 (70-80)	
	*LNG Plant (Joint Applicant)	\$ 15,000 (60-70)		\$ 12,500 (45-50)		
Hydrogen	Via Steam Methane Reforming (SMR) using NG or RNG <ul style="list-style-type: none"> <li>Default lookup table plus user-defined transportation distance</li> <li>User-defined process / energy inputs</li> </ul>	N/A	\$ 14,000 - \$ 22,000 (45-110)	N/A	\$ 12,000 - \$ 20,000 (40-100)	*For Non-Liquid Renewable Fuel Transaction only
	Via Electrolysis using California or Zero-CI electricity <ul style="list-style-type: none"> <li>Default lookup table plus user-defined transportation distance</li> <li>User defined process / energy inputs</li> </ul>	N/A	\$ 14,000 - \$ 20,000 (45-100)	N/A	\$ 12,000 - \$ 17,500 (40-80)	
Ethanol	<ul style="list-style-type: none"> <li>Corn Starch Ethanol</li> <li>Cellulosic Ethanol</li> <li>Multiple Co-products (Wet, Modified, Dry DG)</li> <li>Multiple Feedstocks (Corn, Sorghum)</li> </ul>	\$ 18,000 - \$27,500 (70-150)	\$ 22,500 - \$32,000 (90-180)	\$ 16,000 - \$24,000 (65-120)	\$ 18,500 - \$ 28,500 (70-155)	\$ 12,500 - \$ 22,500 (45-110)
	* Intermediate Facility (on site biogas project)	\$10,000 (35-45)	\$ 15,000 (60-70)	\$8,000 (30-40)	\$12,000 (45-55)	
Biodiesel and Renewable Diesel	<ul style="list-style-type: none"> <li>Feedstocks (Soy, DCO, Tallow, UCO)</li> <li>Specified Source Feedstock Review</li> <li>Co-products Type</li> <li>Domestic Vs Foreign Producer</li> </ul>	\$ 20,000 - \$48,000 (75-205)	\$ 24,500 - \$60,000 (65-250)	\$ 18,000 - \$42,000 (65-185)	\$ 22,500 - \$52,000 (80-225)	*For Liquid Renewable Fuel Transaction only
	* Intermediate Facility (e.g., Rendering facility)	\$8,000 (30-35)	\$ 10,000 (35-40)	\$8,000 (30-35)	\$ 10,000 (35-40)	

### III. Hourly fee schedule

DESCRIPTION / ROLE	UNIT	UNIT PRICE
<b>Consulting</b>		
Senior Regulatory Consultant – Team Lead Expertise	Hour	\$350
Senior Regulatory Consultant- Life Cycle Analyst (2-hour minimum)	Hour	\$350
Senior Regulatory Consultant	Hour	\$300
Regulatory Consultant II – Project Manager	Hour	\$220
Regulatory Consultant I	Hour	\$180
Admin/ Data Analyst/Marketing	Hour	\$150
Senior Regulatory Consultant, Mobilization	Hour	\$250
Regulatory Consultant II, Mobilization	Hour	\$180

<b>Audit</b>		
Audit Manager	Hour	\$300
Compliance Auditor – Fuel Team Lead	Hour	\$220
Compliance Auditor	Hour	\$180
Compliance Specialist	Hour	\$150
Compliance Auditor – Fuel Team Lead, Mobilization	Hour	\$180
Compliance Auditor, Mobilization	Hour	\$150

<b>Expenses</b>		
Mileage	Mile	\$0.545
Tier III Cities Per Diem- Meals	Day	\$50.00
Tier II Cities and Airports Per Diem- Meals	Day	\$75.00
Tier I Cities Per Diem- Meals	Day	\$95.00
Tier III Cities Per Diem- Hotels	Day	\$125.00
Tier II Cities Per Diem- Hotels	Day	\$215.00
Tier I Cities Per Diem- Hotels	Day	\$300.00
Per Diem- Rental Car	Day	\$95.00
Other Direct Expense, Printing, Shipping	Each	Expenses + 10%
Forensic Feedstock Analysis	Each	\$320.00
ASTM 6751 Critical Spec	Each	\$300.00

Consultant shall provide 30 days' advance written notice to Agency of any rate changes.

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.

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