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Commission Minutes

To: NCPA Commission

From: Trisha Zimmer, Assistant Secretary to the Commission

Subject: NCPA Commission Meeting – April 27, 2023

1. *Call Meeting to Order and Introductions*

Chair Jerry Serventi called the meeting to order at 9:35am at the Northern California Power Agency, 651 Commerce Drive, Roseville, California. Introductions and roll call were made. Those in attendance are shown on the attached attendance list.

2. *Approve Minutes of the March 23, 2023, Regular Commission Meeting*

MOTION: A motion was made by Bo Sheppard, and seconded by James Takehara to approve the minutes of the March 23, 2023, Regular Commission Meeting. The motion carried by a majority on a roll call vote of those Members present as follows:

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

PUBLIC FORUM

Chair Serventi opened the public comment period. No members from the public addressed the Commission. Chair Serventi closed the public comment period.

REPORTS AND COMMITTEE UPDATES

3. General Manager's Business Progress Report and Update

Tony Zimmer reported:

- The initial draft of the STIG Phase II Project Agreement is currently being circulated internally for review.
- Generation Services staff is working with a consultant to re-organize the initial report on the Geothermal Battery Energy Storage System (BESS) to get a better understanding of the sizing, interconnection, and operational structure.
- The Lodi Energy Center Hydrogen proposal was allowed back into the ARCHES Program as a Tier 1 project. The funding level is set at \$50 million.
- The Geothermal Plant outage continues. The strainer basket repair is underway.
- Scheduling of member check-in meetings with Randy Howard continues.
- Randy Howard continues to participate in the Federal Wildfire Commission activities speaking on behalf of electric utilities, with a focus on changes in legislation for reducing fire risk, and better management of active wildfires.
- With all the snowfall this past winter and high temperatures forecasted over the next few days, there will be a significant amount of snow melting. The Agency is currently running all our projects at full capacity to keep the water moving.
- The Federal EAP is pushing to accelerate the Electric Vehicle (EV) integration to 50% nationally by 2030. While the goals may not be achievable, each Member should at least have a plan for how to get there just in case and to show that we are being proactive.

4. Executive Committee

Committee Chair Serventi reported the Executive Committee met this morning with no reportable action taken. The next Executive Committee meeting is scheduled for May 25.

5. Facilities Committee

Assistant General Manager of Power Management, Tony Zimmer, reported the Facilities Committee met on April 5th. At that meeting the Committee discussed today's Commission meeting items 13 through 21 on the Consent Calendar. A quorum of the Committee was established at the meeting and recommended Commission approval of these items. Also for approval are Discussion/Actions items 23, 24, 25, 26, and 27. Mr. Zimmer noted that item 24 seeks approval of Exhibit C, Revision 25 to Contract 96-SNR-00110 (WAPA O&M Funding Commitment) and requires a unanimous affirmative vote from all ten Pool Members. Not all 10 Pool Members are present today, so that item will be pulled and brought back to the next regular Commission Meeting. The next Facilities Committee meeting is scheduled for May 3, 2023.

6. Finance Committee

Assistant General Manager of Administrative Services, Monty Hanks, reported the Finance Committee did not meet since the last Commission meeting. The next Finance Committee meeting is scheduled for May 9, 2023.

7. Legal Committee

General Counsel Jane Luckhardt reported the Committee met once since the last Commission meeting on April 6, 2023. During the meeting the Committee discussed the CVPIA refund disbursement accounting (today's Agenda Item #28). This was an informational discussion which gave the attorneys the opportunity to review the accounting. The Committee also had Closed Session discussion with no reportable action taken.

8. Legislative & Regulatory Affairs Committee

The NCPA L&R Team is preparing for their upcoming Federal Policy Conference that is co-sponsored with the Northwest Public Power Association each year. The conference will be held April 29-May 4 in Washington DC. There will be a full day conference on May 1st that will be followed by two and a half days of meetings on Capitol Hill and at the Federal agencies to advocate for our positions. Special thanks went to all of our elected officials, utility directors and staff that make this important advocacy event so effective each year.

NCPA's Customer Programs participants met with energy representatives from Wal Mart to discuss sustainability, investments in renewable energy, EV infrastructure and resiliency.

The next L&R Committee meeting will be held on August 23rd at NCPA's Roseville offices. We will continue to be actively engaged at the state level on the Advanced Clean Fleets rule which is before the CARB board today, regionalization discussions within public power, and many other key issues of importance to the Agency.

9. Members' Announcements & Meeting Reporting

Roseville City Councilmember, Pauline Roccucci, reported that Bosch is acquiring the old TSI Semiconductors building in Roseville with plans to begin producing SiC chips by 2026.

Truckee-Donner's Utility Director, Joe Horvath, will be retiring at the end of this September.

CONSENT CALENDAR

Prior to the roll call vote to approve the Consent Calendar, the Commissioners were polled to determine if any Member wished to pull an item or abstain from one or more items on the Consent Calendar.

MOTION: A motion was made by Suds Jain, and seconded by Bo Sheppard to approve the Consent Calendar consisting of Agenda Items 10 through 22. The motion carried by a majority of those members present on a roll call vote as follows:

	Vote	Abstained	Absent
Alameda	Y		
San Francisco BART			X
Biggs	Y		
Gridley	Y		
Healdsburg	Y		
Lodi			X
Lompoc			X
Palo Alto	Y		
Port of Oakland	Y		
Redding	Y	21	
Roseville	Y	21	
Santa Clara	Y	20, 21	
Shasta Lake	Y	16, 18, 21	
Truckee Donner	Y	16	
Ukiah	Y		
Plumas-Sierra			X

10. ***NCPA's Financials for the Month Ended March 31, 2023*** – approval by all Members.
11. ***Treasurer's Report for the Month Ended March 31, 2023*** – accept by all Members.
12. ***Disposal of Northern California Power Agency Surplus Property*** – note and file the report by all members for the disposal of the following: scrap metal of Lodi Energy Center.
Fiscal Impact: This report has no direct fiscal impact to the Agency.
13. ***Resolution 23-28, OST Truck and Cranes, Inc. – Five Year Multi-Task General Services Agreement; Applicable to the following: All NCPA Facilities, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members*** – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with OST Trucks and Cranes, Inc. for crane related services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,500,000 over five years for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.
Fiscal Impact: Upon execution, the total not-to-exceed amount of the agreement will not exceed \$1,500,000 over five years.
14. ***Resolution 23-29, Mesa Energy Services, Inc. dba EMCOR Services Mesa Energy – First Amendment to Five Year Multi-Task General Services Agreement for Chiller and HVAC Maintenance Services; Applicable to the following: NCPA, NCPA Members, the SCPPA, and SCPPA Members*** – adopt resolution by all members authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Mesa Energy Systems, Inc. dba EMCOR Services Mesa Energy for chiller and HVAC maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, modifying Exhibit A and Exhibit B, for continued use at any facilities owned and/or operated by NCPA, NCPA Members, SCPPA, and SCPPA Members.
Fiscal Impact: Upon execution the total cost of the agreement will remain unchanged at \$1,000,000.
15. ***Resolution 23-30, Tetra Engineering Group, Inc. – Five Year Multi-Task Professional Services Agreement for Inspection Services; Applicable to the following: NCPA, NCPA Members, SCPPA, and SCPPA Members*** – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with Tetra Engineering Group, Inc. for inspection services related to HRSG, power piping, steam plant assessments, root cause failures and consulting engineering, 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 by any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.
Fiscal Impact: Upon execution the total not-to-exceed amount of the agreement will not exceed \$1,000,000 over five years.

- 16. Resolution 23-31, Siemens Energy, Inc. – Five Year Multi-Task General Services Agreement for T3000 Maintenance and Support Services; applicable to the following: All NCPA Lodi Energy Center (LEC) and Geothermal Facility Locations, City of Redding and City of Roseville** – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement for T3000 maintenance and support services, with any non-substantial changes recommended and approved by NCPA General Counsel, which shall not exceed \$6,000,000 over five years, for continued use at NCPA LEC and Geothermal Facilities as well as the City of Redding and the City of Roseville.
Fiscal Impact: Upon execution, the total cost of the agreement will not exceed \$6,000,000 over five years.
- 17. Resolution 23-32, Baker Tilly Virchow Krause, LLP – First Amendment to the Two Year Multi-Task Professional Services Agreement for Annual Audit Services; applicable to the following: NCPA, NCPA Members, SCPPA, and SCPPA Members** – adopt resolution by all members authorizing the General Manager or his designee to enter into this First Amendment to the Multi-Task Professional Services Agreement for annual audit services, with any non-substantial changes recommended and approved by the NCPA General Counsel, accepting assignment to Baker Tilly US, LLP extending the agreement term for a second additional three-year term from July 1, 2023 to July 1, 2026, and increasing the not to exceed amount from \$500,000 to \$1,000,000, for continued use at NCPA, NCPA Members, SCPPA, and SCPPA.
Fiscal Impact: Upon execution, the total cost of the agreement will not exceed \$1,000,000.
- 18. Resolution 23-34, Parker Landscape Development Inc. – Five Year Multi-Task General Services Agreement for Landscape Maintenance Services; applicable to the following: All NCPA Facilities** – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Parker Landscape Development, Inc. for professional commercial landscape maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$300,000 over five years, for use only at any facilities owned and/or operated by NCPA.
Fiscal Impact: Upon execution the total cost of the agreement will not exceed \$300,000 over five years.
- 19. Resolution 23-35, Approval of Northern California Power Agency's Cyber Insurance Liability Program Renewal for April 2023 to April 2024** – adopt resolution by all members authorizing the General Manager or his designee to negotiate and bind the Cyber Liability Insurance Program for the term starting April 27, 2023 and ending April 27, 2024, at a not-to-exceed premium of \$258,000 for the Northern California Power Agency and Lodi Energy Center.
Fiscal Impact: The total cost of the policy year 2023 Cyber Liability Insurance program is estimated not to exceed \$258,000. This amount is already included in the Risk Management budget, therefore no budget augmentation is required.

- 20. Admission of Plumas-Sierra Rural Electric Cooperative as a New Amended and Restated Market Purchase Power Program Participant** – adopt resolution by all members authorizing Plumas-Sierra Rural Electric Cooperative (REC) to become a new Participant as defined under the Amended and Restated Market Purchase Program Agreement (MPP Agreement), upon Plumas-Sierra REC's execution of the MPP Agreement.
Fiscal Impact: NCPA's administrative costs for development and administration of the MPP Agreement will be allocated to Members in accordance with approved cost allocation methodologies as described in the NCPA annual budget.
- 21. Approval of Western Area Power Administration (WAPA) 2023 Renewable Energy Credit (REC) Program Letter Agreement 23-SNR-02937** – adopt resolution by all members authorizing the General Manager or his designee to execute the WAPA 2023 REC Program Letter of Agreement 23-SNR-02937, on behalf of NCPA, including any non-substantive changes recommended and approved by NCPA's General Counsel.
Fiscal Impact: Costs associated with entering into the WAPA 2023 REC Program Letter of Agreement 23-SNR-02937 are estimated to be less than \$10,000 for the term of the agreement, and will be allocated according to Base Resource percentages of the represented Members.
- 22. Resolution 23-20, CLEAResult Consulting, Inc. – Revised First Amendment to Three Year Multi-Task Consulting Services Agreement for Electrification Education and Outreach Services; applicable to the following: NCPA, NCPA Members, SCPPA, and SCPPA Members** – adopt resolution by all members authorizing the General Manager or his designee to enter into the revised First Amendment to the Multi-Task Consulting Services Agreement with CLEAResult Consulting Inc. for electrification education and outreach services, with any non-substantial changes recommended and approved by the NCPA General Counsel, modifying Exhibit A, for continued use at any facilities owned and/or operated by NCPA, NCPA Members, SCPPA, and SCPPA Members.
Fiscal Impact: Upon execution the total cost of this agreement will not exceed \$2,000,000

DISCUSSION/ACTION ITEMS

- 23. Resolution 21-109, NCPA Geothermal Second Amendment to Resolution 21-109 for the NCPA Geothermal Plant 2 Unit 4 Overhaul Project; Applicable to the following: NCPA Geothermal Facility** – adopt resolution by all members 1) delegating authority to the General Manager or his designee to execute Proof of Loss forms for \$3,599,999 (gross) for the Plant 2 Unit 4 Steam Turbine Damage Claim and deposit the balance back into the Maintenance Reserve account, and 2) modifying the Scope of Work increasing the total not to exceed amount of this project from \$5,000,000 to \$6,409,275; and 3) authorizing the use of an additional \$1,409,275 from the Maintenance Reserve.

Motion: A motion was made by Bo Sheppard and seconded by Pauline Roccucci recommending approval of the Second Amendment to Resolution 21-109 for the NCPA Geothermal Plant 2 Unit 4 Overhaul Project: 1) delegating authority to the General Manager or his designee to execute Proof of Loss forms for \$3,599,999 (gross) for the Plant 2 Unit 4 Steam Turbine Damage Claim and deposit the balance back into the Maintenance Reserve account; 2) modifying the Scope of Work and increasing the total not to exceed amount of this project from \$5,000,000 to \$6,409,275; and 3) authorizing the use of an additional \$1,409,275 from the Maintenance Reserve. The motion carried by a majority of those members present on a roll call vote as follows:

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

24. Approval of Exhibit C, Revision 25 to Contract 96-SNR-00110 (WAPA O&M Funding Commitment) – This item was pulled from the Agenda. No action/no discussion.

25. Approval of an Amendment to the Second Amended and Restated Pooling Agreement adding Pooling Schedule 14 (Meter Maintenance Program) – adopt resolution by all members authorizing the addition of Pooling Schedule 14 (Meter Maintenance Program) to the Second Amended and Restated Pooling Agreement including any non-substantive modifications as approved by NCPA's General Counsel.

Fiscal Impact: There is no direct fiscal impact to NCPA.

Motion: A motion was made by Bo Sheppard and seconded by Dean Batchelor recommending approval of Resolution 23-41 authorizing the addition of Pooling Schedule 14 (Meter Maintenance Program) to the Second Amended and Restate Pooling Agreement, including any non-substantive modifications as approved by NCPA's General Counsel. The motion carried by a majority of those members present on a roll call vote as follows:

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

26. Approval of the General Services Agreement between NCPA and Ulteig Engineers, Inc. for Meter Maintenance - adopt resolution by all members authorizing the General Manager or his designee to enter into a General Services Agreement with Ulteig Engineers, Inc. for member meter maintenance services, with any non-substantive changes as recommended and approved by the NCPA General Counsel, which shall not exceed \$1,200,000 over five years.

Fiscal Impact: Upon execution, the total cost of this agreement will not exceed \$1,200,000 over five years. However, there is no direct fiscal impact to NCPA. All costs associated with the Meter Maintenance Program will be invoiced to each Participant in accordance with the procedures set forth in Section 9 of the Second Amended and Restated Pooling Agreement.

Motion: A motion was made by Pauline Roccucci and seconded by Suds Jain recommending approval of Resolution 23-40 authorizing the General Manager or his designee to enter into a General Services Agreement with Ulteig Engineers, Inc. for Meter Maintenance, for the purpose of supplying meter maintenance services to NCPA Members (including Pooling Agreement Participants and other NCPA Members who are not Pooling Agreement Participants), including any non-substantial modifications to the General Services Agreement as recommended and approved by the NCPA General Counsel. The motion carried by majority of those members present on a roll call vote as follows:

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

27. Approval of the FY2024 Annual Budget - adopt resolution by all member approving the FY2024 Annual Budget and Working Capital and Funding Requirement as detailed in the budgetary support and Annual Budget documents.

Fiscal Impact: The Executive Summary section of the budget document contains an analysis of the overall budget. The total proposed net annual budget cost for FY2024 is approximately \$671.7 million, which represents an increase of 19.4% or a \$109.1 million dollar increase over the FY2023 budget as summarized in the schedule provided in the Commission packet. Allocation of the FY2024 Annual Budget between members and LEC Participants is based on participation levels in NCPA programs and projects and the approved cost allocations. The final funding allocation for each member is shown in Section 13 of the budget document.

Motion: A motion was made by Pauline Roccucci and seconded by Dean Batchelor recommending approval of the Fiscal Year 2024 Annual Budget and Working Capital and Funding Requirement. The motion carried by a majority of those members present on a roll call vote as follows:

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

28. Central Valley Project Improvement Act (CVPIA) Refund - Authorizing NCPA to Disburse Funds to Members as Specified in the “CVPIA Settlement Distribution REVISED3” Spreadsheet Prepared by NCPA Accounting Department as Adjusted for Additional Accumulated Interest to the Date of Disbursement – adopt resolution by all members authorizing NCPA to disburse Central Valley Project Improvement Act (CVPIA) refunds as specified in the “CVPIA Settlement Distribution REVISED3: Spreadsheet Prepared by NCPA Accounting Department as Adjusted for Additional Accumulated Interest to the Date of Disbursement.

Fiscal Impact: After review and revision, NCPA staff recalculated the damages award and legal fees due to (and from) each Participating Member and those calculations are specified in the “CVPIA Settlement Distribution REVISED3” spreadsheet. Upon final approval, additional accrued interest will be added to each Participating Members’ disbursement in the same manner as the \$212,640 of interest is applied in the “CVPIA Settlement Distribution REVISED3” spreadsheet. Staff provided the disbursement to each Participating Member according to that Participating Member’s instructions to NCPA’s accounting department.

Motion: A motion was made by Pauline Roccucci and seconded by Suds Jain recommending approval of Resolution 23-42 authorizing NCPA to disburse CVPIA refunds as specified in the CVPIA Settlement Summary table and detailed in the “CVPIA Settlement Distribution REVISED3” spreadsheet prepared by NCPA accounting department, as adjusted for additional accumulated interest to the date of disbursement. The motion carried by a majority of those members present on a roll call vote as follows:

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

CLOSED SESSION

It was determined by the General Counsel that the Closed Session items listed on the Commission Agenda would not be discussed at today's meeting. The Commission meeting did not enter into Closed Session.

29. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION - No discussion

30. CONFERENCE WITH LEGAL COUNSEL – POTENTIAL LITIGATION – No discussion

NEW BUSINESS

No new business was discussed.

ADJOURNMENT

The April 27, 2023, Commission meeting was adjourned at 11:14 am by Chair Serventi.

Respectfully submitted,

Prepared by,

JERRY SERVENTI
Commission Chair

TRISHA ZIMMER
Assistant Secretary to the Commission



Commission Meeting
April 27, 2023
COMMISSIONERS
Attendance List

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

MEMBER	NAME
1 - ALAMEDA	<i>Steve Stewart</i>
2 - BIGGS	<i>Bob Sheppard</i>
3 - GRIDLEY	
4 - HEALDSBURG	
5 - LODI	
6 - LOMPOC	
7 - PALO ALTO	
8 - PLUMAS-SIERRA REC	
9 - PORT OF OAKLAND	
10 - REDDING	
11 - ROSEVILLE	<i>Pauline Roccucci</i>
12 - SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT	
13 - SANTA CLARA	<i>Sude Jain</i>
14 - SHASTA LAKE	<i>James Taketara</i>
15 - TRUCKEE DONNER	
16 - UKIAH	



**Commission Meeting
April 27, 2023
Attendance List**

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

[illegible]

SUPPORT SERVICES PROGRAM STATUS REPORT

May 17, 2023

Member Name	Designated Representatives	Authorized Confirmation NTE Amount	Date Approved
Alameda - AMP	General Manager & AMP General Counsel	\$ 75,000	06/08/16
BART			
Biggs	Utility Director & City Attorney	\$ 125,000	08/09/16
Gridley	City Administrator & City Attorney	\$ 125,000	02/07/22
Healdsburg	City Manager & City Attorney	\$ 50,000	05/06/19
Lodi	Utility Director & City Attorney NTE \$30,000; City Manager & City Attorney NTE \$60,000	\$ 60,000	09/07/16; 05/20/22
Lompoc	Utility Director & City Attorney	\$ 125,000	11/15/16
Palo Alto	City Manager & City Attorney	\$ 85,000/yr. with up to 3 yr. term per vendor	06/05/17
Plumas-Sierra REC	General Manager & Cooperative Attorney	\$ 20,000	01/25/23
Port of Oakland	Executive Director & Deputy Port Attorney	\$ 150,000	04/14/16
Redding	Utility Director & City Attorney Procurement Authority Increased	\$ 200,000	04/19/16; 08/20/20
Roseville	Electric Utility Director & City Attorney	\$ 74,999	10/05/15; 05/05/21
Santa Clara	City Manager & City Attorney	\$ 150,000	05/24/16
Shasta Lake	City Manager & General Counsel	\$ 75,000	07/02/19
Truckee Donner PUD	General Manager & General Counsel NTE \$15,000; General Manager, General Counsel & Board President NTE \$250,000	\$ 250,000	11/02/16
Ukiah	Utility Director & City Attorney	\$ 20,000	01/19/22

SSPA CONFIRMATIONS EXECUTED/WORK IN PROGRESS

No.	Member Name	Date	Amount NTE	Vendor Name & Short Description
0303	City of Palo Alto	5/16/23	\$51,015.00	Flynn Resource Consultants, Inc.; Analysis of the City's Electric Supply Portfolio Planning and post-layoff use of its share of the COTP.
0299	City of Palo Alto	5/16/23	\$11,620.00	Aspen Environmental Group; Provide natural gas regulatory services through December 21, 2023.
0298	City of Palo Alto	3/16/23	\$249,829.00	iParametrics LLC; Grant writing services for Electric GRIP Grant and for Gas NGDISM Grant and for Post-Award services and support for future grants.
0295	Alameda Municipal Power	5/3/23	\$250,000.00	SpryPoint Services, Inc.; Implement SpryMobile Asset and Workflow Management Software to support AMP's operational needs through September 14, 2027.
0294	City of Palo Alto	3/23/23	\$53,540.00	Cool the Earth ; Through the Ride and Drive Clean campaign, will host webinars on EV's and ebikes, including incentives and charging education.
0293	City of Roseville	3/6/23	\$ 52,170.00	DNV Energy Services USA Inc.; EM&V verification technical advisory services.
0291	Truckee Donner PUD	2/8/23	\$ 62,500.00	ADM Associates, Inc.; EM&V technical advisory services including Electrification Saturation Study, 2022 Program Review and 2023 Program review and free-ridership analysis.
0290	City of Roseville	3/15/23	\$751,675.00	Performance Mechanical Inc.; Maintenance work for Roseville scheduled outage including piping work, hydrotesting, HRSG maintenance, catalyst maintenance, troubleshooting, underground piping maint. outage support, rotating equipment alignment, parts supply, structural steel work to provide access for necessary facility maintenance, on T&M basis.

SSPA CONFIRMATIONS EXECUTED/WORK IN PROGRESS

No.	Member Name	Date	Amount NTE	Vendor Name & Short Description
0289	Truckee Donner PUD	1/31/23	\$ 24,180.00	Guidehouse, Inc.; Independent evaluation services for TDPUD's Wildfire Mitigation Plan.
0288	City of Palo Alto	2/1/23	\$ 77,740.00	Acterra; EV education activities for the City of Palo Alto Utility as detailed in its proposal during 2023.
0287	City of Palo Alto	2/3/23	\$ 41,180.00	Ascend Analytics; provide analysis re Palo Alto's Electric Supply Portfolio Planning, as detailed in proposal.
0286	City of Palo Alto	3/2/23	\$ 84,515.00	ADM Associates Inc.; EM&V of the cost effectiveness and energy savings attributed to energy efficiency and electrification programs as detailed in the ADM SOW for Palo Alto Utilities.
0284	City of Santa Clara	2/3/23	\$ 89,518.00	Cadmus Group, LLC; conduct an impact evaluation of SVP's Commercial Rebate Programs targeting lighting, data centers, controls, and other applications, and evaluate the impact of small business grant measures.
0283	Alameda Municipal Power	11/29/22	\$141,075.00	Cooperative Response Center; for after-hours answering services for 36-month period through November 2025.
0281	Truckee Donner PUD	11/23/22	\$ 25,227.00	Dudek; Comprehensive revision of TDPUD Wildfire Mitigation Plan pursuant to AB 1054 and PUC section 8387; including review, collection of data, and WMP revision.
0280	City of Roseville	3/23/23	\$282,320.00	EvapTech, Inc.; Cooling tower maintenance, rehabilitation and parts supply at Roseville Electric Utility generation facilities during outage.

SSPA CONFIRMATIONS EXECUTED/WORK IN PROGRESS

No.	Member Name	Date	Amount NTE	Vendor Name & Short Description
0277	City of Lodi	9/28/22	\$156,460.00	Electric Power Systems International, Inc.; Specialized electrical services as identified in 9/26/22 letter addressed to Lodi.
0276	City of Palo Alto	10/21/22	\$ 10,383.00	Dudek; Review and provide assessment of 2023 Wildfire Mitigation Plan and report findings.
0275	Alameda Municipal Power	10/21/22	\$ 46,675.00	Utility Financial Solutions; for Electric Cost of Service Study.
0274	City of Roseville	9/27/22	\$ 67,900.00	EES Consulting; for Cost of Service analysis including four primary tasks incl. developing a 10-year financial model that feeds directly to a COSA model, customize a COSA model including analysis of all financial, load, and rate inputs, develop a rate design model and alternatives, and develop a line extension model for new development in the City.
0270	City of Lompoc	1/1/23	\$125,000.00	Power Engineers, Inc.; provide system impact study for new development projects and other engineering services within Scope included in NCPA agreement.
0269	City of Lodi	10/18/22	\$281,460.00	Cooperative Response Center, Inc.; after-hours answering services for Lodi Electric and Lodi Public Works departments for three-year period.
0268	City of Roseville	2/1/23	\$687,492.00	Precision Iceblast Corporation; HRSG Deep cleaning for two units, including scaffolding, Confined Space rescue team for work onsite for planned April outage.
0267 Amd.	City of Redding	10/5/22 3/2/23	\$ 13,292.95	Dudek; Wildfire Mitigation Plan review, secondary review, and in-person presentation to Redding Council.
0266	City of Healdsburg	9/20/22	\$ 27,995.00	Dee's Design Box; graphic design services for various projects including bill inserts, direct mail flyers, and as requested and included in contract's scope of work.

SSPA CONFIRMATIONS EXECUTED/WORK IN PROGRESS

No.	Member Name	Date	Amount NTE	Vendor Name & Short Description
0262	Port of Oakland	9/28/22	\$ 34,675.00	Black & Veatch; perform engineering and substation support including analysis and review of diagrams and other information for assistance with distribution planning.
0258	Alameda Municipal Power	6/6/22	\$ 46,390.00	Dee's Design Box; Graphic design services including branding package development, document creation including newsletters, bill inserts, online ads, and information sheets for FY23.
0257	Truckee Donner PUD	7/1/22	\$ 60,000.00	iParametrics; Grant writing services.
0256	Alameda Municipal Power	8/3/22	\$ 55,377.00	ADM Associates, Inc.; EM&V study on two of AMP's energy efficiency programs, Energy Plus and EAP Plus for FY2020 and 2021.
0253	City of Palo Alto	7/26/22	\$ 29,250.00	D+R International; provide network access via Qmerit to EV vetted local contractors able to install EV chargers and conduct electric panel upgrades. Online process allows customers to obtain bids for consideration. Including White Label Package with standard reporting. (No actual installation included in the services.)
0251	City of Santa Clara	5/3/22	\$ 42,720.00	Cameron-Cole LLC; perform verification services for Calendar years 2021-2023 CARB Greenhouse Gas emissions and Electric Power Entity reports for compliance with mandatory reporting.
0249	City of Lodi	7/21/22	\$ 92,170.00	Central Coast Energy Services, Inc.; income verification and recertification services for financial rate assistance programs and other income qualified customer programs through FY25.

SSPA CONFIRMATIONS EXECUTED/WORK IN PROGRESS

No.	Member Name	Date	Amount NTE	Vendor Name & Short Description
0246	Port of Oakland	2/3/22	\$ 78,706.00	Aspen Environmental; perform a Utilities Rate Study to provide analysis of the current rate input information and what level of full rate study could be needed.
0245	City of Palo Alto	3/23/22	\$ 44,825.00	Cool the Earth; Energy efficiency services including 12 online Electric Vehicle (EV) 101 or 102 workshops and two group Buy EV Discount campaigns.
0243	City of Lompoc	1/24/22	\$ 62,500.00	Utility Financial Solutions; cost of service financial projection and rate design study for the City's utility department.
0242	City of Redding	12/10/21	\$ 26,645.00	Cameron-Cole LLC; verification services for REU power plant GHG emissions for compliance with the Regulation for mandatory CARB reporting. Services for emission years 2021 and 2022.
0240	Alameda Municipal Power	2/23/22	\$198,025.00	Frontier Energy, Inc.; Energy efficiency services including electrification and clean transportation courses, induction cooking demonstrations, commercial food service site audits, and work force education and training courses.
0237	City of Santa Clara	9/14/21	\$132,058.00	Central Coast Energy Services, Inc.; income eligibility and processing of applications for Financial Rate Assistance Program, both new and renewal for existing customers.
0236	City of Santa Clara	3/1/22	\$422,368.00	CLEAResult; EV charging structure technical assistance, electrification education, and electrification assessment services.
0230	City of Santa Clara	8/30/21	\$ 87,715.00	Frontier Energy, Inc.; Electrification and education services including Induction Cooking demonstration, online trainings, commercial food services site audits, and Guest Chef cooking classes.

SSPA CONFIRMATIONS EXECUTED/WORK IN PROGRESS

No.	Member Name	Date	Amount NTE	Vendor Name & Short Description
0229	City of Lompoc	8/2/21	\$ 71,470.00	MFP Connect, LLC; Services re electric line extensions including conceptual framework, interviews with staff, reporting, policies, and development of rules and regulations.
0225	City of Roseville	8/2/21	\$167,716.00	Plug In America; provide EV education in-person and virtual events and EV advocate trainings; provide Dealer Incentive Program including training, engagement, certificate pricing, license fees, incentive funds, and program management.
0224 Amd.	City of Healdsburg	7/1/21 5/16/23	\$ 9,394.00	HOT/SHOT Infrared Inspections Inc.; infrared inspections of one substation and overhead 12kv distribution system.
0221	City of Lompoc	6/7/21	\$ 57,500.00	Hometown Connections, Inc.; services to facilitate the development of a Strategic Plan through HCI planning process and preparation of final plan document.
0186 Amd. 2 nd Amd.	Alameda Municipal Power	9/21/20 7/23/21 8/23/22	\$200,000.00	Flynn Resource Consultants, Inc.; services related to electric transmission issues, grid planning, load levels, regulatory matters, litigation support, through FY23.
0117 Amd.	City of Lodi	8/22/19 1/20/21	\$275,811.00	Burns & McDonnell; engineering design and environmental analysis for the PG&E Northern San Joaquin 230 kV Transmission Project to be incorporated into PG&E's PEA.
0080	City of Roseville	8/15/18	\$700,000.00	Siemens Energy, Inc.; Year 5 of 5-year T-3000 Maintenance Program.
0079	City of Redding	8/23/18	\$740,420.00	Siemens Energy, Inc.; Year 5 of 5-year T-3000 Maintenance Program.

SSA CONFIRMATIONS EXECUTED AND IN PROGRESS
(SERVICES THROUGH SCPPA CONTRACTS OR TO SCPPA MEMBERS THROUGH NCPA CONTRACTS)

No.	Member Name	Date	Amount NTE	Vendor Name & Short Description
0282	City of Vernon	1/23/23	\$374,245.00	Ascend Analytics, LLC; provide services for the development of an integrated Resource Plan.
0273	City of Vernon	4/13/23	\$145,225.00	NewGen Strategies and Solutions, LLC; provide Electric Cost of Service analysis and Rate Design Study.
0259	City of Burbank/ Burbank Water & Power	10/26/22	\$134,010.00	NewGen Strategies and Solutions, LLC; provide Electric Cost of Service Analysis and Rate Design Recommendations.
0250	City of Lodi	8/18/22	\$ 52,830.00	Efficiency Services Group, LLC; provide "Keep Your Cool" commercial refrigeration program to help commercial business owners save energy during FY22 and FY23.
0222	City of Santa Clara	11/15/21	\$150,000.00	The Energy Federation, Inc.; create, host and maintain a secure eCommerce site (marketplace) for SVP customers to support current and future version of the major Web browser on common operating systems and mobile devices.



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Commission Staff Report

AGENDA ITEM NO.: 5

Date: May 25, 2023
To: NCPA Commission
Subject: May 3, 2023 Facilities Committee Meeting Minutes

The attached Draft Minutes are being provided for information and to augment the oral Committee report.



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Minutes

Date: May 4, 2023
To: NCPA Facilities Committee
From: Carrie Pollo
Subject: May 3, 2023 Facilities Committee Meeting Minutes

- 1. Call meeting to order & Roll Call** – The meeting was called to order by Committee Chair Alan Harbottle (Alameda) at 9:10 am. Attending via teleconference and on-line presentation were Midson Hay (Alameda), Jake Carter (Gridley), Mike Brozo (Plumas-Sierra), Khaly Nguyen (Port of Oakland), Nick Rossow (Redding), Monica Nguyen (Santa Clara), and Cindy Sauers (Ukiah). Peter Lorenz (non-voting Representative with TID) also attended via teleconference and online presentation. Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Biggs, Healdsburg, Lodi, Lompoc, Palo Alto, Shasta Lake and TID, were absent. A quorum of the Committee was not established.

PUBLIC FORUM

No public comment.

- 2. Approval of Minutes from the April 5, 2023 Facilities Committee meeting.**

Due to the lack of a quorum no formal action was taken on this item.

- 3. All NCPA Facilities, Members, SCPPA – Plug In America First Amendment to MTCSA –** Staff presented background information and was seeking a recommendation for Commission approval of a First Amendment to the Multi-Task Consulting Services Agreement with Plug In America for electrification education and outreach services, to extend the term of the Agreement for an additional two year period, for continued use by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

NCPA entered into a three-year MTCSA with Plug In America effective December 18, 2020, for an amount not to exceed \$750,000. This agreement has been used by NCPA Members through NCPA's Support Services program. An NCPA Member has requested that the agreement be extended. This amendment will extend the term of the Agreement for an additional two-year period from the original expiration date of December 17, 2023 to a new date of December 17, 2025. The not to exceed amount of \$750,000 will remain the same through the end of the contract term. This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA has agreements in place for similar services with Acterra, Cool the Earth, and Electric Car Insider.

Due to the lack of a quorum, no formal action was taken. However, the Members present at the meeting voiced their support of the recommendation for Commission approval authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task Consulting Services Agreement (MTCSA) with Plug In America for Electrification Education and Outreach Services, with any non-substantial changes recommended and approved by the NCPA General Counsel, to extend the term of the Agreement for an additional two year period, for continued use by NCPA, NCPA Members, by SCPPA, and SCPPA Members. No other meeting attendees had any objections or questions. This item will move forward to the next Commission Meeting scheduled on May 25, 2023 on the Commission Consent Calendar.

- 4. All NCPA Facilities, Members, SCPPA – EverLine Compliance CA, LLC Second Amendment to MTGSA** – Staff presented background information and was seeking a recommendation for Commission approval of a Second Amendment to the five-year Multi-Task General Services Agreement with EverLine Compliance CA, LLC for pipeline maintenance and operations related services, amending Exhibits A and B to include additional regulatory services, for continued use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

NCPA entered into a five year Multi-Task General Services Agreement with Energy Project Solutions, LLC, effective June 1, 2020, to provide pipeline operations and maintenance services, for use at all NCPA, NCPA Member, SCPPA, and SCPPA Member facilities. Effective April 18, 2022, NCPA and Energy Project Solutions entered into a First Amendment, accepting assignment of the agreement to EverLine Compliance CA, LLC.

It was recently determined NCPA didn't have a compliant control room under our current services to control the Alameda pipeline. Since the Alameda pipeline is a DOT PHMSA regulated asset, NCPA can't add it to the existing LEC control room without significantly increasing the regulatory requirements for NCPA and its employees. These services were previously administered by Dick Brown Technical Services (DBTS) as subcontracted by Energy Project Solutions (EPS), NCPA's previous pipeline compliance contractor. EverLine has acquired both DBTS and EPS, and can provide these services. NCPA now desires to enter into a Second Amendment to the Multi-Task General Services Agreement amending Exhibits A and B to add these required regulatory control room services. The not to exceed amount of \$1,000,000 will remain the same through the end of the contract term. 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 does not have any other agreements for similar services at this time.

Due to the lack of a quorum, no formal action was taken. However, the Members present at the meeting voiced their support of the recommendation for Commission approval authorizing the General Manager or his designee to enter into a Second Amendment to the Multi-Task General Services Agreement with EverLine Compliance CA, LLC for pipeline operations and maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, amending Exhibits A and B to add required regulatory services, for continued use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. No other meeting attendees had any objections or questions. This item will move forward to the next Commission Meeting scheduled on May 25, 2023 on the Commission Consent Calendar.

- 5. All NCPA Facilities, Members, SCPPA – Aspen Environmental Group MTCSA** – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Consulting Services Agreement with Aspen Environmental Group for

energy related consulting 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.

This is an existing NCPA vendor. The current agreement with Aspen Environmental is expiring. An NCPA Member has expressed an interest in using this vendor in the future. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA has similar agreements in place with Kano Consultants, Geosyntec Consultants, Inc., EGS Consulting, Inc., and Risk Management Professionals, Inc.

Due to the lack of a quorum, no formal action was taken. However, the Members present at the meeting voiced their support of the recommendation for Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with Aspen Environmental Group for energy related consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. No other meeting attendees had any objections or questions. This item will move forward to the next Commission Meeting scheduled on May 25, 2023 on the Commission Consent Calendar.

- 6. NCPA Geothermal Facility – 2023 Steam Field Operations Forecast Report** – Staff presented background information and was seeking a recommendation for Commission approval of the 2023 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, 2023, and remaining in effect until replaced by the Commission.

The 2022 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 2022 Protocol allowed for reduction of load under the economic conditions listed below.

- Day Ahead Market Prices are a minimum of negative \$25 per MWh.
- 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 2023, the recommended Operating Protocol is to continue using the two-zone strategy, and operate Plants #1 and #2 at baseload conditions with the goal of maximizing generation. To clarify the criteria for any reduction in generating load, the following economic conditions are introduced into the 2023 Geothermal Operating Protocol.

- Curtailing generation is an option that may occur only when the Day Ahead Market Prices are a minimum of negative \$25 per MWh and Net of the Renewable Energy Credit (REC) value.
- 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.

This Protocol establishes a 2023 annual peak generation target of 101.5 gross MW.

Due to the lack of a quorum, no formal action was taken. However, the Members present at the meeting voiced their support of the recommendation for Commission approval authorizing the 2023 Steam Field Operations and Forecast Report dated May 2023 as the Geothermal Operating Protocol effective July 1, 2023. This Operating Protocol is to remain in effect until replaced by the Commission. No other meeting attendees had any objections or questions. This item will move forward to the next Commission Meeting scheduled on May 25, 2023 on the Commission Consent Calendar.

7. **NCPA 2023 Wildfire Mitigation Plan** – Staff is seeking a recommendation for approval of the NCPA 2023 Wildfire Mitigation Plan, with updated revisions based on the qualified independent evaluator's recommendations.

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. Annual independent evaluations of the Wildfire Mitigation Plan were conducted in 2020, 2021 and 2022, with minor revisions to the plan. Each revision has been approved in annual Commission Meetings.

NCPA contracted with Dudek, a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure, to complete the statutorily required three-year revision 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) and WSAB 2022 recommendations. The independent evaluation and report were completed April 27, 2023.

NCPA is now seeking Commission approval of the NCPA 2023 Wildfire Mitigation Plan, to include the recommended revisions provided by the qualified independent evaluator, revise the Wildfire Mitigation Plan from Version 1.3 to 2.0 to reflect the three year required update, and post the Wildfire Mitigation Plan 2.0 to the NCPA Website.

Due to the lack of a quorum, no formal action was taken. However, the Members present at the meeting voiced their support of the recommendation for Commission approval of the NCPA 2023 Wildfire Mitigation Plan, with updated revisions based on the qualified independent evaluator's recommendations and Wildfire Safety Advisory Board (WSAB) 2022 recommendations. No other meeting attendees had any objections or questions. This item will move forward to the next Commission Meeting scheduled on May 25, 2023 on the Commission Consent Calendar.

8. **City of Lodi Scheduling Coordinator Agreement** – Staff is seeking a recommendation for Commission approval of a Scheduling Coordinator Agreement between NCPA and the City of Lodi, for the purpose of scheduling the Lodi Strategic Reserve Project (Resource ID LODI25_6_ERKNG1). *****This item was pulled from the agenda and will be brought back to a future meeting.*****

INFORMATIONAL ITEMS

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

NCPA Project Development (PPA) – Zero Waste Energy Development (ZWED)

- SB 1383 Compliance Goal

- 1.6 MW LF Gas – Existing Facility
- Participants: Santa Clara and Palo Alto
- Products: Energy, RPS, RA
- Term: 10 Year Term
- Operations: Seller to act as Scheduling Coordinator
- Price: TBD
- Negotiation Status: Active

Scheduling Coordinator Services – City of Lodi Strategic Reserve – Lodi is working with CDWR to install additional capacity in support of a State Strategic Reserve Program. This would be a 48+ MW natural gas facility operated by Enchanted Rock. NCPA's role would be to act as the Schedule Coordinator for the facility interconnected with the City of Lodi. This facility is to only be dispatched under limited circumstances such as CAISO system emergency (EEA1, EEA2, and EEA3) in response to a local transmission emergency. The goal of this project is to be operational in the summer of 2023. Staff is now developing a Scheduling Coordinator Agreement with Lodi.

Geysers Geothermal – Next Steps

- Project Participation Percentage Transfer Deadline
 - Deadline: April 30, 2023
- Next Steps:
 - All assignments have been fully executed
 - NCPA to seek Commission approval of amended Appendix A to incorporate Table 3

10. NCPA Inter-Agency Resource Plan (IARP) Update – Staff provided an informational update regarding the development of the NCPA IARP.

- **Short Term Goals 2021-2026**
 - Identify Member's common needs (existing load and Member owned resources)
 - Conceptual plans of transition periods (effects of electrification and EV charging)
 - Proposal & Economic Evaluation (considering effects of temperature increase and increasing transmission costs)
- **Project Deliverables Schedule (Ascend)**
 - 3/2 – NCPA Background, Assumptions & Purpose
 - 3/9 – Energy & Peak Demand Forecasts (Pooling Member review of Load forecasts)
 - 3/16 – Resources & Capacity (Pooling Member review of Resources)
 - 4/28 – Load – Resource Balance (Pooling Member review)
 - 5/11 – Planning Scenario and Recommendations
 - 5/23 – Conclusion
 - 5/30 – Executive Summary

Please direct any questions to James Mearns with NCPA or Brandon Mauch with Ascend Analytics.

11. NCPA Generation Services Plant Updates – Plant Staff provided the Committee an update on current plant activities and conditions.

CTs – CT1 had 16 starts (7 ghost and 9 actual) of 6 forecasted. FYTD total is 120 starts. Alameda Units 1 & 2 were dispatched in the Day Ahead market. CT2 had 0 starts of 0 forecasted. FYTD total is 21 starts.

- **Outages**
 - CT1 Lodi – On 4/20/23 @1443 64B Utility Ground Fault Relay. Crews were dispatched and began troubleshooting. Found 13.8Kv bus cable to Aux transformer,

- “B” phase is bad. On 5/24/23 RFP went out to three electrical contractors, on 5/26 one contractor responded, quote on hand for the work. Unit forced out thru 5/15/23.
 - CT1 Alameda – U1/U2 – The NERC PRC-006 testing outage scheduled for 5/15/23 – 5/17/23 was cancelled due to PG&E unable to support those dates. New outage dates are 6/5/23 – 6/7/23.
 - CT2 STIG – Outage is complete and unit is back in service.
- **CT1 Lodi Run Hours**
 - YTD hours 16.5 of 200 Allowed (based on calendar year)
- **CT1 Alameda Diesel Hours**
 - U1= 5.27 hrs. of 20 (based on rolling year)
 - U2= 5.80 hrs. of 20 (based on rolling year)
- **Safety and Environmental**
 - No Safety issues to report.
 - DOT Pipeline and Hazardous Material Safety Administration (PHMSA), conducted Alameda gas pipeline inspection 4/18-4/20. To finalize inspection, DOT inspector needs to witness main gas shutoff for pipeline.
- **FY 20203 Encumbrance Update**
 - The CT1 Excitation upgrade is complete, NCPA has paid \$919,530.54 and the controls upgrade will need to be carried over into FY 2024. Controls estimated cost will be around \$255,000.
 - All other outstanding projects have been received and paid.
- **Staff reviewed the CAISO Commitment Runs for April 2023.**

Geo – There was one safety incident to report for the month of April due to an accidental H2S release. Safety training was done after this incident, which is now 56% complete for the year. Cal Fire Konocti is staging and starting vegetation management at the Geo Facilities. The average net generation level for April was 74 MW. Total average net generation was 53.3 GWh. The FY 2023 net generation goal is 734 GWh. Currently FY 2023 actual net generation is 577.8 GWh YTD at 4.8% under the forecasted net generation YTD. Unit 1 is currently still out of service. The return to service is TBD. Basket strainer material was found inside the turbine. Bids were received to open, clean, and inspect the turbine. Inspections were conducted on the Plant 1 and 2 cooling towers.

Hydro – The Hydro project continues with heavy generation schedules. Collierville (CV) Power House was at 99% availability and New Spicer Meadows (NMS) Power House was at 92% availability during the month of April. April precipitation was 0.1 inches based on the 5 – Station Index. Precipitation is at 61.2 total inches, and is at 167% of average for this date. The SWC dropped from 237 to 191 and is at 252% of average for this date. Alpine, Union, Utica, North Fork, Beaver Creek and McKays Point are all currently spilling.

Staff provided a McKays Sedimentation levels update. A February 2023 Bathymetry was conducted to determine sedimentation impact from recent 2023 storms. It's been detected that there is sediment movement into critical zones of the Hydro facilities including the cofferdam, power tunnel intake, fishery facilities and McKays Dam. There has been no overall net reservoir accumulation since 2018 – 518,000 to 460,000 cubic yards. The multi-beam scanning technology effectively shows advancement, scouring, and densification of the loose vegetative deposits. Staff will develop methods for a more frequent survey regime, and a sediment response plan.

- **New Spicer Meadows Reservoir Storage**
 - 12,191 acre feet increase (20%) month-over-month
 - 62,481 acre feet to 74,672 acre feet
 - High snow water content and forecasted spill
 - Optimizing stored water

- Flushing flows completed on 4/8/2023
- Anticipate elevated drafts based on required flushing flows, likelihood of Spicer spill, tailwater management, and market conditions
- Monitoring snowpack, water rights, runoff, and market

Current Events

- **Projects**
 - USGS approved the 2021-2022 Water Year Record
 - Continued FEMA/OES damage coordination
 - Monthly CCWD coordination meetings
 - Commencing preparatory work on all approved FY 2024 projects
 - Base mapping underway for Clarks Creek along CV PH
 - Detailed design out for proposals
 - 230 KV T-line vegetation management commencing
 - Work is bidding

12. Planning and Operations Update

- **Resource Integrations In Progress**
 - City of Lodi Strategic Reserve – June 2023
 - Dagget Solar / Storage – Q3 2023
 - Solar Summer 2023
 - BESS Fall 2023
 - Scarlet Solar / Storage – Q3 2023
 - West Tambo Solar – Q3 2023
 - Proxima Solar / Storage – Q1 2024
- **Summer 2023 Readiness** – A coordination meeting with CAISO on May 9. NCPA activities include review and confirmation of Member contact information, review and validation of operating procedures, updated Dispatch and SC training for emergency operations, discuss emergency operations with Members, and further coordination with CAISO.
- **Meter Maintenance Program** – Next steps include confirming Member contacts, developing a project schedule for the Member meter maintenance per site and/or device, and implanting internal procedures for the administration of the Meter Maintenance Program.

13. Next Meeting – The next regular Facilities Committee meeting is scheduled for June 7, 2023.

ADJOURNMENT

The meeting was adjourned at 12:05 pm by the Committee Chair.


**Northern California Power Agency
May 3, 2023 Facilities Committee Meeting
Attendance List**

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

[illegible]

**Northern California Power Agency
May 3, 2023 Facilities Committee Meeting
Attendance List**

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

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



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: April 30, 2023 Financial Report (unaudited)

AGENDA CATEGORY: Consent

FROM:	Sondra Ainsworth 	METHOD OF SELECTION:
	Treasurer-Controller	N/A
Division:	Administrative Services	
Department:	Accounting & Finance	

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

RECOMMENDATION:

Recommending the Northern California Power Agency (NCPA) Commission approve the Financial Report for month ending April 30, 2023.

NOTICE:

The disbursements of the Northern California Power Agency (NCPA) for the month reported herein, will be approved at the May 25, 2023 meeting of the NCPA Commission. The following page is a summary of those disbursements.

Prior to the Chairman's call to order, the Assistant Secretary to the Commission will, upon request, make available for review the detailed listing of those disbursements.

The report of budget vs. actual costs and the unaudited April 30, 2023 financial reports are also included.

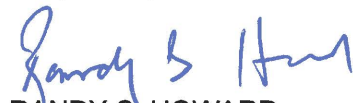
FISCAL IMPACT:

This report has no direct budget impact to the Agency.

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.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments:

- April 30, 2023 Financial Report

**NORTHERN CALIFORNIA POWER AGENCY
and ASSOCIATED POWER CORPORATIONS**

**Schedule of Disbursements
(Unaudited)**

For the Month of April 2023

Operations:

Geothermal	\$ 2,233,098
Hydroelectric	3,344,666
CT#1 Combustion Turbines	336,735
CT#2 STIG	453,831
Lodi Energy Center	15,385,478
NCPA Operating	48,332,568
Total	<u>\$ 70,086,376</u>

**NORTHERN CALIFORNIA POWER AGENCY
REPORT OF BUDGET VS. ACTUAL COST
FOR THE PERIOD ENDED APRIL 30, 2023**

PERCENT OF YEAR ELAPSED 83%
--

	This Month	Actual Year To-Date	FY 2023 Budget	% Used	
<u>GENERATION RESOURCES</u>					
<u>NCPA Plants</u>					
Hydroelectric					
Other Plant Cost	\$ 1,527,698	\$ 22,035,603	\$ 19,702,876	112%	(a)
Debt Service (Net)	2,984,264	29,842,639	35,811,167	83%	
Annual Budget Cost	4,511,962	51,878,242	55,514,043	93%	
<u>Geothermal</u>					
Other Plant Cost	4,481,755	33,179,507	38,159,673	87%	(b)
Debt Service (Net)	289,443	2,894,425	3,473,310	83%	
Annual Budget Cost	4,771,198	36,073,932	41,632,983	87%	
<u>Combustion Turbine No. 1</u>					
Fuel	59,893	1,114,492	1,213,785	92%	(c)
Other Plant Cost	596,392	3,962,705	4,387,786	90%	(d)
Annual Budget Cost	656,285	5,077,197	5,601,571	91%	
<u>Combustion Turbine No. 2 (Stig)</u>					
Fuel and Pipeline Transport Charges	64,157	1,603,434	2,226,656	72%	
Other Plant Cost	172,288	2,054,995	3,050,762	67%	
Debt Service (Net)	423,655	4,236,546	5,083,855	83%	
Annual Budget Cost	660,100	7,894,975	10,361,273	76%	
<u>Lodi Energy Center</u>					
Fuel	553,689	120,733,321	64,819,215	186%	(c)
Other Plant Cost	4,194,299	40,525,607	46,921,420	86%	
Debt Service (Net)	2,166,350	21,663,503	25,996,203	83%	
Annual Budget Cost	6,914,338	182,922,431	137,736,838	133%	
Member Resources - Energy	8,317,761	77,870,645	63,023,618	124%	(e)
Member Resources - Natural Gas	1	2,317,968	2,474,390	94%	(c)
Western Resources	1,513,302	17,373,441	26,100,435	67%	
Market Power Purchases	3,028,866	48,631,659	35,533,176	137%	(f)
Load Aggregation Costs - CAISO	46,302,512	926,434,471	467,468,943	198%	(g)
Net GHG Obligations	-	3,505,120	920,891	381%	(h)
	76,676,325	1,359,980,081	846,368,161	161%	
<u>TRANSMISSION</u>					
<u>Independent System Operator</u>					
Grid Management Charge	297,085	2,924,502	2,575,487	114%	(i)
Wheeling Access Charge	11,949,508	135,437,840	158,081,389	86%	
Ancillary Services	652,615	8,480,498	5,941,763	143%	(j)
Other ISO Charges/(Credits)	3,725,422	(18,151,407)	2,183,731	-831%	(k)
	16,624,630	128,691,433	168,782,370	76%	
<u>MANAGEMENT SERVICES</u>					
<u>Legislative & Regulatory</u>					
Legislative Representation	178,781	1,529,677	2,231,485	69%	
Regulatory Representation	42,265	575,707	714,822	81%	
Western Representation	23,522	226,430	722,876	31%	
Customer Programs	40,845	412,729	614,825	67%	
Judicial Action	(14,100)	495,289	460,000	108%	(l)
<u>Power Management</u>					
System Control & Load Dispatch	556,276	5,875,207	7,504,041	78%	
Forecasting, Planning, Prescheduling & Trading	218,308	2,278,142	3,044,442	75%	
Industry Restructuring & Regulatory Affairs	37,823	377,620	438,471	86%	
Contract Admin, Interconnection Svcs & External Affairs	86,686	767,415	1,031,800	74%	
Gas Purchase Program	4,756	44,876	76,674	59%	
Market Purchase Project	6,785	65,102	112,143	58%	

Management Services continued on next page

**NORTHERN CALIFORNIA POWER AGENCY
REPORT OF BUDGET VS. ACTUAL COST
FOR THE PERIOD ENDED APRIL 30, 2023**

PERCENT OF YEAR ELAPSED 83%

	This Month	Actual Year To-Date	FY 2023 Budget	% Used	
Energy Risk Management	(38,208)	107,935	149,552	72%	
Settlements	47,546	522,536	1,011,963	52%	
Integrated Systems Support	4,003	241,424	405,072	60%	
Participant Pass Through Costs	127,459	1,246,372	1,665,647	75%	
Support Services	735,208	1,960,045	-	N/A	(m)
	2,057,955	16,726,506	20,183,813	83%	
TOTAL ANNUAL BUDGET COST	95,358,910	1,505,398,020	1,035,334,344	145%	
LESS: THIRD PARTY REVENUE					
Plant ISO Energy Sales	13,812,711	307,459,087	193,457,434	159%	(n)
Member Resource ISO Energy Sales	5,801,043	107,842,127	49,954,453	216%	(o)
Member Owned Generation ISO Energy Sales	11,577,608	202,002,929	118,708,880	170%	(o)
Revenue from Customers	3,739,052	85,887,034	-	N/A	(p)
NCPA Contracts ISO Energy Sales	1,733,305	55,305,919	34,943,730	158%	(o)
Western Resource Energy Sales	3,280,546	14,446,056	26,526,704	54%	
Load Aggregation Energy Sales	11,133,502	165,390,864	-	N/A	(g)
Ancillary Services Sales	72,776	3,765,519	5,513,674	68%	
Transmission Sales	18,396	91,980	110,376	83%	
Western Credits, Interest and Other Income	7,057,260	137,984,659	43,537,481	317%	(q)
	58,226,199	1,080,176,174	472,752,732	228%	
NET ANNUAL BUDGET COST TO PARTICIPANTS	\$ 37,132,711	\$ 425,221,846	\$ 562,581,612	76%	

- (a) Increase due to higher than budgeted CA ISO energy charges which include higher than budgeted imbalance energy settlements. Hydro generation is at 256% of YTD budgeted MWh as of 04/30/2023.
- (b) Increase due to higher than budgeted costs for contract labor and Plant 2 maintenance. Extreme weather conditions during the year requiring extraordinary work has been cited by the Geothermal team in a May budget augmentation request to address overages.
- (c) Increase due to higher than budgeted costs for fuel at LEC and CT 1. Gas prices have almost doubled year-over-year to average \$10 per mmbTU. Gas prices in winter 2022/2023 peaked at over \$40 per mmbTU.
- (d) Increase due to higher than budgeted costs for CA ISO energy purchases. Costs were budgeted at approximately \$486 per MWh, and costs are currently about \$817 per MWh, a 68% YTD increase over budget.
- (e) Increase due to higher than anticipated volume of market purchases and unbudgeted purchases for members.
- (f) Increase due to higher than anticipated price per MWh for market purchases. Market purchases were budgeted at approximately \$61 per MWh and costs are currently about \$112 per MWh, an 85% YTD increase over budget.
- (g) Increase due to higher than budgeted energy purchases and unbudgeted energy sales related to CCA (Sonoma Clean Power) and participants.
- (h) Increased costs due to higher than expected needs for GHG Allowance Credits to offset energy imports.
- (i) Increase due to higher than anticipated grid management costs for participants and Sonoma Clean Power.
- (j) Increase due to greater than expected spinning, non-spinning, reg up and down obligation settlements for the NCPA pool.
- (k) Net credit due to revenue from unbudgeted congestion revenue rights and unbudgeted real-time settlement credits.
- (l) Increase to unbudgeted outside service costs associated with GEO cotenancy litigation.
- (m) Support services includes training services, vendor services and other services to support participants as requested.
- (n) Increase due to higher than budgeted rates for CA ISO Energy Sales.
- (o) Higher revenues due to higher energy prices and higher than budgeted contract energy.
- (p) Revenue from CCA results from charges for energy purchases, grid management, and ancillary services that are billed and settled with customers monthly.
- (q) Increase due to higher than budgeted revenue from third party market sales, as well as the sale of resource adequacy credits.

COMBINED STATEMENTS OF NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

UNAUDITED

	April 30	
	2023	2022
	(in thousands)	
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 127,695	\$ 30,603
Investments	29,542	35,164
Accounts receivable		
Participants	48	-
Other	3,390	1,164
Interest receivable	756	704
Inventory and supplies	6,438	8,661
Prepaid expenses	8,372	4,694
TOTAL CURRENT ASSETS	176,241	80,990
RESTRICTED ASSETS		
Cash and cash equivalents	62,005	56,576
Investments	202,570	192,734
Interest receivable	99	52
TOTAL RESTRICTED ASSETS	264,674	249,362
ELECTRIC PLANT		
Electric plant in service	1,602,128	1,500,092
Less: accumulated depreciation	(1,107,468)	(1,073,267)
	494,660	426,825
Construction work-in-progress	1,552	-
TOTAL ELECTRIC PLANT	496,212	426,825
OTHER ASSETS		
Regulatory assets	165,241	193,927
Investment in associated company	265	265
TOTAL ASSETS	1,102,633	951,369
DEFERRED OUTFLOWS OF RESOURCES		
Excess cost on refunding of debt	913	871
Pension and OPEB deferrals	14,141	18,099
Asset retirement obligations	61,659	61,784
TOTAL DEFERRED OUTFLOWS OF RESOURCES	76,713	80,754
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$ 1,179,346	\$ 1,032,123

COMBINED STATEMENTS OF NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

UNAUDITED

	April 30	
	2023	2022
	(in thousands)	
LIABILITIES		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	\$ 127,757	\$ 42,513
Member advances	993	993
Operating reserves	22,112	25,846
Current portion of long-term debt	54,798	45,450
Accrued interest payable	11,278	8,662
TOTAL CURRENT LIABILITIES	216,938	123,464
NON-CURRENT LIABILITIES		
Net pension and OPEB liabilities	30,112	62,959
Operating reserves and other deposits	157,388	148,564
Interest rate swap liability	-	-
Asset retirement obligations	70,990	69,420
Long-term debt, net	555,023	515,501
TOTAL NON-CURRENT LIABILITIES	813,513	796,444
TOTAL LIABILITIES	1,030,451	919,908
DEFERRED INFLOWS OF RESOURCES		
Regulatory credits	95,272	87,411
Pension and OPEB deferrals	19,950	2,187
TOTAL DEFERRED INFLOWS OF RESOURCES	115,222	89,598
NET POSITION		
Net investment in capital assets	(109,937)	(117,489)
Restricted	51,910	42,978
Unrestricted	91,700	97,128
TOTAL NET POSITION	33,673	22,617
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	\$ 1,179,346	\$ 1,032,123

**COMBINED STATEMENTS OF REVENUES, EXPENSES
AND CHANGES IN NET POSITION**

**NORTHERN CALIFORNIA POWER AGENCY
AND ASSOCIATED POWER CORPORATIONS**

UNAUDITED

	For the Ten Months Ended April 30,	
	2023	2022
	(in thousands)	
OPERATING REVENUES		
Participants	\$ 547,958	\$ 424,381
Other Third-Party	474,158	297,498
TOTAL OPERATING REVENUES	1,022,116	721,879
OPERATING EXPENSES		
Purchased power	531,119	336,815
Operations	181,611	117,121
Transmission	195,115	172,769
Depreciation	25,455	25,191
Maintenance	30,104	21,696
Administrative and general	23,973	24,319
TOTAL OPERATING EXPENSES	987,377	697,911
NET OPERATING REVENUES	34,739	23,968
NON OPERATING (EXPENSES) REVENUES		
Interest expense	(17,184)	(20,075)
Interest income	18,042	977
Other	97,979	10,022
TOTAL NON OPERATING EXPENSES	98,837	(9,076)
FUTURE RECOVERABLE AMOUNTS	(20,910)	(16,058)
REFUNDS TO PARTICIPANTS	(95,690)	(3,845)
INCREASE (DECREASE) IN NET POSITION	16,976	(5,011)
NET POSITION, Beginning of year	16,697	27,628
NET POSITION, Period ended	\$ 33,673	\$ 22,617

OTHER FINANCIAL INFORMATION

COMBINING STATEMENT OF NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS (000's omitted)

	April 30, 2023									
	GENERATING & TRANSMISSION RESOURCES						Purchased Power & Transmission	Associated Member Services	Other Agency	Combined
	Geothermal	Hydroelectric	Multiple Capital Facilities	CT No. One	Lodi Energy Center	Transmission No. One				
ASSETS										
CURRENT ASSETS										
Cash and cash equivalents	\$ -	\$ -	\$ 1	\$ 1	\$ 164	\$ -	\$ -	\$ 675	\$ 126,854	\$ 127,695
Investments	-	-	-	-	-	-	-	-	29,542	29,542
Accounts receivable										
Participants	-	-	-	-	-	-	-	-	48	48
Other	-	-	-	-	-	-	2,241	-	1,149	3,390
Interest receivable	139	178	-	-	28	-	82	(1)	330	756
Inventory and supplies	1,495	1,593	323	392	2,635	-	-	-	-	6,438
Prepaid expenses	390	1,021	59	76	951	-	-	42	5,833	8,372
Due from Agency and other programs*	12,839	15,176	3,226	3,726	18,372	-	(806)	9,931	(62,464)	-
TOTAL CURRENT ASSETS	14,863	17,968	3,609	4,195	22,150	-	1,517	10,647	101,292	176,241
RESTRICTED ASSETS										
Cash and cash equivalents	343	4,965	1	-	12,568	-	28,782	-	15,346	62,005
Investments	32,242	53,319	3,600	-	35,649	-	17,666	-	60,094	202,570
Interest receivable	-	11	-	-	88	-	-	-	-	99
TOTAL RESTRICTED ASSETS	32,585	58,295	3,601	-	48,305	-	46,448	-	75,440	264,674
ELECTRIC PLANT										
Electric plant in service	578,553	395,627	65,470	38,100	447,459	7,736	61,427	1,119	6,637	1,602,128
Less: accumulated depreciation	(553,016)	(308,025)	(59,054)	(35,541)	(136,028)	(7,736)	(2,803)	(785)	(4,480)	(1,107,468)
	25,537	87,602	6,416	2,559	311,431	-	58,624	334	2,157	494,660
Construction work-in-progress	-	-	-	-	-	-	-	-	1,552	1,552
TOTAL ELECTRIC PLANT	25,537	87,602	6,416	2,559	311,431	-	58,624	334	3,709	496,212
OTHER ASSETS										
Regulatory assets	-	95,821	-	-	29,242	-	-	-	40,178	165,241
Investment in associated company	-	-	-	-	-	-	-	-	265	265
TOTAL ASSETS	72,985	259,686	13,626	6,754	411,128	-	106,589	10,981	220,884	1,102,633
DEFERRED OUTFLOWS OF RESOURCES										
Excess cost on refunding of debt	338	-	-	-	575	-	-	-	-	913
Pension and OPEB deferrals	-	-	-	-	-	-	-	-	14,141	14,141
Asset retirement obligations	61,290	-	173	-	196	-	-	-	-	61,659
TOTAL DEFERRED OUTFLOWS OF RESOURCES	61,628	-	173	-	771	-	-	-	14,141	76,713
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$ 134,613	\$ 259,686	\$ 13,799	\$ 6,754	\$ 411,899	\$ -	\$ 106,589	\$ 10,981	\$ 235,025	\$ 1,179,346

* Eliminated in Combination

OTHER FINANCIAL INFORMATION

COMBINING STATEMENT OF NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS (000's omitted)

April 30, 2023										
	GENERATING & TRANSMISSION RESOURCES						Purchased Power & Transmission	Associated Member Services	Other Agency	Combined
	Geothermal	Hydroelectric	Multiple Capital Facilities	CT No. One	Lodi Energy Center	Transmission				
LIABILITIES										
CURRENT LIABILITIES										
Accounts payable and accrued expenses	\$ 269	\$ 245	\$ -	\$ 1	\$ 2	\$ -	\$ 26,436	\$ -	\$ 100,804	\$ 127,757
Member advances	791	-	-	-	-	-	-	202	-	993
Operating reserves	1,191	250	617	3,450	16,604	-	-	-	-	22,112
Current portion of long-term debt	3,360	27,275	4,625	-	13,842	-	5,696	-	-	54,798
Accrued interest payable	38	2,845	82	-	8,313	-	-	-	-	11,278
TOTAL CURRENT LIABILITIES	5,649	30,615	5,324	3,451	38,761	-	32,132	202	100,804	216,938
NON-CURRENT LIABILITIES										
Net pension and OPEB liability	-	-	-	-	-	-	-	-	30,112	30,112
Operating reserves and other deposits	1,500	28,601	-	-	712	-	48,885	2,028	75,662	157,388
Asset retirement obligations	70,621	-	173	-	196	-	-	-	-	70,990
Long-term debt, net	3,425	176,788	5,932	-	315,950	-	52,928	-	-	555,023
TOTAL NON-CURRENT LIABILITIES	75,546	205,389	6,105	-	316,858	-	101,813	2,028	105,774	813,513
TOTAL LIABILITIES	81,195	236,004	11,429	3,451	355,619	-	133,945	2,230	206,578	1,030,451
DEFERRED INFLOWS OF RESOURCES										
Regulatory credits	39,223	8,531	1,364	2,762	38,368	-	-	334	4,690	95,272
Pension and OPEB deferrals	-	-	-	-	-	-	-	-	19,950	19,950
TOTAL DEFERRED INFLOWS OF RESOURCES	39,223	8,531	1,364	2,762	38,368	-	-	334	24,640	115,222
NET POSITION										
Net investment in capital assets	19,091	(118,981)	(4,837)	-	(5,210)	-	-	-	-	(109,937)
Restricted	2,700	23,035	3,519	-	12,992	-	9,664	-	-	51,910
Unrestricted	(7,596)	111,097	2,324	541	10,130	-	(37,020)	8,417	3,807	91,700
TOTAL NET POSITION	14,195	15,151	1,006	541	17,912	-	(27,356)	8,417	3,807	33,673
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	\$ 134,613	\$ 259,686	\$ 13,799	\$ 6,754	\$ 411,899	\$ -	\$ 106,589	\$ 10,981	\$ 235,025	\$ 1,179,346

OTHER FINANCIAL INFORMATION

COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS (000's omitted)

For the Ten Months Ended April 30, 2023										
GENERATING & TRANSMISSION RESOURCES										
	Geothermal	Hydroelectric	Multiple Capital Facilities	CT No. One	Lodi Energy Center	Transmission	Purchased Power & Transmission	Associated Member Services	Other Agency	Combined
OPERATING REVENUES										
Participants	\$ (28,744)	\$ (8,372)	\$ (2,042)	\$ 839	\$ 20,695	\$ -	\$ 542,775	\$ 21,473	\$ 1,334	\$ 547,958
Other Third-Party	64,261	75,331	2,540	3,893	165,956	-	159,814	2,363	-	474,158
TOTAL OPERATING REVENUES	35,517	66,959	498	4,732	186,651	-	702,589	23,836	1,334	1,022,116
OPERATING EXPENSES										
Purchased power	927	6,962	425	641	7,842	-	514,322	-	-	531,119
Operations	15,926	4,287	2,075	1,880	143,707	-	2,318	11,418	-	181,611
Transmission	207	223	4	6	880	-	193,791	4	-	195,115
Depreciation	3,208	7,949	1,838	260	11,793	-	-	96	311	25,455
Maintenance	12,091	10,209	505	1,583	5,639	-	-	77	-	30,104
Administrative and general	5,748	4,094	621	634	4,675	-	-	6,161	2,040	23,973
Intercompany (sales) purchases, net*	(612)	215	42	73	290	-	-	(8)	-	-
TOTAL OPERATING EXPENSES	37,495	33,939	5,510	5,077	174,826	-	710,431	17,748	2,351	987,377
NET OPERATING REVENUES	(1,978)	33,020	(5,012)	(345)	11,825	-	(7,842)	6,088	(1,017)	34,739
NON OPERATING (EXPENSES) REVENUES										
Interest expense	(317)	(6,022)	35	-	(10,880)	-	-	-	-	(17,184)
Interest income	3,080	2,040	112	65	2,394	-	2,687	700	6,964	18,042
Other	4	6	7,682	-	8,024	-	-	81,880	383	97,979
TOTAL NON OPERATING (EXPENSES) REVENUES	2,767	(3,976)	7,829	65	(462)	-	2,687	82,580	7,347	98,837
FUTURE RECOVERABLE AMOUNTS	(825)	(17,123)	(2,486)	-	(476)	-	-	-	-	(20,910)
REFUNDS TO PARTICIPANTS	(1,675)	103	(165)	(1,219)	82	-	(2,297)	(85,750)	(4,769)	(95,690)
INCREASE (DECREASE) IN NET POSITION	(1,711)	12,024	166	(1,499)	10,969	-	(7,452)	2,918	1,561	16,976
NET POSITION, Beginning of year	15,906	3,127	840	2,040	6,943	-	(19,904)	5,499	2,246	16,697
NET POSITION, Period ended	\$ 14,195	\$ 15,151	\$ 1,006	\$ 541	\$ 17,912	\$ -	\$ (27,356)	\$ 8,417	\$ 3,807	\$ 33,673

* Eliminated in Combination

NORTHERN CALIFORNIA POWER AGENCY & ASSOCIATED POWER CORPORATIONS
AGED ACCOUNTS RECEIVABLE
April 30, 2023

<u>Status</u>	<u>Participant / Customer</u>	<u>Description</u>	<u>Amount</u>
CURRENT			\$ 3,127,456
PAST DUE:			
1 - 30	City of Burbank	Vendor Services	18,248 *
31 - 60			
61 - 90			
91 - 120			
Over 120 Days	Calpine Geysers	Effluent Adj (Mar'18 - Dec'19)	292,665
PARTICIPANT and OTHER RECEIVABLES (net)			<u>\$ 3,438,369</u>

** Denotes items paid/applied after April 30, 2023.*

**NORTHERN CALIFORNIA POWER AGENCY
and ASSOCIATED POWER CORPORATIONS**

**Schedule of Disbursements
(Unaudited)**

For the Month of April 2023

Operations:

Geothermal	\$ 2,233,098
Hydroelectric	3,344,666
CT#1 Combustion Turbines	336,735
CT#2 STIG	453,831
Lodi Energy Center	15,385,478
NCPA Operating	48,332,568
Total	\$ 70,086,376



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: Treasurer's Report for Month Ended April 30, 2023

AGENDA CATEGORY: Consent

FROM:	Sondra Ainsworth <i>SA</i>	METHOD OF SELECTION:	
	Treasurer-Controller		N/A
Division:	Administrative Services		
Department:	Accounting & Finance		

IMPACTED MEMBERS:

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"/>

If other, please specify

RECOMMENDATION:

Recommending the Northern California Power Agency (NCPA) Commission approve the Treasurer's Report for April 30, 2023.

BACKGROUND:

In compliance with Northern California Power Agency (NCPA) policy and State of California Government Code Sections 53601 and 53646(b), the following monthly report is submitted for your information and acceptance.

Cash – At month end cash totaled \$414,431 of which approximately \$1,685 was applicable to Special and Reserve Fund Deposits, \$2,938 to Debt Service and \$409,808 to Operations and other.

The cash balance held at U.S. Bank includes outstanding checks that have not yet cleared. This cash balance is invested nightly in a fully collateralized (U.S. Government Securities) repurchase agreement.

Investments – The carrying value of NCPA's investment portfolio totaled \$409,167,738 at month end. The current market value of the portfolio totaled \$396,498,579.

The overall portfolio had a combined weighted average interest rate of 3.424% with a bond equivalent yield (yield to maturity) of 3.472%. Investments with a maturity greater than one year totaled \$171,609,000. April maturities totaled \$24,609,257 and monthly receipts totaled \$53 million. During the month \$18 million was invested.

Funds not required to meet annual cash flow are reinvested and separately reported as they occur.

Interest Rates – During the month, rates on 90-day T-Bills increased 28 basis points from 4.87% to 5.15% and rates on one-year T-Bills increased 14 basis points from 4.58% to 4.72%.

To the best of my knowledge and belief, all securities held by NCPA as of April 30, 2023 are in compliance with NCPA's investment policy. There are adequate cash flow and investment maturities to meet next month's cash requirements.

FISCAL IMPACT:

This report has no direct budget impact to NCPA.

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.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachment: Treasurer's Report April 30, 2023

NORTHERN CALIFORNIA POWER AGENCY

TREASURER'S REPORT

APRIL 30, 2023

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**Northern California Power Agency
Treasurer's Report
Cash & Investment Balance
April 30, 2023**

	CASH	INVESTMENTS	TOTAL	PERCENT
NCPA FUNDS				
Operating	\$ 396,151	\$ 191,602,887	\$ 191,999,038	46.88%
Special Deposits	13,657	-	13,657	0.00%
Debt Service	2,938	53,028,642	53,031,580	12.95%
Special & Reserve	1,685	164,536,209	164,537,894	40.17%
	<u>\$ 414,431</u>	<u>\$ 409,167,738</u>	<u>\$ 409,582,169</u>	<u>100.00%</u>

Portfolio Investments at Market Value

\$ 396,498,579

NOTE A - Investment amounts shown at book carrying value.

**Northern California Power Agency
Treasurer's Report
Cash Activity Summary
April 30, 2023**

	RECEIPTS			EXPENDITURES			CASH INCREASE / (DECREASE)
	OPS/CONSTR	INTEREST (NOTE B)	INVESTMENTS (NOTE A)	OPS/CONSTR	INVESTMENTS (NOTE B)	INTER-COMPANY/ FUND TRANSFERS	
NCPA FUNDS							
Operating	\$ 50,610,686	\$ 657,299	\$ 23,426,507	\$ (36,735,552)	\$ (3,586,991)	\$ (34,545,733)	\$ (173,784)
Special Deposits	2,766,493	-	-	(24,468,186)	-	21,701,806	113
Debt Service	-	1	367	-	(8,878,689)	8,876,681	(1,640)
Special & Reserve	-	286,045	1,182,383	-	(5,435,674)	3,967,246	-
	\$ 53,377,179	\$ 943,345	\$ 24,609,257	\$ (61,203,738)	\$ (17,901,354)	\$ -	\$ (175,311)

NOTE A -Investment amounts shown at book carrying value.

NOTE B -Net of accrued interest purchased on investments.

**Northern California Power Agency
Treasurer's Report
Investment Activity Summary
April 30, 2023**

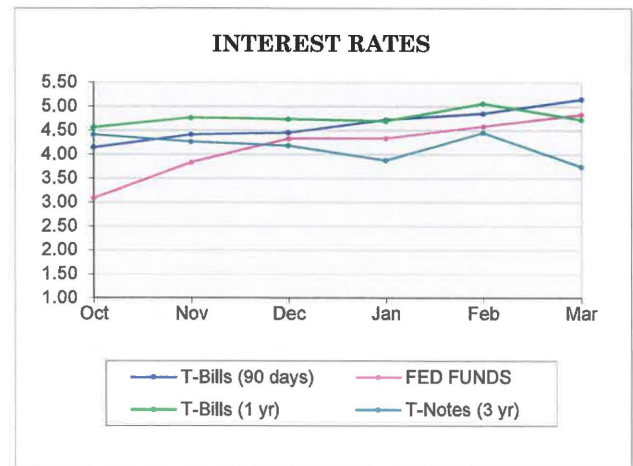
	PURCHASED	SOLD OR MATURED	(NON-CASH) DISC/(PREM) AMORT	(NON-CASH) GAIN/(LOSS) ON SALE	INVESTMENTS	
					TRANSFERS	INCREASE / (DECREASE)
NCPA FUNDS						
Operating	\$ 3,586,991	\$ (23,426,507)	\$ (1,438)	\$ -	\$ -	\$ (19,840,954)
Special Deposits	-	-	-	-	-	-
Debt Service	8,878,689	(367)	178,551	-	-	9,056,873
Special & Reserve	5,435,674	(1,182,383)	14,179	(154)	-	4,267,316
	<u>\$ 17,901,354</u>	<u>\$ (24,609,257)</u>	<u>\$ 191,292</u>	<u>\$ (154)</u>	<u>\$ -</u>	<u>\$ (6,516,765)</u>
Less Non- Cash Activity						
Disc/(Prem) Amortization & Gain/(Loss) on Sale						<u>(191,138)</u>
Net Change in Investment --Before Non-Cash Activity						<u><u>\$ (6,707,903)</u></u>

NOTE A -Investment amounts shown at book carrying value.

Northern California Power Agency
Interest Rate/Yield Analysis
April 30, 2023

	WEIGHTED AVERAGE INTEREST RATE	BOND EQUIVALENT YIELD
OVERALL COMBINED	3.424%	3.472%
OPERATING FUNDS:	3.477%	3.454%
PROJECTS:		
Geothermal	2.148%	2.234%
Capital Facilities	4.728%	4.896%
Hydroelectric	3.756%	3.926%
Lodi Energy Center	3.623%	3.679%

KEY INTEREST RATES		
	CURRENT	PRIOR YEAR
Fed Fds (Overnight)	4.83%	0.33%
T-Bills (90da.)	5.15%	0.85%
Agency Disc (90da.)	5.04%	1.00%
T-Bills (1yr.)	4.72%	2.03%
Agency Disc (1yr.)	4.71%	2.18%
T-Notes (3yr.)	3.74%	2.79%

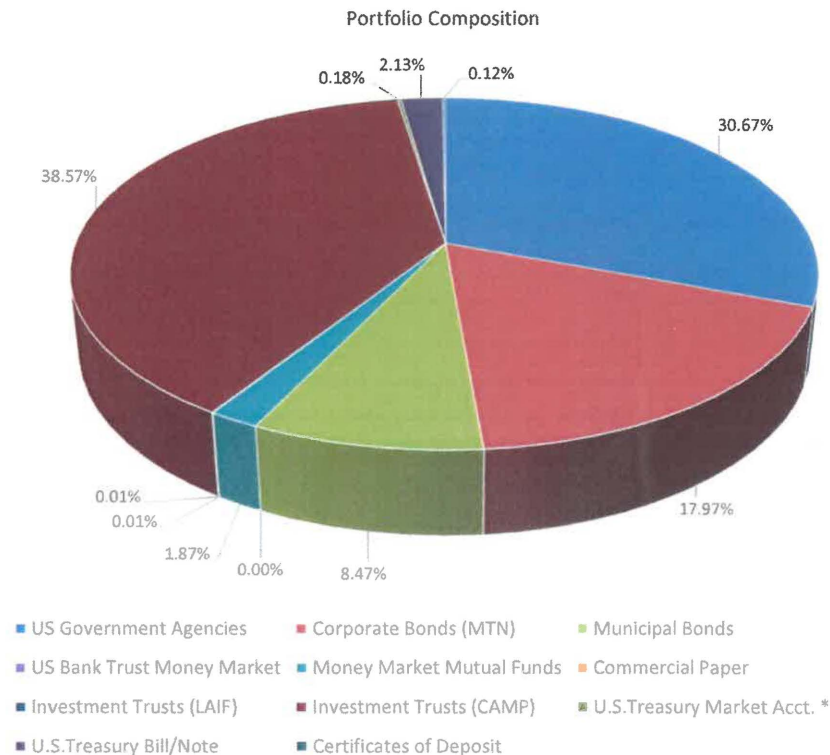


**Northern California Power Agency
Total Portfolio
Investment Maturities Analysis
April 30, 2023**

Type	0-7 Days	8-90 Days	91-180 Days	181-270 Days	271-365 Days	1-5 Years	6-10 Years	Total	Percent
US Government Agencies	\$ -	\$ 47,419	\$ 3,213	\$ 500	\$ 1,300	\$ 63,698	\$ 9,747	\$ 125,877	30.67%
Corporate Bonds (MTN)	550	1,500	500	500	2,068	68,649	-	73,767	17.97%
Municipal Bonds	-	2,640	4,300	1,000	-	24,185	2,660	34,785	8.47%
US Bank Trust Money Market	4	-	-	-	-	-	-	4	0.00%
Money Market Mutual Funds	7,667	-	-	-	-	-	-	7,667	1.87%
Commercial Paper	25	-	-	-	-	-	-	25	0.01%
Investment Trusts (LAIF)	51	-	-	-	-	-	-	51	0.01%
Investment Trusts (CAMP)	158,334	-	-	-	-	-	-	158,334	38.57%
U.S.Treasury Market Acct. *	724	-	-	-	-	-	-	724	0.18%
U.S.Treasury Bill/Note	-	6,017	-	37	-	2,670	-	8,724	2.13%
Certificates of Deposit	-	10	500	-	-	-	-	510	0.12%
Total Dollars	\$ 167,355	\$57,586	\$8,513	\$2,037	\$ 3,368	\$159,202	\$12,407	\$ 410,468	100.00%
Total Percents	40.77%	14.03%	2.07%	0.50%	0.82%	38.79%	3.02%	100.00%	

Investments are shown at Face Value, in thousands.

* The cash balance held at US Bank includes outstanding checks that have not yet cleared. This cash balance is invested nightly in a fully collateralized (U.S. Government Securities) repurchase agreement. Cash held by US Bank is invested nightly in fully collateralized U.S. Treasury Securities.



NORTHERN CALIFORNIA POWER AGENCY

Detail Report Of Investments

APPENDIX

Note: **This appendix has been prepared to comply with
Government Code section 53646.**



Northern California Power Agency
Treasurer's Report
04/30/2023

Operating

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
US Bank, N.A.	USB	25,000	2.500	10/07/2022	25,000		1	2.500	25,000	SYS70101	70101	25,000
First American Funds	USB	7,667,000	4.606	10/12/2022	7,667,000		1	4.606	7,667,000	SYS70102	70102	7,667,000
Local Agency Investm	LAIF	51,330	2.697		51,330		1	2.697	51,330	SYS70000	70000	51,330
First American Govt.	USBGC	15,868	4.610		15,868		1	4.610	15,868	SYS70014	70014	15,868
US Bank	USB	396,151	0.001		396,151		1	0.001	396,151	SYS70050	70050	396,151
US Bank	USB	0	0.010	08/24/2017	0		1	0.010	0	SYS70056	70056	0
California Asset Mgm	CMP	118,673,065	4.730	10/19/2018	118,673,065		1	4.730	118,673,065	SYS70070	70070	118,673,065
Hershey Company	USBGC	500,000	3.375	06/12/2018	503,125	05/15/2023	14	3.236	499,685	427866AZ1	26615	500,025
Commonwealth of Mass	USBGC	500,000	0.508	07/09/2020	500,000	07/01/2023	61	0.507	496,500	57582RF84	27029	500,000
US Bank	USB	10,000	0.048	04/07/2023	10,000	07/07/2023	67	0.048	10,000	SYS30333	30333	10,000
JP Morgan	USBGC	500,000	3.875	02/15/2019	514,550	02/01/2024	276	3.561	495,405	46625HJT8	26760	502,200
Federal Farm Credit	USBGC	200,000	5.125	02/28/2023	199,964	02/28/2024	303	5.143	200,308	3133EPCB9	27554	199,970
American Honda Finan	USBGC	185,000	0.550	04/17/2023	176,124	07/12/2024	438	0.000	175,857	02665WDS7	27575	176,403
East Side Union High	USBGC	500,000	0.820	10/29/2020	500,000	08/01/2024	458	0.878	476,085	275282PR6	27105	500,000
CA St Dept of Wtr Re	USBGC	600,000	0.560	08/06/2020	600,000	12/01/2024	580	0.584	561,468	13067WRB0	27055	600,000
US Bank, N.A.	USBGC	500,000	2.800	02/07/2020	522,560	01/27/2025	637	1.846	479,655	90331HMS9	26947	507,890
State of Louisiana	USBGC	260,000	0.697	02/25/2021	260,000	06/15/2025	776	0.730	240,006	546486BV2	27178	260,000
Nashville Met Gov	USBGC	500,000	0.610	02/18/2021	500,000	07/01/2025	792	0.629	459,410	592112UB0	27173	500,000
City of Phoenix AZ	USBGC	500,000	0.959	08/25/2020	500,000	07/01/2025	792	0.990	463,450	71884AF20	27058	500,000
Wisconsin Dept Trans	USBGC	500,000	0.774	07/30/2020	500,000	07/01/2025	792	0.787	463,025	977123X78	27041	500,000
Met Life Glob Fundin	USBGC	1,000,000	0.950	03/04/2022	961,800	07/02/2025	793	2.145	920,020	59217GEJ4	27375	975,097
East Side Union High	USBGC	1,000,000	0.940	10/29/2020	1,000,000	08/01/2025	823	0.992	924,840	275282PS4	27106	1,000,000
Federal National Mtg	USBGC	1,000,000	0.650	12/21/2020	1,005,200	11/18/2025	932	0.542	916,160	3135GA4P3	27137	1,002,699
JP Morgan	USBGC	250,000	0.825	12/22/2020	250,000	12/22/2025	966	0.825	219,373	48128GY53	27138	250,000
Toyota Motor Credit	USBGC	500,000	0.700	01/21/2021	500,000	01/20/2026	995	0.699	457,880	89236THY4	27149	500,000
Federal Home Loan Ba	USBGC	375,000	0.500	02/25/2021	375,000	02/25/2026	1,031	0.500	341,719	3130AKXX9	27179	375,000
Federal Home Loan Ba	USBGC	1,000,000	2.500	02/28/2022	1,000,000	02/27/2026	1,033	2.248	955,870	3130AQZV8	27366	1,000,000
Cisco Systems Inc.	USBGC	102,000	2.950	11/18/2022	98,129	02/28/2026	1,034	4.200	99,025	17275RBC5	27480	98,664
Federal Farm Credit	USBGC	1,100,000	0.800	03/09/2021	1,100,000	03/09/2026	1,043	0.800	999,988	3133EMSU7	27200	1,100,000
United Health Group	USBGC	500,000	1.150	06/28/2021	501,660	05/15/2026	1,110	1.079	458,055	91324PEC2	27230	501,034
Bank of America Corp	USBGC	1,700,000	1.250	05/28/2021	1,700,000	05/28/2026	1,123	1.250	1,484,644	06048WM31	27225	1,700,000
Met Govt Nashville &	UBOC	250,000	1.181	10/14/2021	250,000	07/01/2026	1,157	1.181	226,555	592098X77	27291	250,000
San Diego CA Unif Sc	USBGC	250,000	1.201	10/21/2021	250,000	07/01/2026	1,157	1.201	227,108	797356DF6	27298	250,000
MassMutual Global Fu	USBGC	500,000	1.200	08/02/2021	503,610	07/16/2026	1,172	1.050	446,190	57629WDE7	27247	502,337
County of Bexar TX	USBGC	100,000	1.272	09/23/2021	100,000	08/15/2026	1,202	1.272	89,468	088518NV3	27273	100,000
Federal Home Loan Ba	USBGC	500,000	0.875	08/17/2021	500,000	08/17/2026	1,204	0.875	450,265	3130ANGX2	27252	500,000
JP Morgan	USBGC	1,000,000	1.150	08/17/2021	1,000,000	08/17/2026	1,204	1.150	820,930	48128G4R8	27251	1,000,000
Bank of America Corp	USBGC	750,000	1.250	08/26/2021	750,000	08/26/2026	1,213	1.250	659,475	06048WN22	27255	750,000
Caterpillar Financia	USBGC	500,000	1.150	10/13/2021	498,165	09/14/2026	1,232	1.227	451,955	14913R2Q9	27288	498,743
John Deere Capital C	USBGC	500,000	2.250	10/14/2021	524,355	09/14/2026	1,232	1.225	470,510	24422EVB2	27294	516,691



Northern California Power Agency

Treasurer's Report

04/30/2023

Operating

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Federal Home Loan Ba	USBGC	630,000	0.900	09/28/2021	630,000	09/28/2026	1,246	0.900	565,595	3130ANXS4	27276	630,000
Reliance Standard Li	USBGC	1,500,000	1.512	10/14/2021	1,491,180	09/28/2026	1,246	1.635	1,321,260	75951AAQ1	27292	1,493,934
Paypal Holdings Inc.	USBGC	500,000	2.650	10/14/2021	533,315	10/01/2026	1,249	1.260	473,315	70450YAD5	27293	522,931
TSMC Arizona Corp.	USBGC	1,525,000	1.750	12/08/2021	1,537,993	10/25/2026	1,273	1.567	1,389,656	872898AA9	27330	1,534,273
Public Storage	USBGC	1,910,000	1.500	12/08/2021	1,912,216	11/09/2026	1,288	1.475	1,715,849	74460DAG4	27336	1,911,586
Federal Home Loan Ba	USBGC	50,000	0.800	12/29/2021	50,000	12/29/2026	1,338	1.509	45,954	3130AQER0	27342	50,000
Federal Home Loan Ba	USBGC	3,000,000	1.000	01/28/2022	3,000,000	01/28/2027	1,368	1.691	2,781,210	3130AQN66	27364	3,000,000
Federal Home Loan Ba	USBGC	455,000	4.700	03/17/2023	452,498	06/30/2027	1,521	4.841	448,580	3130ASH44	27559	452,569
Meta Platforms Inc.	USBGC	526,000	3.500	11/21/2022	494,240	08/15/2027	1,567	4.944	510,430	30303M8B1	27483	497,222
Amazon.com Inc	USBGC	600,000	3.150	09/21/2022	573,894	08/22/2027	1,574	4.136	578,046	023135BC9	27455	577,137
Mercedes-Benz Fin. N	USBGC	750,000	4.800	04/14/2023	755,445	03/30/2028	1,795	4.634	755,918	58769JAG2	27572	755,393
Fund Total and Average		\$ 156,406,414	4.110		\$ 156,413,437		205	4.124	\$ 154,055,111			\$ 156,380,212

MPP GHG Auction Acct

Local Agency Investm		0	1.329		0		1	1.329	0	SYS70045	70045	0
California Asset Mgm	CMP	674,905	4.730	09/13/2022	674,905		1	4.730	674,905	SYS70076	70076	674,905
Fund Total and Average		\$ 674,905	4.730		\$ 674,905		1	4.730	\$ 674,905			\$ 674,905

MPP Security Deposit Acct

Local Agency Investm		0	1.329		0		1	1.329	0	SYS70048	70048	0
California Asset Mgm	CMP	0	4.730	10/28/2022	0		1	4.730	0	SYS70078	70078	0
Fund Total and Average		\$ 0	*** **		\$ 0		****	*** **	\$ 0			\$ 0

SCPA Balancing Account

Local Agency Investm	LAIF	0	1.329		0		1	1.329	0	SYS70022	70022	0
First American Govt.	USBGC	1,750	4.610		1,750		1	4.610	1,750	SYS70023	70023	1,750
California Asset Mgm	CMP	17,111,937	4.800	05/27/2022	17,111,937		1	4.800	17,111,937	SYS70072	70072	17,111,937
Pfizer Inc	USBGC	500,000	3.000	06/22/2018	496,550	06/15/2023	45	3.150	498,590	717081DH3	26626	499,915
Federal Farm Credit	USBGC	500,000	5.125	02/28/2023	499,909	02/28/2024	303	5.143	500,770	3133EPCB9	27555	499,925
Memphis Center City	USBGC	500,000	2.948	11/23/2020	550,395	04/01/2025	701	0.600	485,270	586145F74	27113	522,176
State of Wisconsin	USBGC	105,000	0.650	01/30/2023	105,000	05/01/2025	731	0.649	97,610	97705MZH1	27539	105,000
State of Wisconsin	USBGC	295,000	0.650	01/30/2023	295,000	05/01/2025	731	0.649	273,884	97705MZR9	27540	295,000
California St Hlth F	USBGC	500,000	0.952	11/04/2020	500,000	06/01/2025	762	0.952	462,850	13032UXM5	27110	500,000
City of Baltimore	USBGC	500,000	0.845	12/02/2020	500,000	07/01/2025	792	0.932	461,805	059231X39	27125	500,000
Nashville Met Gov	USBGC	500,000	0.610	02/18/2021	500,000	07/01/2025	792	0.610	459,410	592112UB0	27174	500,000
Federal Farm Credit	USBGC	2,045,000	0.530	09/29/2020	2,045,000	09/29/2025	882	0.530	1,873,690	3133EMBJ0	27077	2,045,000
Federal Farm Credit	USBGC	2,050,000	0.530	09/29/2020	2,050,000	09/29/2025	882	0.530	1,878,272	3133EMBH4	27078	2,050,000
Apple Inc.	USBGC	500,000	0.700	02/17/2021	500,000	02/08/2026	1,014	0.699	456,650	037833EB2	27168	500,000



Northern California Power Agency
Treasurer's Report
04/30/2023

SCPA Balancing Account

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Federal Home Loan Ba	USBGC	500,000	0.520	02/12/2021	499,750	02/12/2026	1,018	0.530	451,920	3130AKWA0	27164	499,861
JP Morgan	USBGC	1,000,000	0.750	02/17/2021	1,000,000	02/17/2026	1,023	0.650	888,090	46632FRV9	27171	1,000,000
Federal Home Loan Ba	USBGC	125,000	0.500	02/25/2021	125,000	02/25/2026	1,031	0.500	113,906	3130AKXX9	27180	125,000
Federal Home Loan Ba	USBGC	1,000,000	0.630	02/26/2021	1,000,000	02/26/2026	1,032	0.630	905,800	3130ALB94	27195	1,000,000
Federal Farm Credit	USBGC	1,650,000	0.800	03/09/2021	1,650,000	03/09/2026	1,043	0.800	1,499,982	3133EMSU7	27201	1,650,000
Bank of America Corp	USBGC	500,000	1.200	06/28/2021	500,000	06/25/2026	1,151	1.199	440,055	06048WM64	27227	500,000
MassMutual Global Fu	USBGC	500,000	1.200	08/02/2021	503,610	07/16/2026	1,172	1.050	446,190	57629WDE7	27248	502,337
Bank of America Corp	USBGC	50,000	1.250	08/26/2021	50,000	08/26/2026	1,213	1.250	43,965	06048WN22	27256	50,000
TSMC Arizona Corp.	USBGC	200,000	1.750	12/08/2021	201,704	10/25/2026	1,273	1.567	182,250	872898AA9	27331	201,216
Public Storage	USBGC	275,000	1.500	11/19/2021	274,095	11/09/2026	1,288	1.569	247,046	74460DAG4	27311	274,359
Public Storage	USBGC	250,000	1.500	12/08/2021	250,290	11/09/2026	1,288	1.475	224,588	74460DAG4	27337	250,208
Federal Home Loan Ba	USBGC	100,000	0.800	12/29/2021	100,000	12/29/2026	1,338	1.509	91,907	3130AQER0	27343	100,000
John Deere Capital C	USBGC	525,000	1.700	01/14/2022	524,223	01/11/2027	1,351	1.731	479,981	24422EWA3	27362	524,425
Federal Home Loan Ba	USBGC	300,000	1.000	01/28/2022	300,000	01/28/2027	1,368	1.691	278,121	3130AQN66	27365	300,000
Federal Home Loan Ba	USBGC	500,000	3.000	04/29/2022	500,000	04/29/2027	1,459	4.219	485,685	3130ARR52	27399	500,000
State of Oregon	USBGC	500,000	4.112	03/23/2023	500,000	05/01/2027	1,461	4.110	497,925	68609UBF1	27560	500,000
Alameda County	USBGC	130,000	3.460	08/24/2022	130,000	08/01/2027	1,553	3.509	126,096	010878BF2	27440	130,000
Federal Home Loan Ba	USBGC	370,000	4.200	08/25/2022	370,000	08/25/2027	1,577	4.200	361,594	3130ASVC0	27441	370,000
Blackstone Holdings	USBGC	1,000,000	5.900	02/03/2023	1,047,880	11/03/2027	1,647	4.759	1,025,930	09261BAJ9	27541	1,045,416
Mercedes-Benz Fin. N	USBGC	125,000	4.800	04/14/2023	125,908	03/30/2028	1,795	4.634	125,986	58769JAG2	27573	125,899
Fund Total and Average		\$ 34,708,687	3.185		\$ 34,808,001		522	3.139	\$ 33,479,505			\$ 34,779,424

General Operating Reserve

Local Agency Investm	LAIF	0	1.329		0	1	1.329	0	SYS70000	70002	0	
First American Govt.	USBGC	44,644	4.610		44,644	1	4.610	44,644	SYS70019	70019	44,644	
US Bank	USB	0	0.000	07/01/2022	0	1	0.000	0	SYS70051	70051	0	
California Asset Mgm	CMP	15,302,251	4.800	12/14/2018	15,302,251	1	4.800	15,302,251	SYS70071	70071	15,302,251	
Arizona Board of Reg	USBGC	1,785,000	2.011	04/17/2020	1,818,897	06/01/2023	31	1.387	1,780,573	040484VN4	26984	1,785,905
Walmart, Inc.	USBGC	500,000	3.400	02/07/2019	510,960	06/26/2023	56	2.864	498,685	931142EK5	26758	500,382
Montgomery Water Wor	USBGC	2,145,000	1.799	04/17/2020	2,200,234	09/01/2023	123	1.020	2,122,842	613105KV6	26985	2,150,460
Pfizer Inc	USBGC	500,000	3.200	01/30/2019	506,250	09/15/2023	137	2.908	496,355	717081EN9	26738	500,503
Honolulu City and Co	USBGC	1,770,000	2.141	04/17/2020	1,837,189	10/01/2023	153	1.020	1,749,008	4386705V9	26983	1,778,102
Citibank NA	USBGC	500,000	3.650	02/07/2019	507,490	01/23/2024	267	3.319	494,360	17325FAS7	26756	501,099
JP Morgan	USBGC	500,000	3.875	02/07/2019	515,120	02/01/2024	276	3.535	495,405	46625HJT8	26757	502,276
US Bank, N.A.	USBGC	440,000	3.375	10/31/2019	462,862	02/05/2024	280	2.093	432,947	91159HHV5	26906	444,084
JP Morgan	USBGC	1,000,000	1.514	05/27/2020	1,006,120	06/01/2024	397	1.356	996,620	46647PBQ8	27007	1,001,653
East Side Union High	USBGC	565,000	0.820	10/29/2020	565,000	08/01/2024	458	0.820	537,976	275282PR6	27107	565,000
Honolulu City and Co	USBGC	1,500,000	1.832	04/13/2020	1,522,710	08/01/2024	458	1.058	1,444,305	438687KT1	26980	1,506,602
California State Uni	USBGC	250,000	0.685	09/17/2020	250,000	11/01/2024	550	0.665	235,075	13077DMK5	27072	250,000
Federal Home Loan Ba	USBGC	1,820,000	2.750	03/25/2020	1,981,288	12/13/2024	592	0.830	1,771,260	3130A3GE8	26962	1,875,283
US Bank, N.A.	USBGC	500,000	2.800	02/07/2020	522,560	01/27/2025	637	1.846	479,655	90331HMS9	26951	507,890



Northern California Power Agency

Treasurer's Report

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General Operating Reserve

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
W W Grainger Inc.	USBGC	500,000	1.850	04/30/2020	516,000	02/15/2025	656	1.161	477,030	384802AE4	27000	505,973
W W Grainger Inc.	USBGC	500,000	1.850	05/21/2020	514,500	02/15/2025	656	1.217	477,030	384802AE4	27005	505,480
Memphis Center City	USBGC	500,000	2.948	11/23/2020	550,395	04/01/2025	701	0.600	485,270	586145F74	27114	522,176
Tulsa County OK Ind.	USBGC	1,000,000	1.500	05/26/2020	1,016,450	04/01/2025	701	1.038	947,810	899559QD3	27006	1,006,505
City of Huntsville A	USBGC	515,000	2.750	11/06/2020	560,351	05/01/2025	731	0.750	497,449	447025A56	27112	535,218
Honeywell Internatio	USBGC	1,000,000	1.350	06/03/2020	1,023,560	06/01/2025	762	0.866	940,680	438516CB0	27008	1,009,828
County of Jasper IA	USBGC	420,000	2.350	06/11/2020	443,558	06/01/2025	762	1.299	401,814	471376FJ7	27011	429,871
Precision Castparts	USBGC	1,500,000	3.250	06/25/2020	1,667,985	06/15/2025	776	1.033	1,469,955	740189AM7	27017	1,571,699
JP Morgan	USBGC	750,000	1.050	06/23/2020	750,000	06/23/2025	784	1.050	688,380	48128GU40	27024	750,000
City of Baltimore	USBGC	500,000	0.845	12/02/2020	500,000	07/01/2025	792	0.845	461,805	059231X39	27126	500,000
Wisconsin Dept Trans	USBGC	500,000	0.774	07/30/2020	500,000	07/01/2025	792	0.774	463,025	977123X78	27042	500,000
Met Life Glob Fundin	USBGC	4,000,000	0.950	03/04/2022	3,847,200	07/02/2025	793	2.145	3,680,080	59217GEJ4	27376	3,900,387
East Side Union High	USBGC	815,000	0.940	10/29/2020	815,000	08/01/2025	823	0.940	753,745	275282PS4	27108	815,000
Federal National Mtg	USBGC	1,000,000	0.600	08/18/2020	1,000,000	08/18/2025	840	0.600	920,850	3136G4G72	27056	1,000,000
Federal Agricultural	USBGC	1,000,000	0.570	09/17/2020	1,000,000	09/17/2025	870	0.570	918,010	31422BV23	27071	1,000,000
Federal Farm Credit	USBGC	2,000,000	0.530	09/29/2020	2,000,000	09/29/2025	882	0.530	1,832,460	3133EMBH4	27079	2,000,000
Federal Farm Credit	USBGC	1,720,000	0.530	09/29/2020	1,720,000	09/29/2025	882	0.530	1,575,916	3133EMBJ0	27080	1,720,000
Federal Home Loan Ba	USBGC	1,000,000	0.520	09/29/2020	1,000,000	09/29/2025	882	0.520	916,010	3130AKAZ9	27081	1,000,000
Federal Home Loan Mt	USBGC	500,000	0.540	10/27/2020	500,000	10/27/2025	910	0.540	457,405	3134GW4Z6	27104	500,000
Bank of America Corp	USBGC	1,000,000	0.850	11/25/2020	1,000,000	11/25/2025	939	0.798	884,120	06048WK41	27122	1,000,000
Federal Farm Credit	USBGC	500,000	0.560	12/01/2020	500,000	12/01/2025	945	0.560	455,635	3133EMJC7	27124	500,000
Guardian Life	USBGC	1,520,000	0.875	05/05/2021	1,507,384	12/10/2025	954	1.060	1,372,408	40139LBC6	27223	1,512,842
JP Morgan	USBGC	250,000	0.825	12/22/2020	250,000	12/22/2025	966	0.825	219,373	48128GY53	27139	250,000
Federal National Mtg	USBGC	500,000	0.640	12/30/2020	501,000	12/30/2025	974	0.599	455,685	3135G06Q1	27141	500,533
Apple Inc.	USBGC	500,000	0.700	02/17/2021	500,000	02/08/2026	1,014	0.699	456,650	037833EB2	27169	500,000
JP Morgan	USBGC	1,000,000	0.750	02/17/2021	1,000,000	02/17/2026	1,023	0.650	888,090	46632FRV9	27172	1,000,000
Charles Schwab Corp	USBGC	630,000	0.900	04/30/2021	625,407	03/11/2026	1,045	1.054	557,834	808513BF1	27220	627,298
Federal Home Loan Ba	USBGC	1,000,000	0.790	03/25/2021	997,500	03/16/2026	1,050	0.841	908,430	3130ALEL4	27203	998,555
Federal Home Loan Ba	USBGC	175,000	0.975	08/11/2022	157,876	03/23/2026	1,057	3.330	159,877	3130ALGJ7	27438	161,295
Federal Home Loan Ba	USBGC	1,000,000	1.010	03/30/2021	1,000,000	03/30/2026	1,064	1.010	913,510	3130ALTT1	27213	1,000,000
Oregon State Dept o	USBGC	500,000	1.119	04/27/2021	500,000	04/01/2026	1,066	1.119	456,760	68607V2Q7	27216	500,000
Federal Home Loan Ba	USBGC	500,000	1.400	04/21/2021	500,000	04/21/2026	1,086	1.084	463,170	3130ALXR0	27215	500,000
United Health Group	USBGC	550,000	1.150	06/28/2021	551,826	05/15/2026	1,110	1.079	503,861	91324PEC2	27232	551,137
Bank of America Corp	USBGC	1,108,000	1.250	05/28/2021	1,108,000	05/28/2026	1,123	1.250	967,639	06048VWM31	27226	1,108,000
Bank of America Corp	USBGC	1,250,000	1.200	06/28/2021	1,250,000	06/25/2026	1,151	1.199	1,100,138	06048VWM64	27228	1,250,000
State University of	USBGC	370,000	1.591	12/02/2021	370,000	07/01/2026	1,157	1.590	339,630	65000BGU6	27329	370,000
MassMutual Global Fu	USBGC	1,000,000	1.200	08/02/2021	1,007,220	07/16/2026	1,172	1.050	892,380	57629WDE7	27249	1,004,674
Home Depot Inc.	USBGC	415,000	2.125	04/12/2022	400,052	09/15/2026	1,233	3.000	390,009	437076BN1	27387	403,608
John Deere Capital C	USBGC	100,000	1.300	10/18/2021	100,313	10/13/2026	1,261	1.235	90,635	24422EVW6	27297	100,217
Nationwide Bldg Soci	USBGC	2,035,000	1.500	06/16/2022	1,792,286	10/13/2026	1,261	4.569	1,801,606	63859UBH5	27420	1,841,390
TSMC Arizona Corp.	USBGC	850,000	1.750	12/08/2021	857,242	10/25/2026	1,273	1.567	774,563	872898AA9	27333	855,169
Public Storage	USBGC	1,585,000	1.500	11/15/2021	1,585,745	11/09/2026	1,288	1.490	1,423,885	74460DAG4	27308	1,585,527



Northern California Power Agency

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General Operating Reserve

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Public Storage	USBGC	365,000	1.500	11/19/2021	363,799	11/09/2026	1,288	1.569	327,898	74460DAG4	27312	364,149
Public Storage	USBGC	1,064,000	1.500	12/08/2021	1,065,234	11/09/2026	1,288	1.475	955,844	74460DAG4	27339	1,064,884
JP Morgan	USBGC	1,200,000	1.500	11/30/2021	1,200,000	11/30/2026	1,309	1.500	1,060,548	48130UZH1	27313	1,200,000
Federal Home Loan Ba	USBGC	150,000	0.800	12/29/2021	150,000	12/29/2026	1,338	1.509	137,861	3130AQER0	27345	150,000
John Deere Capital C	USBGC	438,000	1.700	01/14/2022	437,352	01/11/2027	1,351	1.731	400,442	24422EWA3	27363	437,520
Federal Home Loan Ba	USBGC	500,000	3.375	04/28/2022	500,000	01/28/2027	1,368	3.375	481,720	3130ARP62	27398	500,000
Amazon.com Inc	USBGC	1,030,000	3.300	06/16/2022	993,208	04/13/2027	1,443	4.123	1,001,212	023135CF1	27419	999,880
TSMC Arizona Corp.	USBGC	1,770,000	3.875	05/26/2022	1,789,399	04/22/2027	1,452	3.628	1,742,016	872898AF8	27404	1,785,719
Qualcomm Inc	USBGC	1,035,000	3.250	08/16/2022	995,059	05/20/2027	1,480	4.122	1,002,625	747525AU7	27421	1,002,151
State of Connecticut	USBGC	500,000	3.631	06/22/2022	500,000	06/15/2027	1,506	3.631	490,630	20772KQK8	27423	500,000
Meta Platforms Inc.	USBGC	270,000	3.500	11/21/2022	253,697	08/15/2027	1,567	4.944	262,008	30303M8B1	27484	255,228
Amazon.com Inc	USBGC	75,000	3.150	09/21/2022	71,737	08/22/2027	1,574	4.136	72,256	023135BC9	27457	72,142
Fund Total and Average		\$ 75,576,895	2.288		\$ 75,859,910		685	2.198	\$ 71,657,633			\$ 75,440,189
GRAND TOTALS:		\$ 267,366,901	3.477		\$ 267,756,253		381	3.454	\$ 259,867,154.			\$ 267,274,730

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types.
Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 04/30/2023

Callable Dates:

Inv #			Inv #			Inv #		
26906	USBANK	1/5/2024	27113	MEMGEN	Anytime	27225	BAC	Semi-annually
26947	USBANK	Anytime starting 12/27/2024	27114	MEMGEN	Anytime	27226	BAC	Semi-annually
26951	USBANK	Anytime starting 12/27/2024	27124	FFCB	Anytime	27227	BAC	Semi-annually
26980	HON	Anytime	27125	BALGEN	Anytime	27228	BAC	Semi-annually
26983	HON	Anytime	27126	BALGEN	Anytime	27251	JPM	Annually starting 8/17/2023
26984	AZSHGR	Anytime	27137	FNMA	Annually	27252	FHLB	Quarterly
27007	JPM	6/1/2023 and then starting on 5/1/2024	27138	JPM	Quarterly starting 12/22/2023	27255	BAC	Semi-annually
27011	JAS	6/1/2024	27139	JPM	Quarterly starting 12/22/2023	27256	BAC	Semi-annually
27024	JPM	Quarterly starting 6/23/2024	27141	FNMA	Quarterly	27276	FHLB	Quarterly
27029	MAS	Anytime	27149	TOY	1/20/2025 and 7/20/2025	27313	JPM	Quarterly
27041	WISTRN	Anytime	27164	FHLB	Anytime	27329	NYSHGR	Anytime
27042	WISTRN	Anytime	27168	APPL	Anytime starting 1/8/2026	27342	FHLB	12/29/2023
27055	CASWTR	Anytime	27169	APPL	Anytime starting 1/8/2026	27343	FHLB	12/29/2023
27056	FNMA	Quarterly	27171	JPM	Quarterly	27345	FHLB	12/29/2023
27058	PHOGEN	Anytime	27172	JPM	Quarterly	27364	FHLB	7/28/2023
27071	FAMC	Semi-annually	27178	LOUIS	Anytime	27365	FHLB	7/28/2023
27072	CASHGR	Anytime	27195	FHLB	Quarterly	27398	FHLB	Quarterly
27077	FFCB	Anytime	27200	FFCB	Anytime	27399	FHLB	Quarterly
27078	FFCB	Anytime	27201	FFCB	Anytime	27423	CTS	Anytime
27079	FFCB	Anytime	27202	WIS	Anytime	27438	FHLB	Monthly
27080	FFCB	Anytime	27203	FHLB	Quarterly	27440	ALA	Anytime
27081	FHLB	Anytime	27213	FHLB	Quarterly	27441	FHLB	Quarterly
27104	FHLMC	Annually	27216	ORSGEN	Anytime	27559	FHLB	Quarterly
27110	CASMED	Anytime	27220	SCHW	2/11/2026	27560	ORS	Anytime



Northern California Power Agency
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Geo 2016A Debt Service

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
U.S. Treasury	USBT	294,000	4.509	03/28/2023	290,575	06/29/2023	59	4.626	291,633	912796ZR3	27561	291,827
Federal Home Loan Ba	USBT	292,000	4.824	04/25/2023	289,417	06/30/2023	60	4.935	289,699	313384HN2	27576	289,652
Federal Home Loan Ba	USBT	1,181,000	4.615	12/28/2022	1,152,689	07/03/2023	63	4.791	1,171,080	313384HR3	27497	1,171,462
Federal Home Loan Ba	USBT	539,000	4.639	01/10/2023	526,912	07/03/2023	63	4.812	534,472	313384HR3	27507	534,623
Federal Home Loan Ba	USBT	296,000	4.670	01/30/2023	290,087	07/03/2023	63	4.831	293,514	313384HR3	27528	293,581
Federal National Mtg	USBT	294,000	4.729	02/24/2023	289,017	07/03/2023	63	4.878	291,480	313588HR9	27543	291,566
Fund Total and Average		\$ 2,896,000	4.647		\$ 2,838,697		62	4.806	\$ 2,871,878			\$ 2,872,711

Geothermal Special Reserve

First American Govt.	USBGC	5,000	4.610		5,000		1	4.610	5,000	SYS70015	70015	5,000
Federal National Mtg	USBGC	1,495,000	0.500	02/16/2021	1,497,796	11/07/2025	921	0.460	1,373,232	3135G06G3	27167	1,496,489
Fund Total and Average		\$ 1,500,000	0.514		\$ 1,502,796		918	0.474	\$ 1,378,232			\$ 1,501,489

Geo Decommissioning Reserve

Local Agency Investm	LAIF	0	1.329		0		1	1.329	0	SYS70027	70027	0
First American Govt.	USBGC	35,116	4.610		35,116		1	4.610	35,116	SYS70034	70034	35,116
California Asset Mgm	CMP	12,520	4.800	09/01/2022	12,520		1	4.800	12,520	SYS70074	70074	12,520
Crook County School	USBGC	355,000	1.563	05/07/2020	356,211	06/15/2023	45	1.450	353,516	227183DH0	27003	355,048
Solano County CCD	USBGC	385,000	5.500	04/09/2020	434,938	08/01/2023	92	1.471	384,908	83412PCN0	26978	388,771
Enerbank USA	USBGC	250,000	3.200	08/30/2018	250,000	08/30/2023	121	3.203	248,525	29278TCP3A	30309	250,000
Citibank NA	USBGC	250,000	3.300	09/07/2018	250,000	09/07/2023	129	3.301	248,495	17312QS34A	30314	250,000
Sacramento Suburban	USBGC	330,000	3.480	04/09/2020	349,473	11/01/2024	550	1.846	324,205	78607QAY1	26977	336,404
W W Grainger Inc.	USBGC	425,000	1.850	04/30/2020	438,600	02/15/2025	656	1.161	405,476	384802AE4	27002	430,077
California St Hlth F	USBGC	500,000	0.952	11/04/2020	500,000	06/01/2025	762	0.952	462,850	13032UXM5	27111	500,000
Houston Airport Sys	USBGC	750,000	1.372	10/20/2020	750,000	07/01/2025	792	1.372	699,263	442349EM4	27102	750,000
Nashville Met Gov	USBGC	500,000	0.610	02/18/2021	500,000	07/01/2025	792	0.610	459,410	592112UB0	27175	500,000
East Side Union High	USBGC	1,000,000	0.940	10/29/2020	1,000,000	08/01/2025	823	0.940	924,840	275282PS4	27109	1,000,000
Guardian Life	USBGC	505,000	0.875	05/05/2021	500,809	12/10/2025	954	1.060	455,965	40139LBC6	27224	502,622
Apple Inc.	USBGC	1,000,000	0.700	02/08/2021	1,000,000	02/08/2026	1,014	0.700	913,300	037833EB2	27162	1,000,000
JP Morgan	USBGC	500,000	1.200	04/30/2021	500,000	04/30/2026	1,095	1.200	438,315	48128G3G3	27218	500,000
Bank of America Corp	USBGC	750,000	1.200	06/28/2021	750,000	06/25/2026	1,151	1.199	660,083	06048WM64	27229	750,000
Bank of America Corp	USBGC	50,000	1.250	08/26/2021	50,000	08/26/2026	1,213	1.250	43,965	06048WN22	27258	50,000
Apple Inc.	USBGC	1,895,000	2.050	01/12/2022	1,930,607	09/11/2026	1,229	1.629	1,778,192	037833DN7	27361	1,920,661
Caterpillar Financia	USBGC	150,000	1.150	10/13/2021	149,450	09/14/2026	1,232	1.227	135,587	14913R2Q9	27289	149,623
TSMC Arizona Corp.	USBGC	1,375,000	1.750	12/08/2021	1,386,715	10/25/2026	1,273	1.567	1,252,969	872898AA9	27334	1,383,361
Public Storage	USBGC	765,000	1.500	11/15/2021	765,360	11/09/2026	1,288	1.490	687,238	74460DAG4	27309	765,254
Public Storage	USBGC	1,722,000	1.500	12/08/2021	1,723,998	11/09/2026	1,288	1.475	1,546,959	74460DAG4	27340	1,723,430



Northern California Power Agency

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Geo Decommissioning Reserve

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
New York City Genera	USBGC	750,000	3.862	05/26/2022	750,000	05/01/2027	1,461	3.862	738,165	64966QC99	27405	750,000
Federal Home Loan Ba	USBGC	200,000	4.700	03/17/2023	198,900	06/30/2027	1,521	4.841	197,178	3130ASH44	27558	198,931
Walmart, Inc.	USBGC	1,400,000	3.950	09/21/2022	1,389,024	09/09/2027	1,592	4.125	1,405,726	931142EX7	27458	1,390,375
Intel Corp	USBGC	200,000	4.875	02/24/2023	198,252	02/10/2028	1,746	5.075	203,514	458140CE8	27553	198,318
Mercedes-Benz Fin. N	USBGC	125,000	4.800	04/14/2023	125,908	03/30/2028	1,795	4.634	125,986	58769JAG2	27574	125,899
New York City Genera	USBGC	585,000	2.040	04/30/2021	583,204	03/01/2030	2,496	2.078	503,094	64966QUX6	27219	583,611
California State Uni	USBGC	210,000	1.740	11/18/2022	167,082	11/01/2030	2,741	4.870	174,449	13077DMR0	27482	169,526
Federal Home Loan Ba	USBGC	1,000,000	1.000	02/10/2021	1,000,000	02/10/2031	2,842	1.360	810,340	3130AKX76	27163	1,000,000
Federal Agricultural	USBGC	972,000	1.460	02/18/2021	972,000	02/18/2031	2,850	1.460	789,565	31422XAU6	27177	972,000
Federal Agricultural	USBGC	600,000	1.460	07/30/2021	598,800	02/18/2031	2,850	1.482	487,386	31422XAU6	27246	599,020
Federal Home Loan Ba	USBGC	1,700,000	1.750	08/17/2022	1,482,587	06/20/2031	2,972	3.439	1,405,747	3130ANUL2	27439	1,499,936
West Hartford CT	USBGC	330,000	1.844	01/12/2023	270,273	07/01/2031	2,983	4.430	272,504	953107AK5	27512	272,409
Federal Home Loan Ba	USBGC	2,000,000	1.740	07/29/2021	2,006,440	07/29/2031	3,011	1.704	1,646,440	3130AN7G9	27245	2,005,309
Marin Community Coll	USBGC	500,000	1.710	09/14/2021	506,610	08/01/2031	3,014	1.565	410,830	56781RKZ9	27272	505,519
Oceanside Unified Sc	USBGC	310,000	1.900	01/12/2023	247,916	08/01/2031	3,014	4.780	255,896	675383TR4	27513	250,114
County of Bexar TX	USBGC	385,000	2.134	09/23/2021	385,000	08/15/2031	3,028	2.134	313,583	088518PA7	27274	385,000
County of Bexar TX	USBGC	250,000	2.134	09/23/2021	250,000	08/15/2031	3,028	2.134	205,738	088518NH4	27275	250,000
Chicago Transit Auth	USBGC	90,000	3.302	11/21/2022	78,348	12/01/2031	3,136	5.110	81,423	16772PCS3	27485	78,921
Federal Farm Credit	USBGC	2,500,000	1.800	01/11/2022	2,445,000	01/05/2032	3,171	2.044	2,044,100	3133ENJZ4	27360	2,452,193
Federal Agricultural	USBGC	975,000	4.120	05/25/2022	970,125	04/27/2032	3,284	4.181	922,526	31422XXY3	27403	970,584
Fund Total and Average		\$ 28,586,636	1.981		\$ 28,259,266		1893	2.065	\$ 25,465,887			\$ 28,210,552
GRAND TOTALS:		\$ 32,982,636	2.148		\$ 32,600,759		1686	2.234	\$ 29,715,997.			\$ 32,584,752

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 04/30/2023

Callable Dates:

Inv

26977	SCRWTR	Anytime
27111	CASMED	Anytime
27162	APPL	Anytime starting 1/8/2026
27163	FHLB	Quarterly
27177	FAMCA	Semi-annually
27218	JPM	Annually
27219	NYC	Anytime
27229	BAC	Semi-annually
27245	FHLB	Anytime
27246	FAMCA	Semi-annually
27258	BAC	Semi-annually
27403	FAMCA	Quarterly
27405	NYC	Anytime
27439	FHLB	Monthly
27482	CASHGR	Anytime
27485	CHITRN	Anytime
27553	INTC	Anytime starting 1/10/2028



**Northern California Power Agency
Treasurer's Report
04/30/2023**

Cap Facilities 2019A Debt Svc

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
US Bank Trust	USBT	820	0.010		820		1	0.010	820	SYS79017	79017	820
U.S. Treasury	USBT	431,000	4.570	03/28/2023	424,380	07/27/2023	87	4.705	425,850	912796Y29	27567	426,240
Federal Home Loan Ba	USBT	436,000	4.640	12/28/2022	423,862	08/01/2023	92	4.821	430,585	313384JW0	27501	430,830
Federal Home Loan Ba	USBT	1,319,000	4.690	01/30/2023	1,287,554	08/01/2023	92	4.870	1,302,618	313384JW0	27534	1,303,191
Federal Home Loan Ba	USBT	1,029,000	4.829	02/24/2023	1,007,187	08/01/2023	92	5.003	1,016,220	313384JW0	27549	1,016,299
Federal Home Loan Ba	USBT	429,000	4.860	04/25/2023	423,324	08/01/2023	92	4.993	423,672	313384JW0	27582	423,672
Fund Total and Average		\$ 3,644,820	4.728		\$ 3,567,127		91	4.896	\$ 3,599,765			\$ 3,601,052
GRAND TOTALS:		\$ 3,644,820	4.728		\$ 3,567,127		91	4.896	\$ 3,599,765.			\$ 3,601,052

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Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 04/30/2023



Northern California Power Agency
Treasurer's Report
04/30/2023

Capital Dev. Reserve Hydro

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm	LAIF	0	1.329		0		1	1.329	0	SYS70028	70028	0
First American Govt.	USBGC	202,877	4.610		202,877		1	4.610	202,877	SYS70031	70031	202,877
California Asset Mgm	CMP	1,764,959	4.800	09/01/2022	1,764,959		1	4.800	1,764,959	SYS70073	70073	1,764,959
Colgate-Palmolive Co	USBGC	550,000	2.100	08/09/2018	528,660	05/01/2023	0	2.985	550,000	19416QEC0	26652	550,000
J Paul Getty Trust	USBGC	1,000,000	0.391	01/28/2021	1,000,000	01/01/2024	245	0.401	969,590	374288AB4	27161	1,000,000
Federal Home Loan Ba	USBGC	500,000	5.000	01/30/2023	500,000	01/26/2024	270	5.000	498,050	3130AUJ62	27515	500,000
Federal Farm Credit	USBGC	50,000	5.125	02/28/2023	49,991	02/28/2024	303	5.143	50,077	3133EPCB9	27556	49,992
Met Life Glob Fundin	USBGC	209,000	0.700	04/12/2022	199,867	04/05/2024	340	2.988	200,381	58989V2C7	27385	204,722
Met Life Glob Fundin	USBGC	419,000	0.700	04/12/2022	400,690	04/05/2024	340	2.988	401,720	58989V2C7	27386	410,423
Federal National Mtg	USBGC	500,000	5.000	01/26/2023	500,000	04/26/2024	361	5.006	497,595	3135GAE72	27514	500,000
Federal Home Loan Ba	USBGC	985,000	4.875	01/30/2023	987,778	06/14/2024	410	4.649	985,532	3130ATVC8	27520	987,266
U.S. Treasury	USBGC	795,000	0.375	01/30/2023	749,536	07/15/2024	441	4.468	755,870	91282CCL3	27527	757,313
Nashville Met Gov	USBGC	250,000	1.030	12/17/2020	250,000	08/01/2024	458	1.029	237,978	592090GB4	27134	250,000
Califorina Infra & E	USBGC	100,000	0.645	12/17/2020	100,000	10/01/2024	519	0.683	94,466	13034AL57	27135	100,000
Federal Home Loan Ba	USBGC	1,750,000	5.000	01/30/2023	1,750,000	10/28/2024	546	5.004	1,740,218	3130AULQ5	27517	1,750,000
Walmart, Inc.	USBGC	500,000	2.650	02/07/2020	520,975	12/15/2024	594	1.744	486,185	931142DV2	26950	507,008
Federal Home Loan Ba	USBGC	500,000	4.625	04/03/2023	502,995	03/14/2025	683	4.296	502,740	3130AUZC1	27571	502,875
Bank of NY Mellon Co	USBGC	545,000	1.600	04/30/2021	561,197	04/24/2025	724	0.839	512,671	06406RAN7	27221	553,054
Federal Agricultural	USBGC	500,000	0.675	05/19/2020	500,000	05/19/2025	749	0.675	463,770	31422BA26	27004	500,000
Federal Home Loan Ba	USBGC	1,000,000	5.000	01/30/2023	1,000,000	07/28/2025	819	5.000	993,940	3130AUPL2	27519	1,000,000
Nashville Met Gov	USBGC	250,000	1.230	12/17/2020	250,000	08/01/2025	823	1.229	231,885	592090GC2	27133	250,000
City of El Paso TX	USBGC	500,000	4.346	12/07/2020	553,420	08/15/2025	837	1.950	496,035	283734TC5	27131	526,077
Califorina Infra & E	USBGC	130,000	0.765	12/17/2020	130,000	10/01/2025	884	0.765	119,367	13034AL65	27132	130,000
Federal Home Loan Ba	USBGC	1,000,000	5.050	01/30/2023	1,000,000	10/28/2025	911	5.053	993,970	3130AUQK3	27521	1,000,000
Federal Home Loan Mt	USBGC	1,000,000	5.020	01/30/2023	1,000,000	10/28/2025	911	5.023	993,940	3134GYG30	27522	1,000,000
Federal Home Loan Mt	USBGC	1,000,000	5.000	01/30/2023	1,000,000	10/30/2025	913	5.003	994,170	3134GYFX5	27523	1,000,000
Bank of America Corp	USBGC	1,000,000	0.850	11/25/2020	1,000,000	11/25/2025	939	0.798	884,120	06048WK41	27121	1,000,000
Federal National Mtg	USBGC	500,000	0.650	12/17/2020	500,850	12/10/2025	954	0.615	456,435	3135G06J7	27136	500,445
JP Morgan	USBGC	500,000	0.825	12/22/2020	500,000	12/22/2025	966	0.825	438,745	48128GY53	27140	500,000
Federal National Mtg	USBGC	500,000	0.640	01/06/2021	501,550	12/30/2025	974	0.576	455,685	3135G06Q1	27148	500,829
Federal Home Loan Mt	USBGC	1,000,000	5.050	01/27/2023	1,000,000	01/27/2026	1,002	5.050	992,740	3134GYEY4	27538	1,000,000
Federal Home Loan Ba	USBGC	1,000,000	5.100	01/30/2023	1,000,000	01/28/2026	1,003	5.100	993,210	3130AUNJ9	27518	1,000,000
Federal Home Loan Mt	USBGC	1,000,000	4.800	01/30/2023	1,000,000	01/30/2026	1,005	4.800	993,430	3134GYFB3	27525	1,000,000
Federal Home Loan Ba	USBGC	500,000	0.520	02/12/2021	499,750	02/12/2026	1,018	0.530	451,920	3130AKWA0	27165	499,861
Federal Home Loan Mt	USBGC	1,000,000	5.150	02/17/2023	1,000,000	02/17/2026	1,023	5.150	993,090	3134GYFR8	27542	1,000,000
Merck & Co Inc.	USBGC	550,000	0.750	01/30/2023	495,534	02/24/2026	1,030	4.226	503,316	58933YAY1	27526	500,023
Federal Home Loan Ba	USBGC	500,000	0.500	02/25/2021	500,000	02/25/2026	1,031	0.500	455,625	3130AKXX9	27181	500,000
Cisco Systems Inc.	USBGC	35,000	2.950	11/18/2022	33,672	02/28/2026	1,034	4.200	33,979	17275RBC5	27481	33,855
Federal Home Loan Ba	USBGC	500,000	1.400	04/21/2021	500,000	04/21/2026	1,086	1.090	463,170	3130ALXR0	27214	500,000
United Health Group	USBGC	500,000	1.150	06/28/2021	501,660	05/15/2026	1,110	1.082	458,055	91324PEC2	27231	501,034



Northern California Power Agency

Treasurer's Report

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Capital Dev. Reserve Hydro

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Federal Home Loan Mt	USBGC	1,000,000	5.000	01/30/2023	1,000,000	07/30/2026	1,186	5.000	992,010	3134GYFL1	27524	1,000,000
Federal Home Loan Ba	USBGC	500,000	0.875	08/17/2021	500,000	08/17/2026	1,204	0.875	450,265	3130ANGX2	27253	500,000
Federal Home Loan Ba	USBGC	500,000	1.050	08/24/2021	500,000	08/24/2026	1,211	0.967	452,660	3130ANFT2	27254	500,000
Bank of America Corp	USBGC	50,000	1.250	08/26/2021	50,000	08/26/2026	1,213	1.250	43,965	06048WN22	27257	50,000
TSMC Arizona Corp.	USBGC	200,000	1.750	12/08/2021	201,704	10/25/2026	1,273	1.567	182,250	872898AA9	27332	201,216
Public Storage	USBGC	250,000	1.500	12/08/2021	250,290	11/09/2026	1,288	1.475	224,588	74460DAG4	27338	250,208
Federal Home Loan Ba	USBGC	500,000	0.800	12/29/2021	500,000	12/29/2026	1,338	1.509	459,535	3130AQER0	27344	500,000
Amazon.com Inc	USBGC	150,000	3.150	09/21/2022	143,474	08/22/2027	1,574	4.136	144,512	023135BC9	27456	144,284
Federal Home Loan Ba	USBGC	400,000	4.200	08/25/2022	400,000	08/25/2027	1,577	4.200	390,912	3130ASVC0	27442	400,000
Federal Home Loan Ba	USBGC	437,838	5.555	01/30/2023	438,276	01/27/2028	1,732	5.531	435,307	3130AUJJ4	27516	438,254
Fund Total and Average		\$ 29,073,674	3.255		\$ 29,019,705		786	3.407	\$ 28,087,510			\$ 29,016,575

Hydro Debt Service

U.S. Treasury	USBT	26,000	4.447	01/30/2023	25,518	06/29/2023	59	4.593	25,791	912796ZR3	27529	25,811
U.S. Treasury	USBT	26,000	4.498	02/24/2023	25,594	06/29/2023	59	4.632	25,791	912796ZR3	27544	25,808
U.S. Treasury	USBT	27,000	4.509	03/28/2023	26,685	06/29/2023	59	4.626	26,783	912796ZR3	27562	26,800
U.S. Treasury	USBT	26,000	4.733	04/25/2023	25,778	06/29/2023	59	4.840	25,791	912796ZR3	27577	25,798
Fund Total and Average		\$ 105,000	4.547		\$ 103,575		59	4.673	\$ 104,156			\$ 104,217

Hydro 2018A Debt Service

U.S. Treasury	USBT	1,109,000	4.509	03/28/2023	1,096,079	06/29/2023	59	4.626	1,100,073	912796ZR3	27563	1,100,803
Federal Home Loan Ba	USBT	1,107,000	4.825	04/25/2023	1,097,208	06/30/2023	60	4.935	1,098,277	313384HN2	27578	1,098,098
Federal Home Loan Ba	USBT	4,470,000	4.615	12/28/2022	4,362,844	07/03/2023	63	4.791	4,432,452	313384HR3	27498	4,433,899
Federal Home Loan Ba	USBT	1,600,000	4.640	01/10/2023	1,564,117	07/03/2023	63	4.812	1,586,560	313384HR3	27509	1,587,008
Federal Home Loan Ba	USBT	1,119,000	4.670	01/30/2023	1,096,645	07/03/2023	63	4.831	1,109,600	313384HR3	27530	1,109,855
Federal National Mtg	USBT	1,116,000	4.730	02/24/2023	1,097,085	07/03/2023	63	4.878	1,106,436	313588HR9	27545	1,106,762
Fund Total and Average		\$ 10,521,000	4.648		\$ 10,313,978		62	4.806	\$ 10,433,398			\$ 10,436,425

Hydro 2019A Debt Service

U.S. Treasury	USBT	1,209,000	4.510	03/28/2023	1,194,914	06/29/2023	59	4.626	1,199,268	912796ZR3	27564	1,200,064
Federal Home Loan Ba	USBT	1,205,000	4.825	04/25/2023	1,194,341	06/30/2023	60	4.935	1,195,505	313384HN2	27579	1,195,310
Federal Home Loan Ba	USBT	4,867,000	4.615	12/28/2022	4,750,327	07/03/2023	63	4.791	4,826,117	313384HR3	27499	4,827,693
Federal Home Loan Ba	USBT	2,122,000	4.640	01/10/2023	2,074,411	07/03/2023	63	4.812	2,104,175	313384HR3	27510	2,104,769
Federal Home Loan Ba	USBT	1,219,000	4.669	01/30/2023	1,194,648	07/03/2023	63	4.831	1,208,760	313384HR3	27531	1,209,038
Federal National Mtg	USBT	1,214,000	4.730	02/24/2023	1,193,424	07/03/2023	63	4.878	1,203,596	313588HR9	27546	1,203,951
Fund Total and Average		\$ 11,836,000	4.648		\$ 11,602,065		62	4.806	\$ 11,737,421			\$ 11,740,825



Northern California Power Agency

Treasurer's Report

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Hydro 2022A Debt Service

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Hydro 2022A Debt Service												
U.S. Treasury	USBT	507,000	4.509	03/28/2023	501,093	06/29/2023	59	4.626	502,919	912796ZR3	27565	503,253
Federal Home Loan Ba	USBT	506,000	4.824	04/25/2023	501,524	06/30/2023	60	4.935	502,013	313384HN2	27580	501,931
Federal Home Loan Ba	USBT	511,000	4.670	01/30/2023	500,792	07/03/2023	63	4.831	506,708	313384HR3	27532	506,824
Federal National Mtg	USBT	510,000	4.729	02/24/2023	501,356	07/03/2023	63	4.878	505,629	313588HR9	27547	505,778
Fund Total and Average		\$ 2,034,000	4.684		\$ 2,004,765		61	4.818	\$ 2,017,269			\$ 2,017,786

Hydro 2022B Debt Service

U.S. Treasury	USBT	168,000	4.510	03/28/2023	166,043	06/29/2023	59	4.626	166,648	912796ZR3	27566	166,758
Federal Home Loan Ba	USBT	168,000	4.825	04/25/2023	166,514	06/30/2023	60	4.935	166,676	313384HN2	27581	166,649
Federal Home Loan Ba	USBT	678,000	4.615	12/28/2022	661,747	07/03/2023	63	4.791	672,305	313384HR3	27500	672,524
Federal Home Loan Ba	USBT	228,000	4.640	01/10/2023	222,887	07/03/2023	63	4.812	226,085	313384HR3	27511	226,149
Federal Home Loan Ba	USBT	170,000	4.670	01/30/2023	166,604	07/03/2023	63	4.831	168,572	313384HR3	27533	168,611
Federal National Mtg	USBT	169,000	4.730	02/24/2023	166,136	07/03/2023	63	4.878	167,552	313588HR9	27548	167,601
Fund Total and Average		\$ 1,581,000	4.648		\$ 1,549,931		62	4.806	\$ 1,567,838			\$ 1,568,292

Hydro Special Reserve

First American Govt.	USBGC	5,000	4.610		5,000		1	4.610	5,000	SYS70016	70016	5,000
Federal National Mtg	USBGC	1,495,000	0.500	02/16/2021	1,497,796	11/07/2025	921	0.460	1,373,232	3135G06G3	27166	1,496,489
Fund Total and Average		\$ 1,500,000	0.514		\$ 1,502,796		918	0.474	\$ 1,378,232			\$ 1,501,489

Hydro 2012 DSRA

U.S. Treasury	USBT	20,000	4.321	12/28/2022	19,191	11/30/2023	213	4.518	19,479	912796ZD4	27505	19,489
U.S. Treasury	USBT	17,000	4.297	01/10/2023	16,286	12/28/2023	241	4.500	16,504	912796ZN2	27508	16,511
U.S. Treasury	USBT	1,875,000	1.750	04/27/2022	1,843,359	06/30/2024	426	2.551	1,813,913	9128286Z8	27388	1,858,045
Fund Total and Average		\$ 1,912,000	1.799		\$ 1,878,836		422	2.589	\$ 1,849,896			\$ 1,894,045
GRAND TOTALS:		\$ 58,562,674	3.756		\$ 57,975,651		456	3.926	\$ 57,175,720.			\$ 58,279,654

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Callable Dates:		Inv #		27136	FNMA	Quarterly	27344	FHLB	12/29/2023	27521	FHLB	Quarterly starting 7/28/2023	
				27140	JPM	Quarterly starting 12/22/2023	27442	FHLB	Quarterly	27522	FHLMC	Quarterly starting 7/28/2023	
		26950	WMT	Anytime starting 10/15/2024	27161	JPGETY	Anytime starting 10/1/2023	27514	FNMA	Quarterly starting 7/26/2023	27523	FHLMC	Quarterly starting 10/30/2023
		27004	FAMCA	Semi-annually	27165	FHLB	Anytime	27515	FHLB	Quarterly	27524	FHLMC	Quarterly starting 1/30/2024
		27131	ELPASO	Callable annually starting 8/15/2023	27221	BK	3/24/2025	27516	FHLB	Quarterly	27525	FHLMC	1/30/2024 only
		27132	FECB	Anytime	27253	FHLB	Quarterly	27517	FHLB	Quarterly	27538	FHLMC	Quarterly starting 7/27/2023
		27135	CASDEV	Anytime	27254	FHLB	Monthly	27518	FHLB	Quarterly starting 7/28/2023	27542	FHLMC	Quarterly starting 8/17/2023
					27257	BAC	Semi-annually	27519	FHLB	Quarterly starting 7/28/2023			



Northern California Power Agency
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LEC GHG Auction Acct

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		0	1.329		0		1	1.329	0	SYS70046	70046	0
California Asset Mgm	CMP	164,499	4.730	09/13/2022	164,499		1	4.730	164,499	SYS70077	70077	164,499
Fund Total and Average		\$ 164,499	4.730		\$ 164,499		1	4.730	\$ 164,499			\$ 164,499

LEC Issue #1 2010B DS Fund

US Bank Trust	USB	757	0.010		757		1	0.010	757	SYS79004	79004	757
Federal Home Loan Ba	USBT	736,000	4.540	12/28/2022	721,799	05/30/2023	29	4.693	733,314	313384GF0	27502	733,308
Federal Home Loan Ba	USBT	2,865,000	4.779	04/25/2023	2,851,686	05/30/2023	29	4.869	2,854,543	313384GF0	27583	2,853,968
U.S. Treasury	USBT	730,000	4.650	02/24/2023	721,042	05/30/2023	29	4.773	727,584	912797FG7	27550	727,266
Federal Home Loan Ba	USBT	732,000	4.659	01/30/2023	720,535	05/31/2023	30	4.799	729,233	313384GG8	27535	729,157
Federal Home Loan Ba	USBT	727,000	4.690	03/28/2023	720,844	06/01/2023	31	4.795	724,034	313384GH6	27568	724,064
Fund Total and Average		\$ 5,790,757	4.706		\$ 5,736,663		29	4.816	\$ 5,769,465			\$ 5,768,520

LEC Issue #2 2010B DS Fund

US Bank Trust	USB	268	0.010		268		1	0.010	268	SYS79012	79012	268
Federal Home Loan Ba	USBT	2,950,000	4.580	12/06/2022	2,884,322	05/30/2023	29	4.749	2,939,233	313384GF0	27493	2,939,116
Federal Home Loan Ba	USBT	795,000	4.539	12/28/2022	779,660	05/30/2023	29	4.693	792,098	313384GF0	27503	792,093
Federal Home Loan Ba	USBT	1,669,000	4.779	04/25/2023	1,661,244	05/30/2023	29	4.869	1,662,908	313384GF0	27584	1,662,573
U.S. Treasury	USBT	789,000	4.650	02/24/2023	779,318	05/30/2023	29	4.773	786,388	912797FG7	27551	786,045
Federal Home Loan Ba	USBT	791,000	4.660	01/30/2023	778,611	05/31/2023	30	4.799	788,010	313384GG8	27536	787,928
Federal Home Loan Ba	USBT	786,000	4.689	03/28/2023	779,344	06/01/2023	31	4.795	782,793	313384GH6	27569	782,826
Fund Total and Average		\$ 7,780,268	4.645		\$ 7,662,767		29	4.781	\$ 7,751,698			\$ 7,750,849

LEC Issue#1 2017A DS Fund

Federal Home Loan Ba	USBT	3,822,000	4.580	12/06/2022	3,736,907	05/30/2023	29	4.749	3,808,050	313384GF0	27494	3,807,899
Federal Home Loan Ba	USBT	680,000	4.540	12/28/2022	666,879	05/30/2023	29	4.693	677,518	313384GF0	27504	677,513
Federal Home Loan Ba	USBT	670,000	4.780	04/25/2023	666,886	05/30/2023	29	4.869	667,555	313384GF0	27585	667,420
U.S. Treasury	USBT	675,000	4.649	02/24/2023	666,717	05/30/2023	29	4.773	672,766	912797FG7	27552	672,472
Federal Home Loan Ba	USBT	676,000	4.660	01/30/2023	665,412	05/31/2023	30	4.799	673,445	313384GG8	27537	673,375
Federal Home Loan Ba	USBT	672,000	4.689	03/28/2023	666,309	06/01/2023	31	4.795	669,258	313384GH6	27570	669,286
Fund Total and Average		\$ 7,195,000	4.619		\$ 7,069,110		29	4.767	\$ 7,168,592			\$ 7,167,965

LEC Issue #1 2010 DSR Fund

US Bank Trust	USB	285	0.010		285		1	0.010	285	SYS79005	79005	285
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Northern California Power Agency

Treasurer's Report

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LEC Issue #1 2010 DSR Fund

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Federal Home Loan Ba	USBT	20,000	4.875	04/25/2023	20,107	09/13/2024	501	4.468	20,065	3130ATVD6	27586	20,106
Federal Home Loan Mt	USBT	4,800,000	5.010	12/29/2022	4,800,000	12/29/2025	973	5.010	4,779,936	3134GY7C0	27506	4,800,000
Federal Farm Credit	USBT	4,430,000	0.840	03/02/2021	4,430,000	03/02/2026	1,036	0.840	4,033,692	3133EMSK9	27199	4,430,000
Federal Home Loan Ba	USBT	150,000	0.875	08/27/2021	150,528	06/12/2026	1,138	0.799	136,910	3130AN4T4	27270	150,343
Fund Total and Average		\$ 9,400,285	2.978		\$ 9,400,920		1004	2.976	\$ 8,970,888			\$ 9,400,734

LEC Iss#1 2010B BABS Subs Resv

US Bank Trust	USB	837	0.010		837		1	0.010	837	SYS79006	79006	837
Federal Home Loan Ba	USBT	2,311,000	4.580	12/06/2022	2,259,548	05/30/2023	29	4.749	2,302,565	313384GF0	27495	2,302,474
Fund Total and Average		\$ 2,311,837	4.578		\$ 2,260,385		29	4.748	\$ 2,303,402			\$ 2,303,311

LEC Issue #2 2010B DSR BABS

US Bank Trust	USB	1,157	0.010		1,157		1	0.010	1,157	SYS79013	79013	1,157
Federal Home Loan Ba	USBT	956,000	4.580	12/06/2022	934,716	05/30/2023	29	4.749	952,511	313384GF0	27496	952,473
Fund Total and Average		\$ 957,157	4.574		\$ 935,873		29	4.744	\$ 953,668			\$ 953,630

LEC O & M Reserve

Local Agency Investm		0	1.329		0		1	1.329	0	SYS70047	70047	0
First American Govt.	USBGC	17,119	4.610		17,119		1	4.610	17,119	SYS70041	70041	17,119
California Asset Mgm	CMP	4,629,896	4.800	09/09/2022	4,629,896		1	4.800	4,629,896	SYS70075	70075	4,629,896
Federal Farm Credit	USBGC	50,000	5.125	02/28/2023	49,991	02/28/2024	303	5.143	50,077	3133EPCB9	27557	49,992
Caterpillar Financia	USBGC	465,000	3.250	02/03/2020	496,569	12/01/2024	580	1.776	454,923	14912L6G1	26952	475,353
Nashville Met Gov	USBGC	500,000	0.610	02/18/2021	500,000	07/01/2025	792	0.610	459,410	592112UB0	27176	500,000
Federal National Mtg	USBGC	1,000,000	0.600	07/30/2020	1,001,000	07/29/2025	820	0.579	922,180	3136G4D75	27047	1,000,449
Federal National Mtg	USBGC	1,000,000	0.600	08/18/2020	1,000,000	08/18/2025	840	0.600	920,850	3136G4G72	27057	1,000,000
Federal Farm Credit	USBGC	750,000	0.530	09/29/2020	750,000	09/29/2025	882	0.530	687,173	3133EMBH4	27083	750,000
Federal Farm Credit	USBGC	670,000	0.530	09/29/2020	670,000	09/29/2025	882	0.530	613,874	3133EMBJ0	27084	670,000
Apple Inc.	USBGC	500,000	0.700	02/17/2021	500,000	02/08/2026	1,014	0.699	456,650	037833EB2	27170	500,000
JP Morgan	USBGC	500,000	1.200	04/30/2021	500,000	04/30/2026	1,095	1.200	438,315	48128G3G3	27222	500,000
MassMutual Global Fu	USBGC	1,000,000	1.200	08/02/2021	1,007,220	07/16/2026	1,172	1.050	892,380	57629WDE7	27250	1,004,674
Bank of America Corp	USBGC	100,000	1.250	08/26/2021	100,000	08/26/2026	1,213	1.250	87,930	06048WN22	27259	100,000
Caterpillar Financia	USBGC	500,000	1.150	10/13/2021	498,165	09/14/2026	1,232	1.227	451,955	14913R2Q9	27290	498,743
TSMC Arizona Corp.	USBGC	850,000	1.750	12/08/2021	857,242	10/25/2026	1,273	1.567	774,563	872898AA9	27335	855,169
Public Storage	USBGC	515,000	1.500	11/15/2021	515,242	11/09/2026	1,288	1.490	462,650	74460DAG4	27310	515,171
Public Storage	USBGC	1,064,000	1.500	12/08/2021	1,065,234	11/09/2026	1,288	1.475	955,844	74460DAG4	27341	1,064,884
City of Beverly Hill	USBGC	200,000	1.327	06/28/2022	179,194	06/01/2027	1,492	3.654	178,112	088006KB6	27424	182,750
Fund Total and Average		\$ 14,311,015	2.328		\$ 14,336,872		696	2.287	\$ 13,453,901			\$ 14,314,200

GRAND TOTALS:

\$ 47,910,818

3.623

\$ 47,567,089

421

3.679

\$ 46,536,113.

\$ 47,823,708

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types.
Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 04/30/2023

Callable Dates:

Inv #		
27047	FHLMC	Quarterly
27057	FNMA	Quarterly
27083	FFCB	Anytime
27084	FFCB	Anytime
27170	APPL	Anytime starting 1/8/2026
27199	FFCB	Anytime
27222	JPM	Annually
27259	BAC	Semi-annually
27506	FHLMC	12/29/2023




Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: Aspen Environmental Group – Five Year Multi-Task Consulting Services Agreement for Energy Related Consulting Services; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

AGENDA CATEGORY: Consent

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

IMPACTED MEMBERS:		
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/>		
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RECOMMENDATION:

Approve Resolution 23-43 authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with Aspen Environmental Group for energy related consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members.

BACKGROUND:

Energy related consulting services, including electric system resource planning and policy assessment, demand forecasting, energy efficiency program evaluation, planning and policy assessment, and regulatory compliance 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 plans to use this vendor in the ongoing Natural Gas Rate cases, as they are subject matter experts in Natural Gas Resource planning and policy assessment. NCPA estimates the cost of this work at \$110,000, which is within the General Manager's signature authority. This work meets the requirements for Sole Source services as outlined in NCPA's Procurement Policy. In addition, an NCPA Member has expressed an interest in using this vendor in the future. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future purchases. NCPA has similar agreements in place with Kano Consultants, Geosyntec Consultants, Inc., and Risk Management Professionals, Inc.

FISCAL IMPACT:

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

SELECTION PROCESS:

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

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

The recommendation above was reviewed by the Facilities Committee on May 3, 2023. Due to the lack of a quorum, no formal action was taken, however, the Members present at the meeting

voiced their support for the recommendation, and no other meeting attendees had any objections.

On May 8, 2023 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Randy S. Howard", is positioned above the printed name.

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution 23-43
- Multi-Task Consulting Services Agreement with Aspen Environmental Group

RESOLUTION 23-43

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK CONSULTING SERVICES AGREEMENT WITH ASPEN ENVIRONMENTAL GROUP

(reference Staff Report 159:23)

WHEREAS, energy related consulting services, including electric system resource planning and policy assessment, demand forecasting, energy efficiency program evaluation, planning and policy assessment, and regulatory compliance 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, Aspen Environmental Group is a provider of these services; and

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

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

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

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST:

TRISHA ZIMMER
ASSISTANT SECRETARY



MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND ASPEN ENVIRONMENTAL GROUP

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 Aspen Environmental Group, a corporation with its office located at 5020 Chesebro Rd, Suite 200, Agoura Hills, CA 91301 ("Consultant") (together sometimes referred to as the "Parties") as of _____, 2023 ("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) year from the date this Agreement was signed by Agency, whichever is shorter.
- 1.2 Standard of Performance.** Consultant shall perform the Services in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged and for which Consultant is providing the Services. Consultant represents that it is licensed, qualified and experienced to provide the Services set forth herein.
- 1.3 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 (\$1,000,000.00) 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

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. 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 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 costs and fees of litigation), judgments and causes of action of every nature arising out of or in connection with any negligent 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 or agents or require subcontractors to secure workers' compensation insurance for its employees.

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.

- 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; 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 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), 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 of 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:

Neda R. Delmont
COO
Aspen Environmental Group
5010 Chesebro Rd, Suite 200
Agoura Hills, CA 91301

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.

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

NORTHERN CALIFORNIA POWER AGENCY

ASPEN ENVIRONMENTAL GROUP

Date _____

Date _____

RANDY S. HOWARD
General Manager

NEDA R. DELMONT
COO

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT A

SCOPE OF SERVICES

As requested by the Northern California Power Agency (Agency), Aspen Environmental Group shall provide integrated energy analysis and planning services at any facilities owned and/or operated by Agency, its Members, Southern California Public Power Authority (SCPPA) or its Members.

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

- Electric System Resource Planning and Policy Assessment
- Regulatory Policy and Compliance
- Demand Forecasting and Energy Efficiency Program Evaluation
- Hydropower Relicensing Evaluation
- Natural Gas resource Planning and Policy Assessment
- Global Climate Change
- Impact Assessment
- Mitigation Services
- Environmental Compliance
- Utility-related Market, Financial, and Economic Analysis

All work provided by vendor on behalf of NCPA's Lodi Energy Center shall be performed remotely and vendor will not come on site.

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:

Classification	Individual	Hourly Rate
Project Manager/Director	Catherine Elder	330.00
Special Consultants	Karen Lang/Rick Brown	294.00
Senior Consultant	Michael Pretto	195.00
Senior Associate/Economist	Joe Long	177.00
Accounting/Admin Support	Sevan Koshkarian	164.00

Consultant will increase the above-listed rates listed by 3% each July 1st for the duration of the agreement beginning in 2024.

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

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

EXHIBIT C – NOT APPLICABLE

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

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: 2023 Steam Field Operation and Generation Forecast, Applicable to the following: NCPA Geothermal Facility

AGENDA CATEGORY: Consent

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

IMPACTED MEMBERS:		
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 23-45 authorizing the 2023 Steam Field Operations and Forecast Report dated May 2023 as the Geothermal Operating Protocol effective July 1, 2023. This Operating Protocol is to remain in effect until replaced by the Commission.

BACKGROUND:

The 2022 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 2022 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.

In 2023, the recommended Operating Protocol is to continue using the two-zone strategy, and operate Plants #1 and #2 at baseload conditions with the goal of maximizing generation. To clarify the criteria for any reduction in generating load, the following economic conditions are introduced into the 2023 Geothermal Operating Protocol.

- Curtailing generation is an option that may occur only when the Day Ahead Market Prices are a minimum of negative \$25 per MWhr and Net of the Renewable Energy Credit (REC) value.
- 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.

This Protocol establishes a 2023 annual peak generation target of 101.5 gross MW.

FISCAL IMPACT:

The approved FY 2024 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:

The recommendation above was reviewed by the Facilities Committee on May 3, 2023. Due to the lack of a quorum, no formal action was taken, however, the Members present at the meeting voiced their support for the recommendation, and no other meeting attendees had any objections.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments:

- Resolution 23-45
- 2023 Steam Field Operations and Forecast Report

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING THE 2023 STEAM FIELD OPERATIONS FORECAST REPORT AS THE 2023
GEOTHERMAL OPERATING PROTOCOL**

(reference Staff Report #161:23)

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 2023 Steam Field Operations Forecast Report is an in-depth study of The Geysers reservoir relative to the operation of NCPA's Geothermal facility and provides a generation forecast of the facility; and

WHEREAS, this report will act as the Operating Protocol for NCPA's Geothermal facility, with the goal of maximizing the generation output. The Operating Protocol currently uses a two-zone strategy to operate NCPA Plants #1 and #2 under baseload conditions. This Protocol maximizes generation while allowing for scheduling flexibility and reduction of load under the proper economic conditions; and

WHEREAS, for 2023, NCPA proposes to continue using the two-zone strategy, while introducing the following proper economic conditions into the 2023 Geothermal Operating Protocol:

- Curtailing generation is an option that may occur only when the Day Ahead Market Prices are a minimum of negative \$25 per MWhr and Net of the Renewable Energy Credit (REC) value.
- 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; and

WHEREAS, the Operating Protocol establishes a 2023 annual peak generation target of 101.5 gross MW; and

WHEREAS, the approved FY 2024 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; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency adopts the Steam Field Operations and Forecast Report dated May 2023 as the Geothermal Operating Protocol effective July 1, 2023, to remain in effect until replaced by the Commission.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023, 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			

JERRY SERVENTI
CHAIR

ATTEST:

TRISHA ZIMMER
ASSISTANT SECRETARY



Steam Field Operations & Forecast Report – May 2023



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

May 2023
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NCPA
Generation Services Business Unit
Steam Field Operations and Forecast Report

May 2023

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 2022 reservoir performance with a generation forecast for 2023.

Analysis of geothermal reservoir during 2022 shows that steam production is still an 0.8% harmonic decline rate. The peak generating capacity for 2022 was 103.9 MW gross or 96.5 MW net. Net generation for the year was 764 GWhrs.

Water injection continues to be essential in maintaining reservoir pressure and mitigating steam production decline rates. In 2022, the average water injection rate was 1,225 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 32.2% of the wastewater delivered in 2022. The amount of wastewater injected into the NCPA lease has been intentionally reduced over the last three 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.

Drought conditions have impacted water injection over the last three years. At times, the Southeast Effluent Pipeline (SEGEP) has provided up to 75% of the water injected into the reservoir for pressure support and steam reserves. The drought conditions limited the amount of available water because it is composed of approximately 40% secondary treated wastewater and 60% freshwater pulled from Clearlake. During times of drought, the freshwater component becomes unavailable. In 2023, significant rain and snowfall have eliminated the drought conditions and freshwater will again become available starting on May 1, 2023. Numerical modeling studies will be performed to determine if increasing water injection on the NCPA lease is warranted and the field will continue to be closely monitored for any changes in decline rate.

The 2023 generation forecast projects the peak generating capacity to be 101.5 MW gross or 91.5 MW net for the year. NCPA geothermal facilities are forecast to generate 664.8 GWhrs net in 2023. For FY 2024, the net generation is forecast to be 743.8 GWhrs. The estimated 25 year projected net reserves are 17,057 GWhrs.

I. STEAM FIELD OPERATIONS

In This Section

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

A. Overview of 2022 Production and Injection

NCPA continued to operate the Geothermal Project as a base load facility in 2022. Steam production for the year was 14.96 Glbs with water injection of 5.37 Glbs for an annual mass replacement ratio of 35.9%. 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 32.2% of the wastewater in 2022. The average total injection rate for NCPA decreased from 1,253 gpm in 2021 to 1,225 gpm in 2022.

Reservoir modeling studies indicated that reduced injection would lead to increased steam production and higher reservoir pressures. As a result, water injection was curtailed from an average of 3,500 gpm to less than 1,300 starting in August 2020. The intention was to improve reservoir conditions by causing a higher boil off rate and recovery of existing reserves.

This curtailment of injection happened to coincide with drought conditions that existed from years 2020 through 2022. During this period the SEGEP pipeline lost access to freshwater from Clearlake and the pipeline operated at roughly one third its normal capacity.

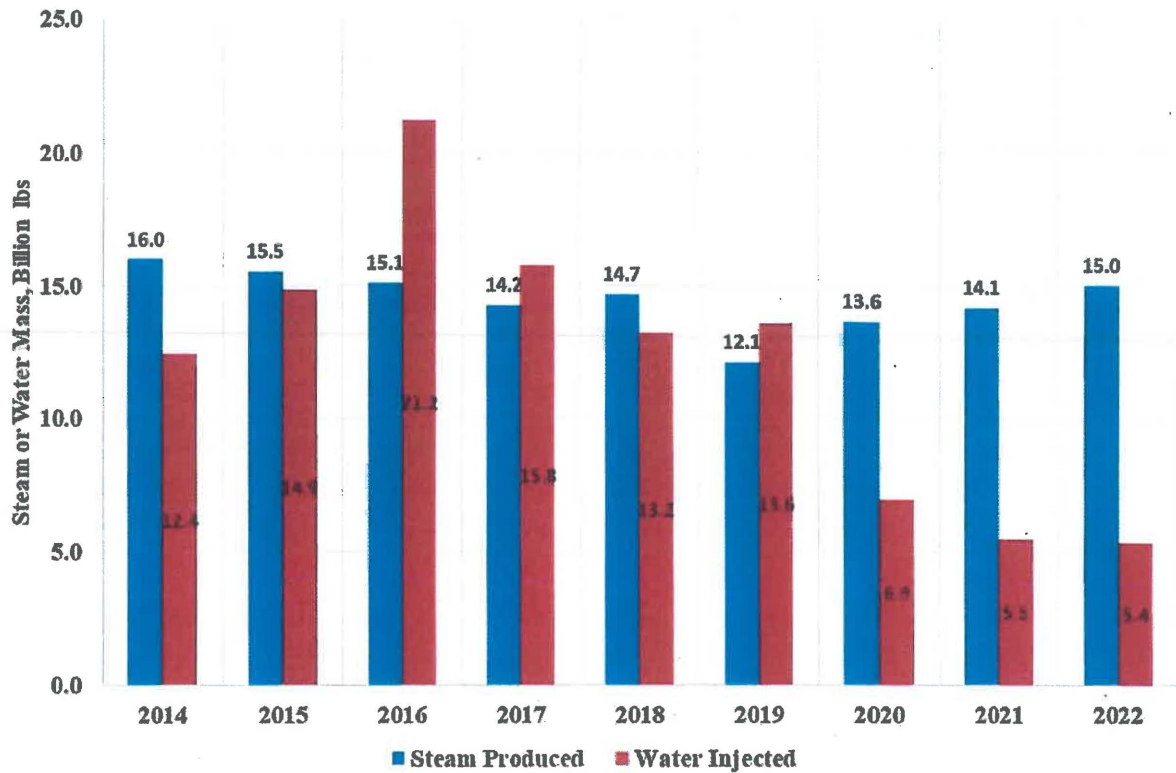
The cumulative mass replacement ratio from plant startup in 1983 through 2022 was 66.0% (*Figure 1*). The net mass withdrawal of steam from the reservoir (Mass Produced less Mass Injected) through 2022 is 246.6 billion lbs.

The average generation capacity level for 2022 was 92.9 MW gross or 87.2 MW net. These values were lower than forecast capacity of 102.9 MW gross or 95.2 MW net. The lower capacity values are attributed to several transmission line outages and a Plant #2 overhaul that was longer than originally anticipated.

Production Highlights during 2022 include:

- ▶ The 2022 average gross generation level was 92.9 MW or 87.2 MW net.
- ▶ Average annual mass replacement in the reservoir or the percentage of steam production replaced by water injection was 35.9% in 2022.

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 three 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. Due to the drought, the water available for injection was 100% secondary treated wastewater in 2022 and the freshwater component was unavailable.

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 8.04 ft on April 1, 2023 and it appears that freshwater will become available through May 1, 2024.

Even with the reduced water injection over the last several years, the reservoir has not been negatively impacted. 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. In 2023, additional numerical modeling will be done to determine if additional water injection is warranted and if so, what areas of the reservoir should be targeted.

2. Injection Operations

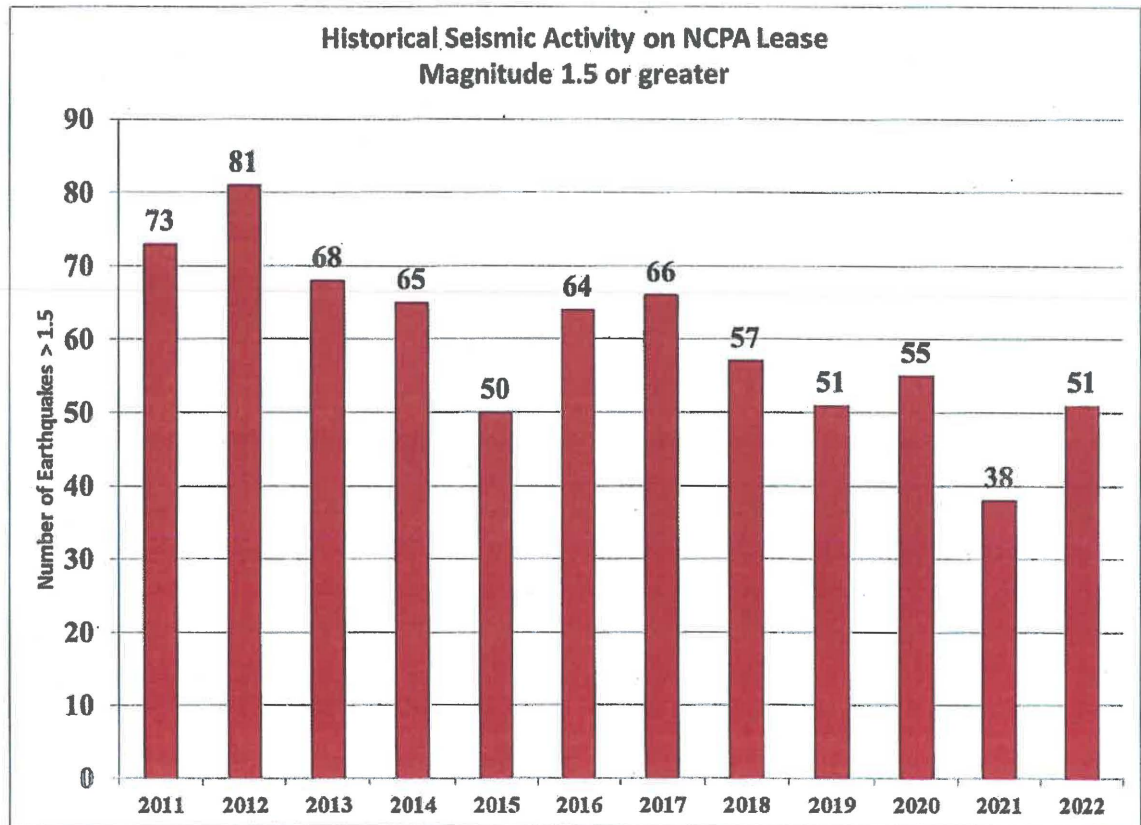
There were six different wells used for injection in 2022. The injection strategy continues to be an effort to spread water over large geographic area and limit injection rates down individual wells as much as possible. The 2022 overall injection rate of combined steam condensate and wastewater was 1,225 gpm and is a slight decrease from the 2021 rate of 1,253 gpm.

Figure 7 shows the relative location of eight injection wells on the NCPA lease. Four of the wells, E-8, H-4, 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. In 2022, H-4 was used as a production well and well P-7 was shut-in due to the limited amount of wastewater. *Figure 8* and *Table 1* show the relative amounts and type of water each well received in 2022.

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 683 seismic events of magnitude 1.5 and larger that occurred within The Geysers field during 2022. Fourteen of these events had an earthquake magnitude of 3.0 or greater. The largest seismic event was a magnitude 4.19 that occurred on the neighboring operator's lease. There were no seismic events of magnitude 3.0 or greater on the NCPA lease.

On the NCPA lease, there were 51 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 2022 was significantly higher than in 2021.

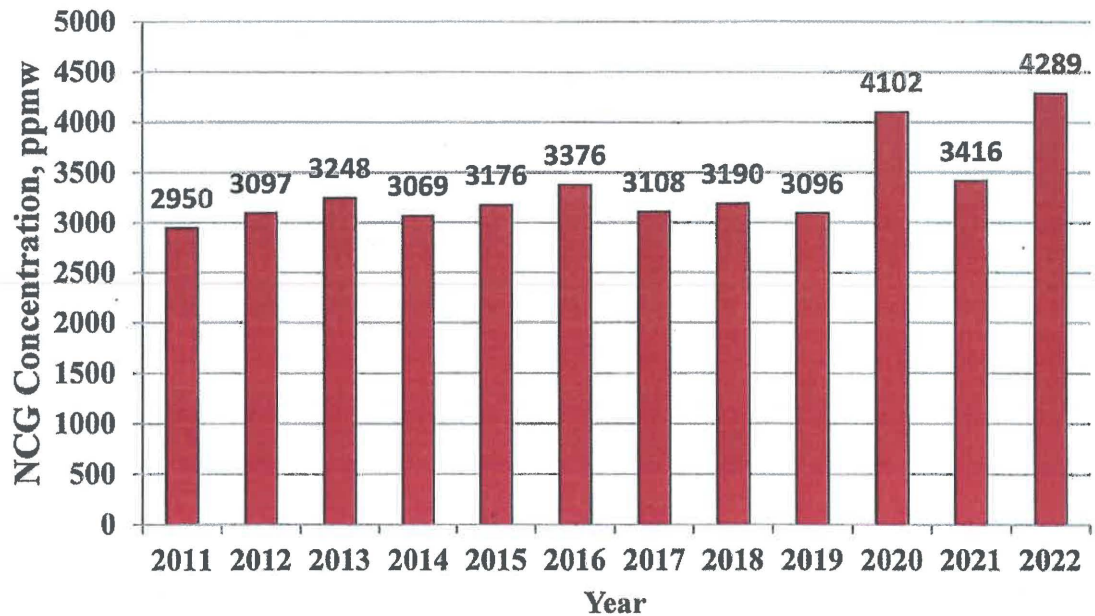


4. Non-condensable Gas (NCG) Trends

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 up in 2022. Efforts to reduce NCG production continue to require either increased injection or a more targeted approach in places to inject water. The SEGEP pipeline operated at a reduced level in 2022 and NCG production increased as a result. In 2023, efforts will be made to target well pads E, P, and Q to reduced NCG production. The figure below shows the overall NCG levels while Figure 10 shows the relative changes throughout the field.

Historical Non-Condensable Gas (NCG) Concentrations on NCPA Lease



Injection Highlights during 2022 include:

- ▶ Water injection continued at a reduced level in 2022 and averaged 1,225 gpm during the year.
- ▶ 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.
- ▶ Freshwater from Clearlake is used to supplement the secondary treated wastewater delivered by the SEGEP pipeline. Freshwater was not available for injection over the last three years due to drought, but will become available on May 1, 2024. Numerical modeling will be used to determine if additional injection is warranted on the NCPA lease.
- ▶ Non-condensable gas production was up in 2022. Targeted injection will be necessary to keep the NCG level from rising further in 2023.

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 2022 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 June 23, 2022 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 2022 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 2023, 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. To clarify the 2023 Geothermal Operating Protocol, the following economic conditions are introduced.

- Curtailing generation is an option that may occur only when the Day Ahead Market Prices are a minimum of negative \$25 per MWhr and Net of the Renewable Energy Credit (REC) value.
- 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.

This Protocol establishes a 2023 annual peak generation target of 101.5 gross MW.

2022 RESERVOIR PERFORMANCE REVIEW

In This Section

- ▶ Reservoir Pressure Distribution
- ▶ Reservoir Pressure and Flowrate Decline
- ▶ 2022 Generation Review
- ▶ 2023 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, the majority of wells have shut-in pressures ranging from 60 to 80 psig. A low pressure area with wells having a shut-in pressure of less than 60 psig is developing in the center of the steam field.

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 57 wells. The estimated average wellhead shut-in pressure is 71.3 psig. The average well on the NCPA lease flows 28,600 lb/hr at 40.2 psig.

The projected flowrate decline is shown in *Figure 13*. In 2022, the overall steam production rate averaged 1,744 klbs/hr. The flow rate in 2023 is projected to be 1,705 klbs/hr. The overall steam field decline is still 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. 2022 Generation Review

Net generation for the NCPA Geo Facilities in 2022 was 764 GWhr. For FY 2023, the forecast net generation was 734 GWhrs, but Unit #1 has been down for repairs since March 1, 2023 and the expected FY 2023 net generation is now expected to be around 654.1 GWhr. The 2022 peak gross generation level was 103.9 MW while peak net generation level was 96.5 MW.

D. 2023 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 40-year historical data for both steam production and water injection, and forecasts of production and injection out to year 2047. While total water injection is capable of replacing 100% of the annual steam production, water injection has been intentionally reduced to stimulate steam production. No negative effects to the reservoir from reduced injection rate have been observed and 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 2047 is currently estimated at 333.4 billion pounds. Remaining net generation reserves are estimated to be 17,057 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 2023, it is estimated that the Geo Facilities will generate 664.8 GWhrs net. The peak gross and net generation capacity for the year are respectively projected to be 101.5 MW gross and 91.5 MW net. For FY 2024, the net generation amount is projected to be 743.8 GWhrs.

SUMMARY

Steam Field Operations

- The NCPA lease produced 14.96 Glbs steam while injecting 5.37 Glbs of water resulting in an average mass replacement of 35.9% for the year.
- The peak gross generation level for 2022 was 103.9 MW gross while the net generation level was 96.5 MW net.
- The average water injection decreased from 1,253 gpm in 2021 to 1,225 gpm in 2022.

2022 Reservoir Performance Review

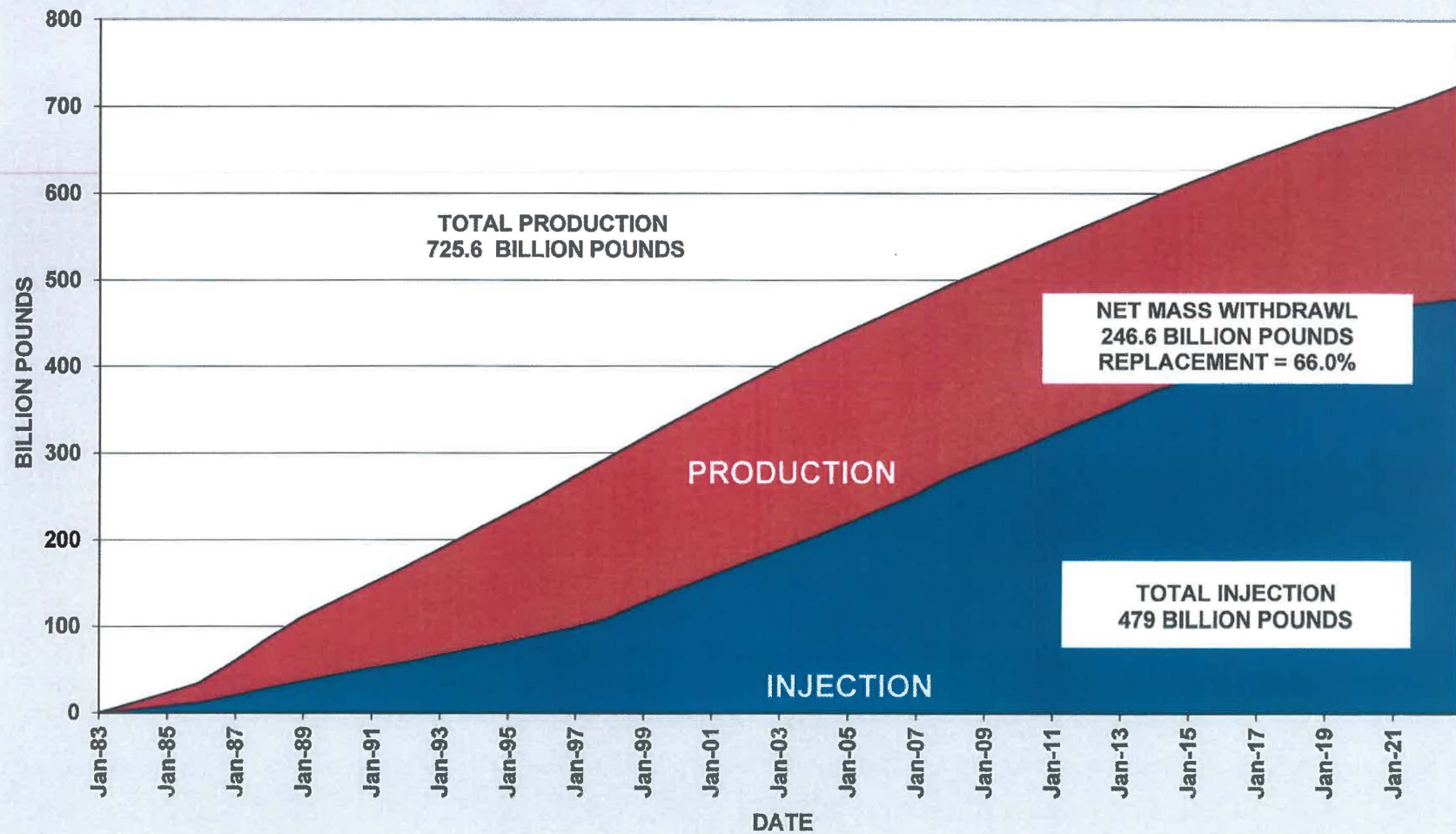
- Average shut-in wellhead pressure for the NCPA lease was 71.3 psig. The average well produces 28.6 kph at 40.2 psig.
- The steam field deliverability was 1,744 klbs/hr in 2022. The projected 2023 deliverability is 1,705 klbs/hr. The projected harmonic decline rate going forward is 0.8%.

2022 Generation Review and 2023 Generation Forecast

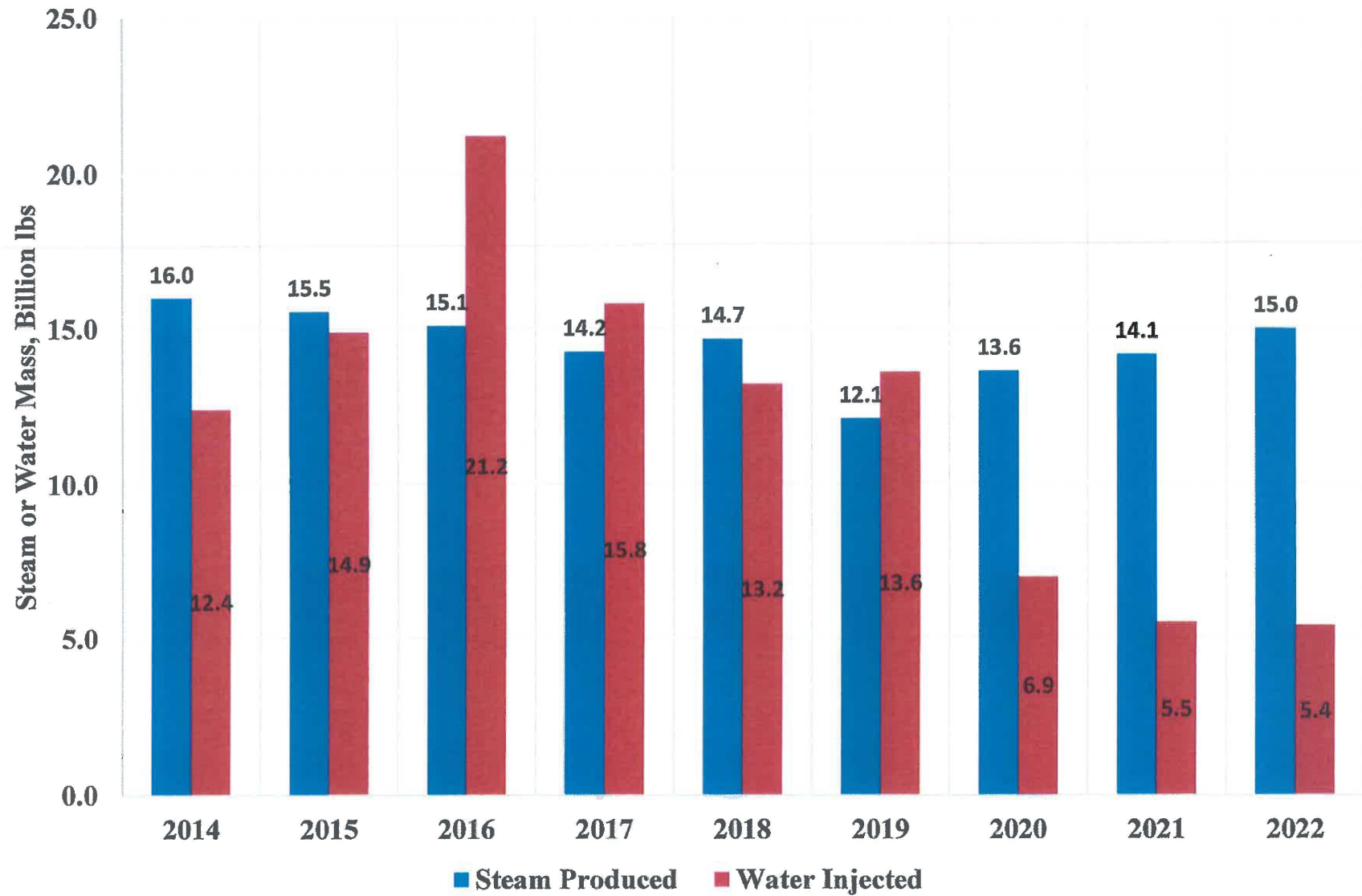
- Net generation for 2022 was 764 GWhrs. For FY 2023, net generation is projected to be 654.1 GWhrs.

- The generation forecast covers the period from 2023-2047. Recoverable steam reserves are 333.4 billion pounds with the total amount of remaining net generation estimated at 17,057 GWhr.
- The peak gross generation capacity for 2023 is expected to be 101.5 MW or 91.5 MW net.
- The net generation forecast for year 2023 is 664.8 GWhr net. For FY 2024, the net generation amount is projected to be 743.8 GWhrs.

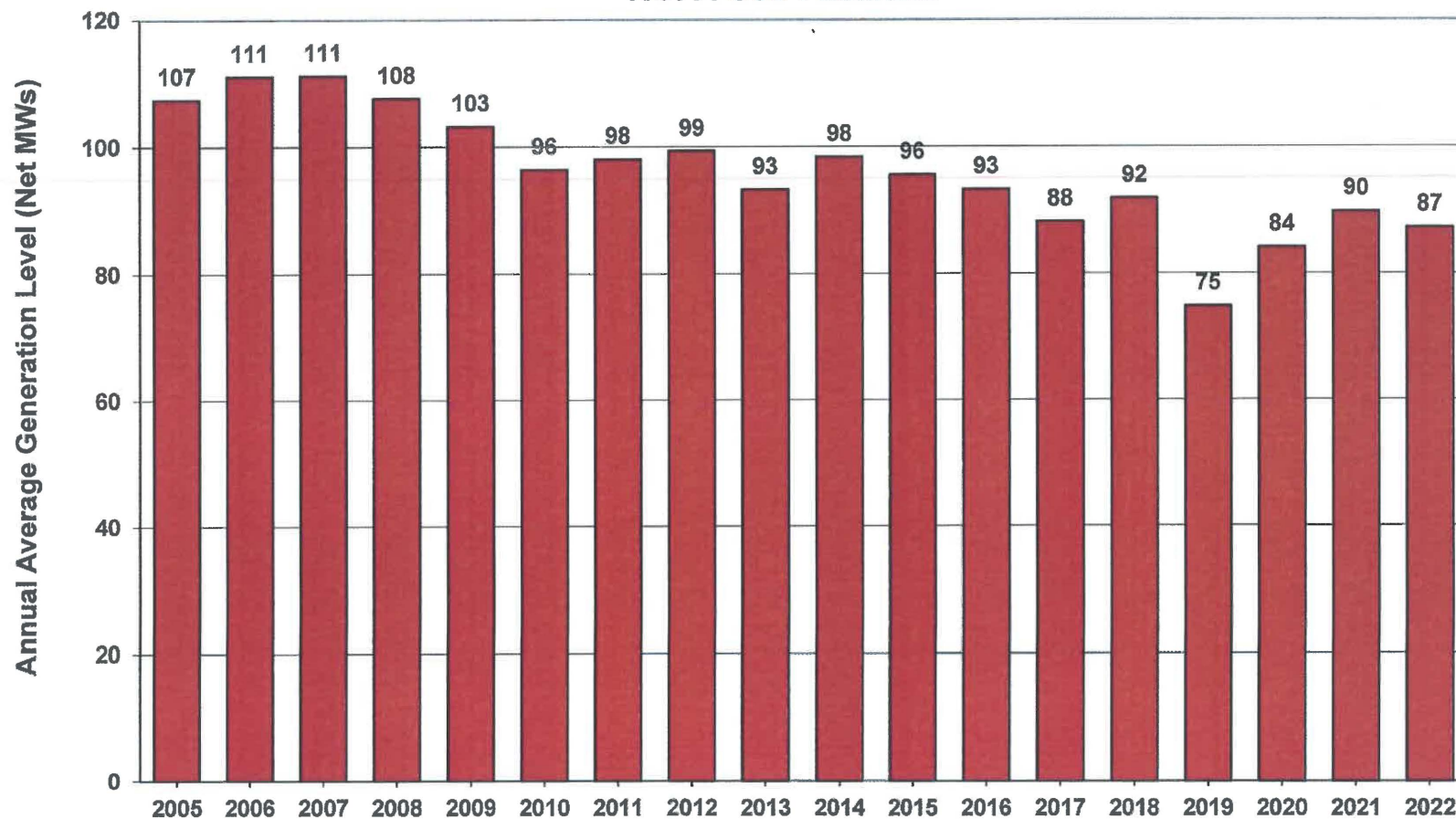
**FIGURE 1
NCPA STEAMFIELD
CUMULATIVE PRODUCTION AND INJECTION**



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

2020 Gross Steam Utilization

Figure 4

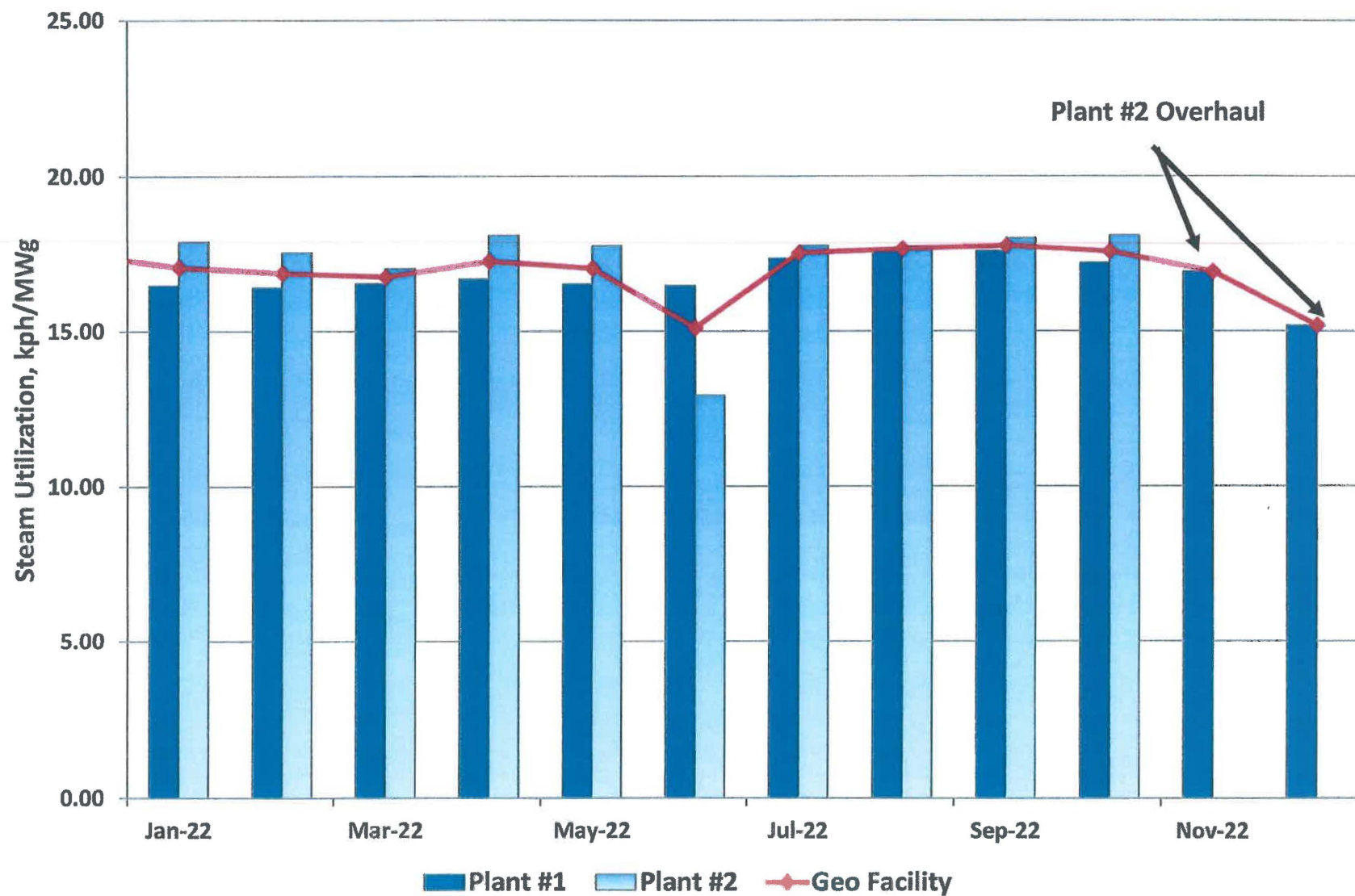
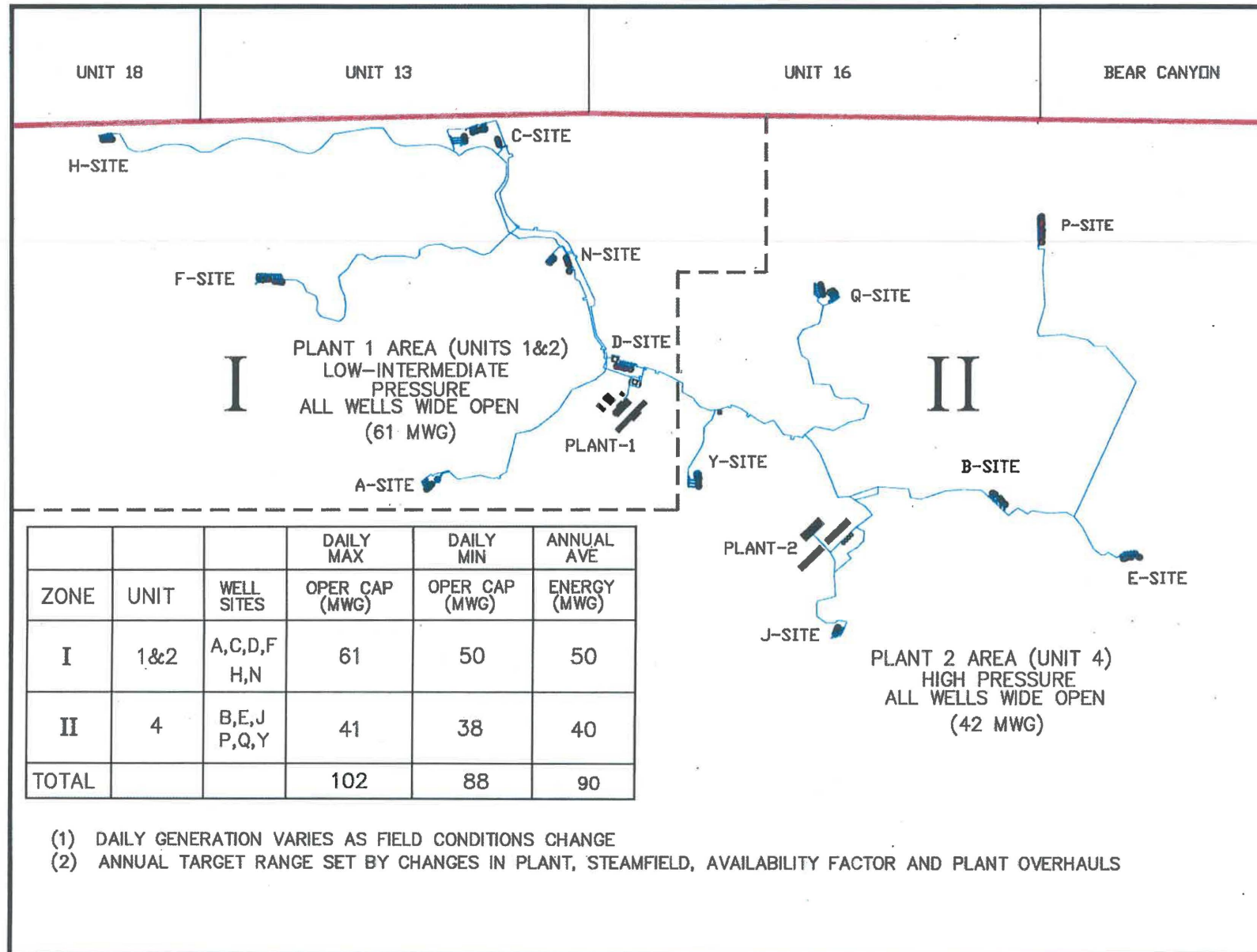


Figure 5. GEOTHERMAL OPERATIONAL PLAN 2023



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

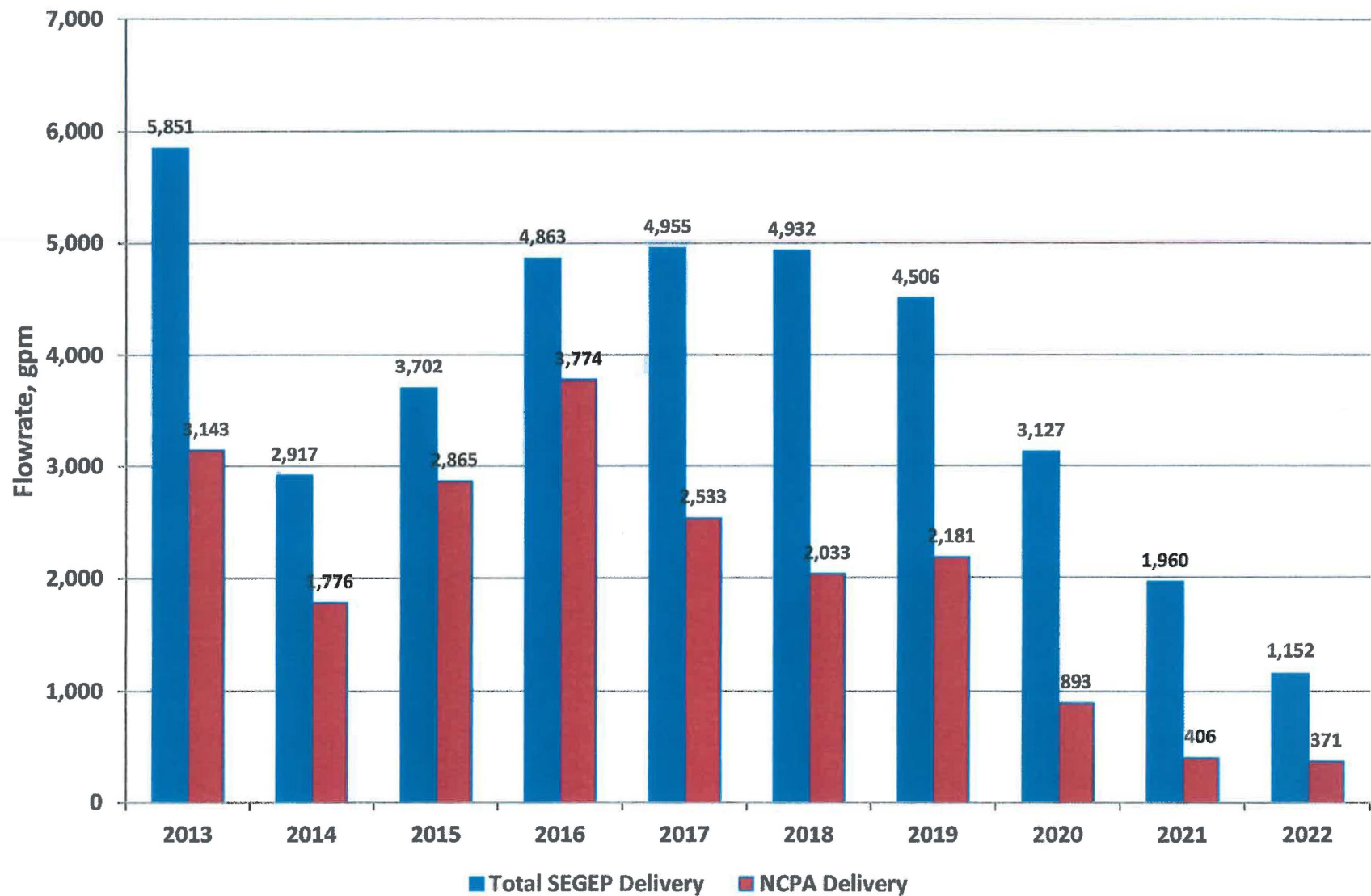


FIGURE 7 MODIFIED PLAN OF INJECTION

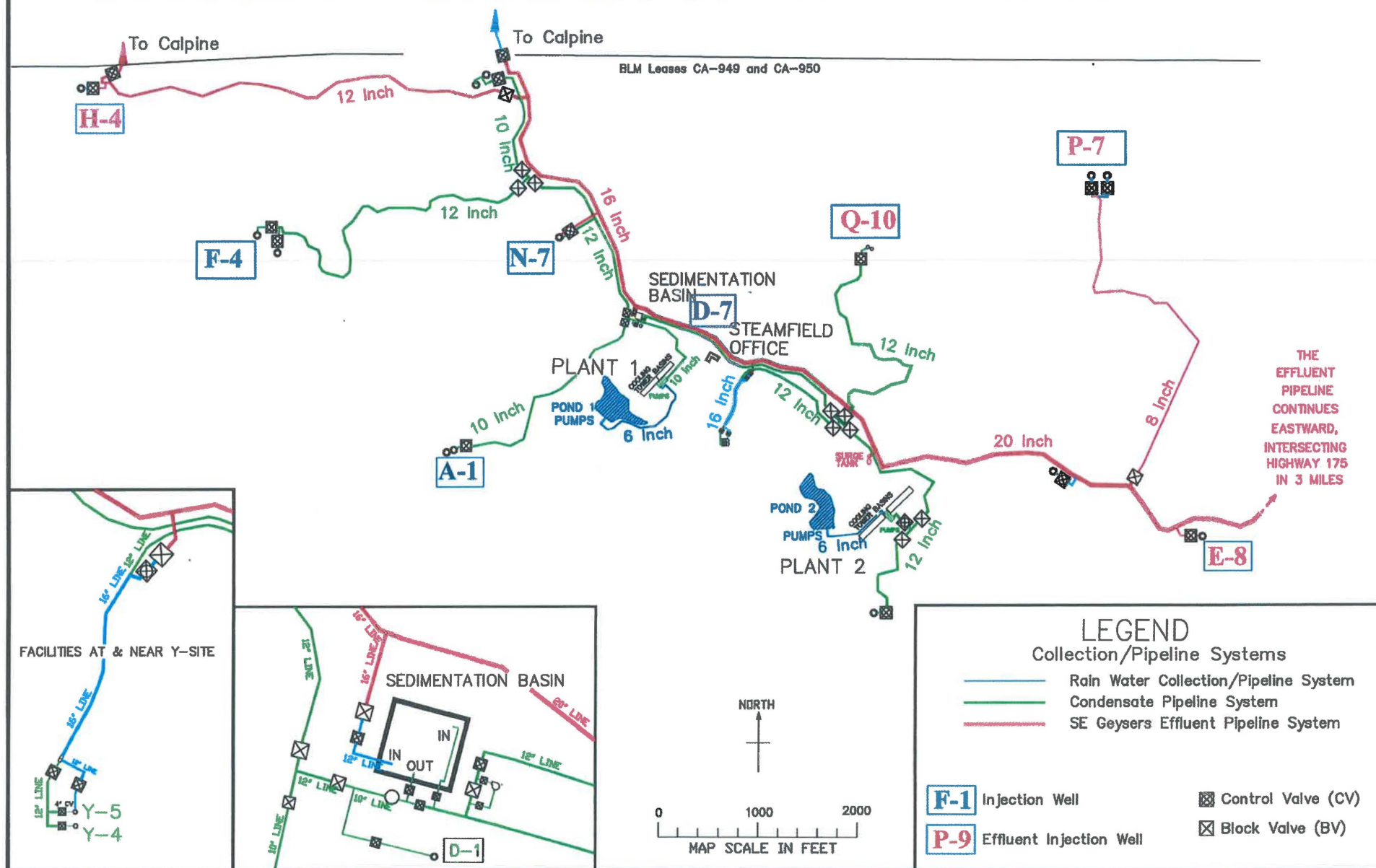
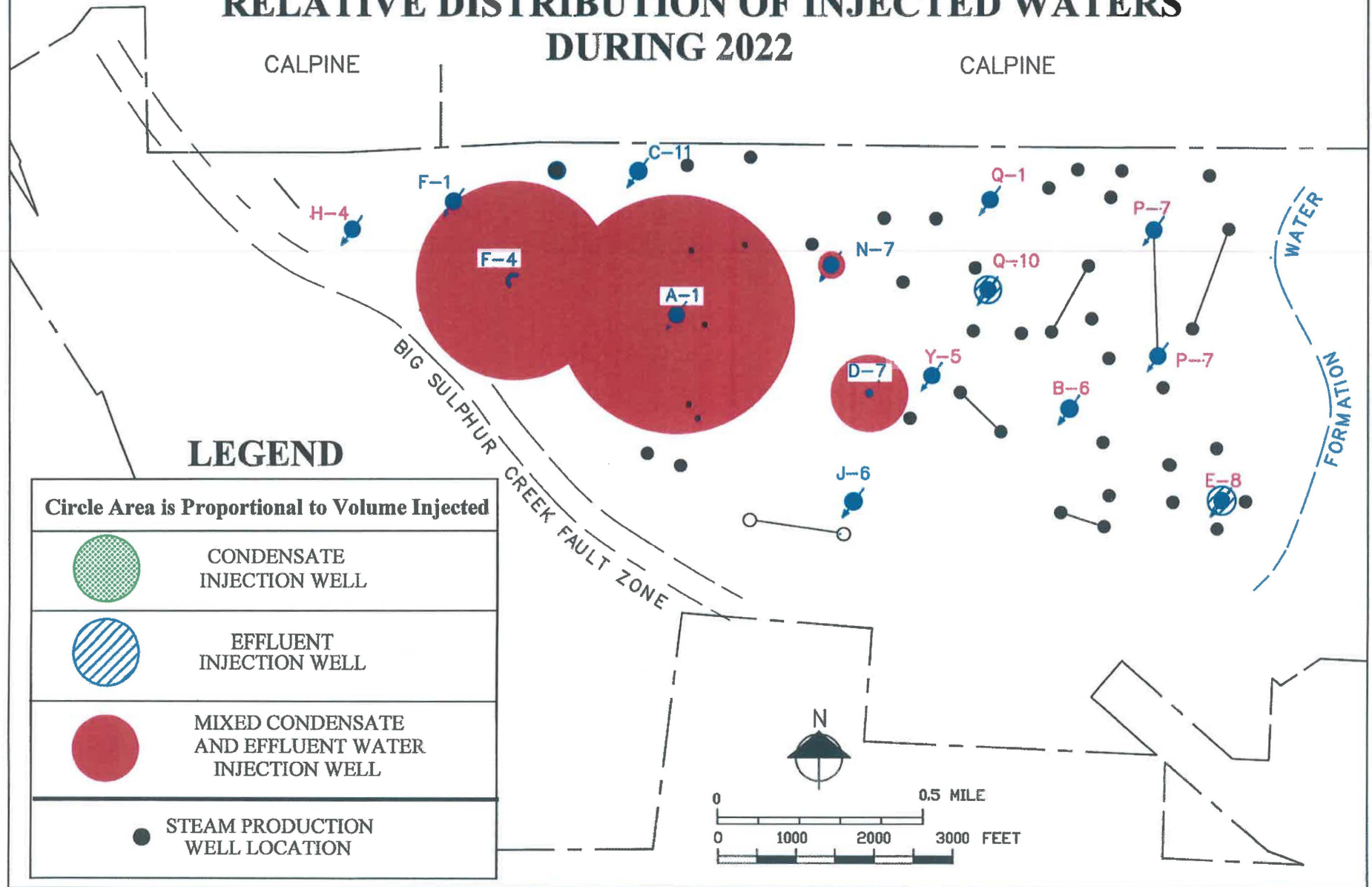


FIGURE 8
NCPA STEAM FIELD
RELATIVE DISTRIBUTION OF INJECTED WATERS
DURING 2022



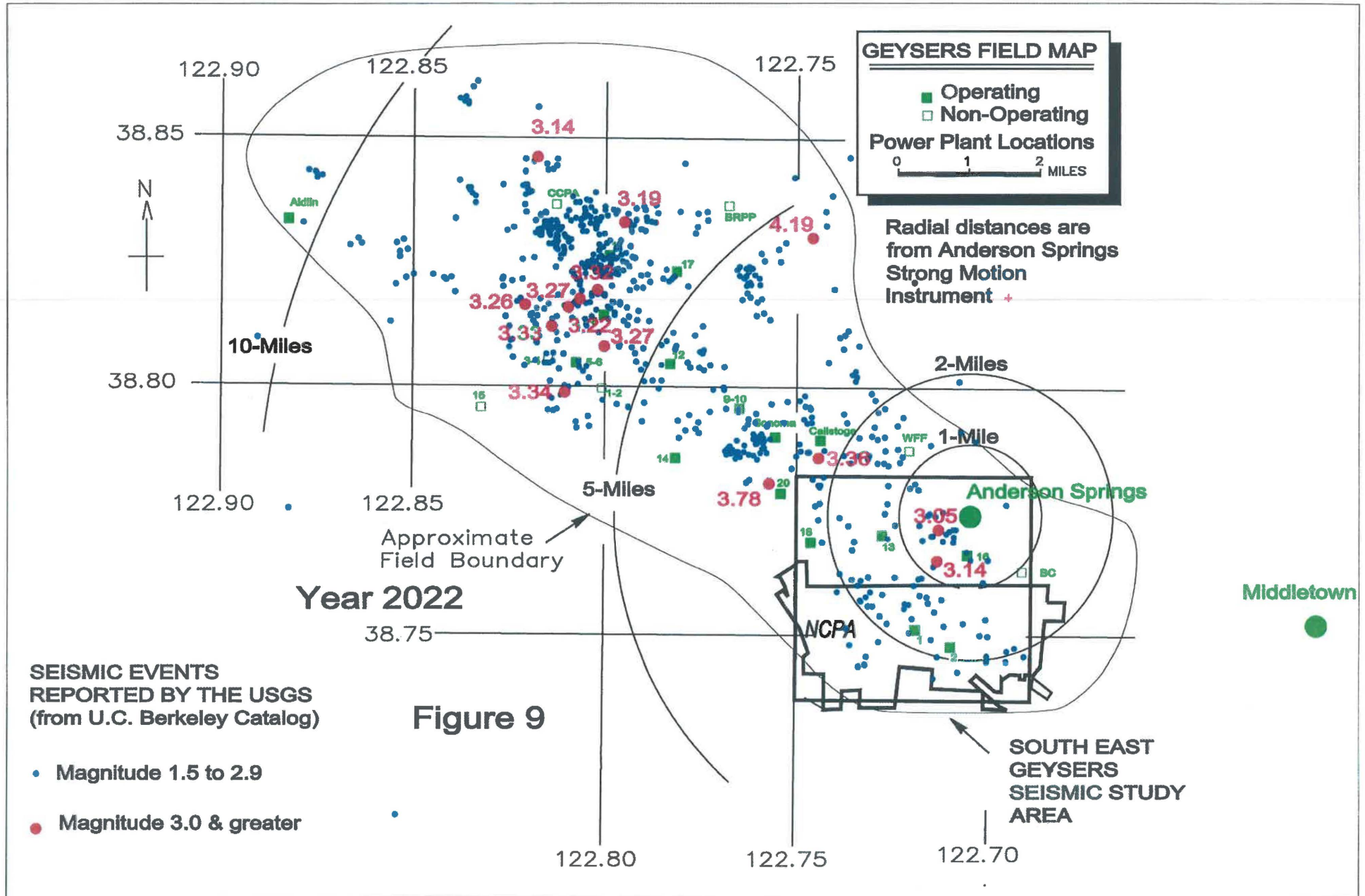


FIGURE 10
NONCONDENSABLE GAS CONCENTRATIONS
IN NCPA STEAM (ppm)

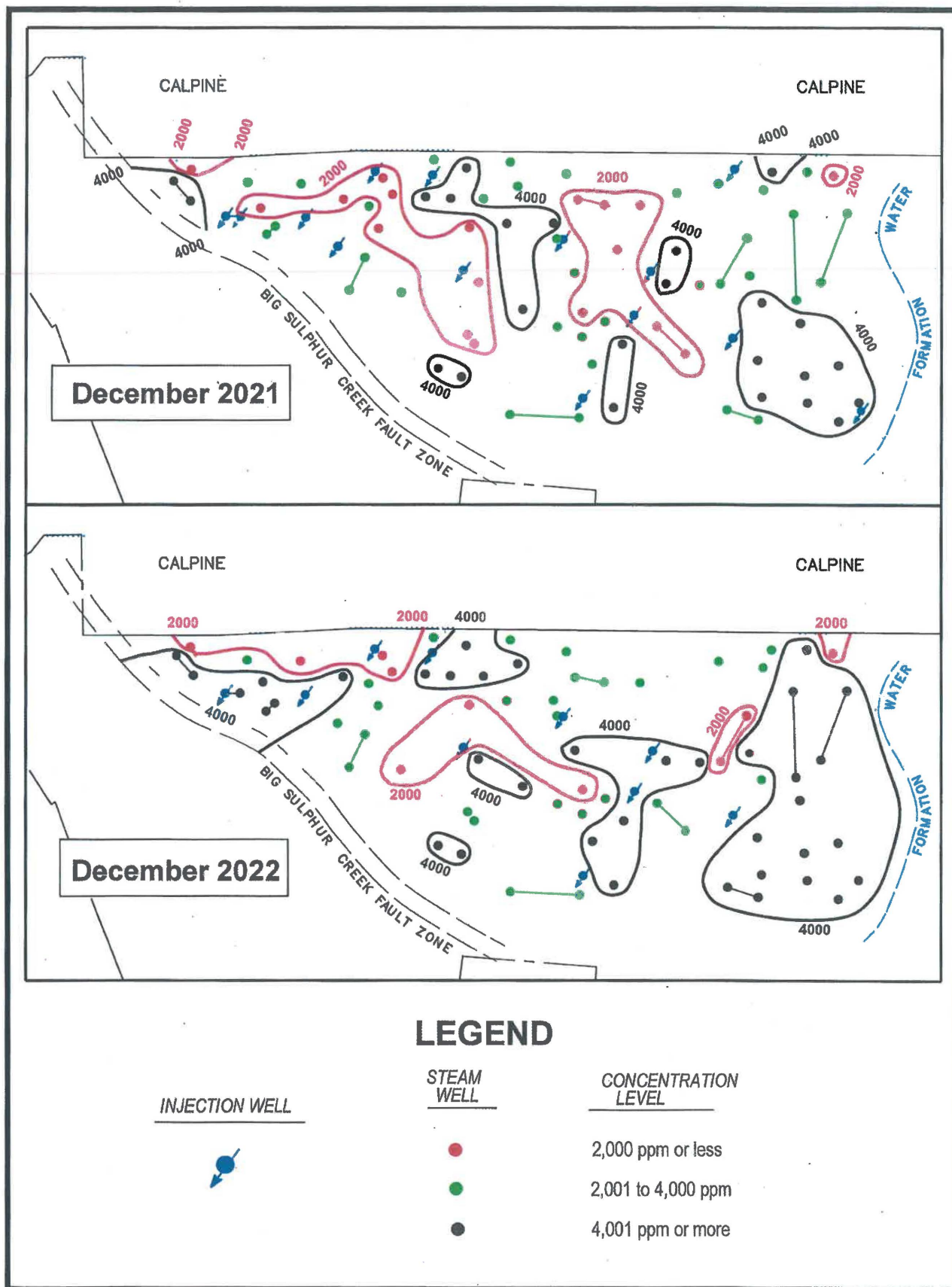
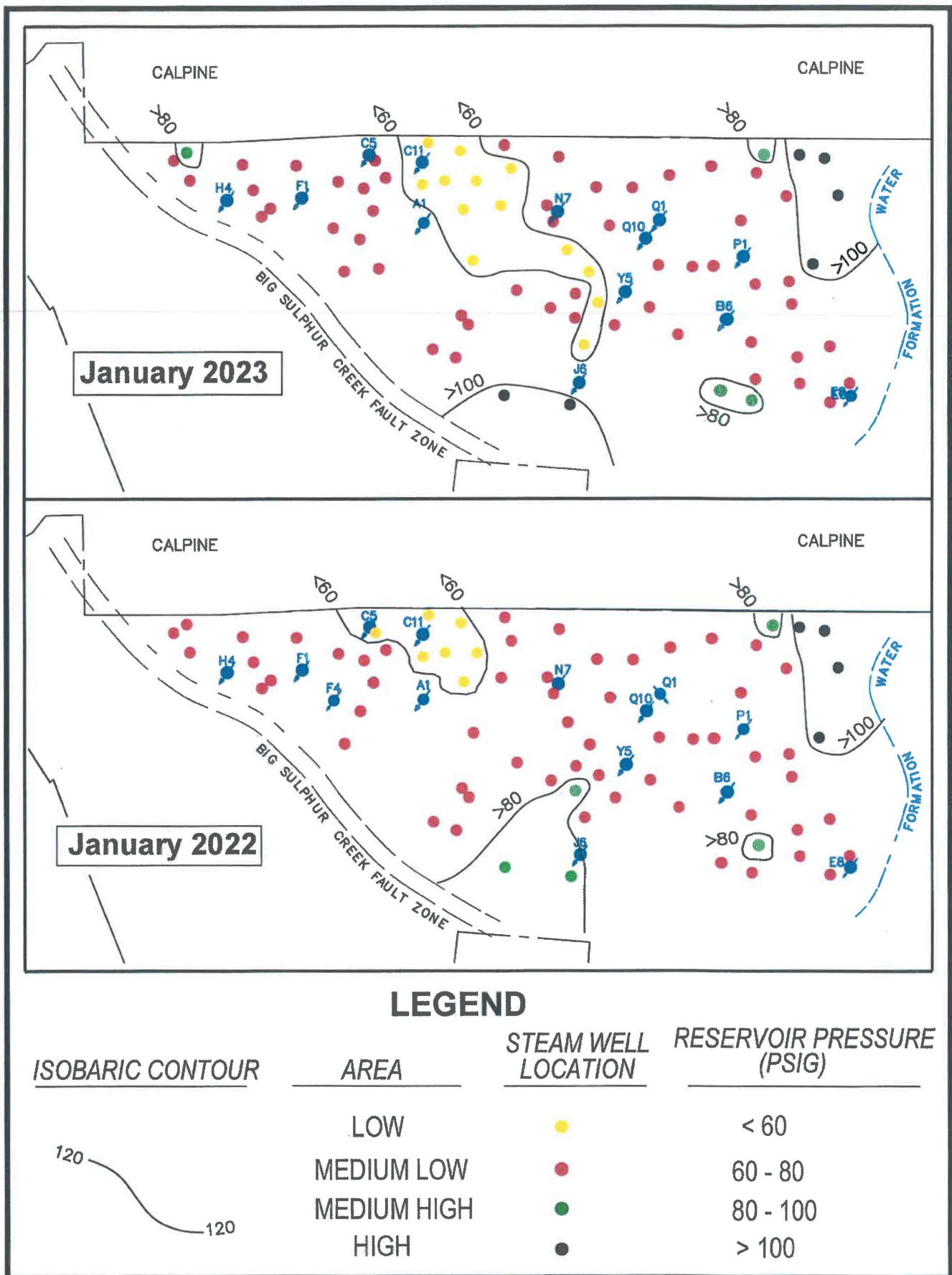
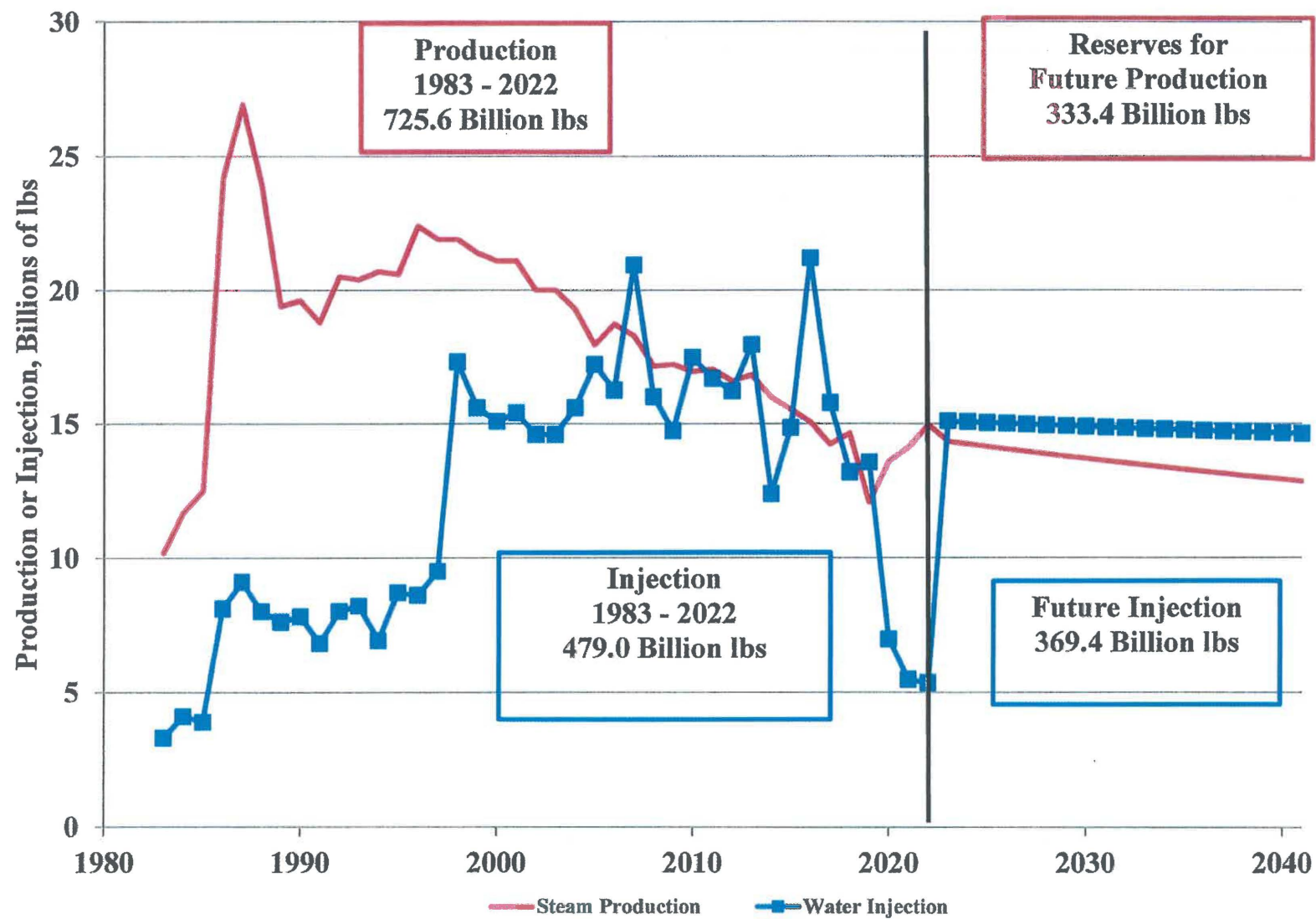


FIGURE 11
NCPA STEAM FIELD RESERVOIR PRESSURE

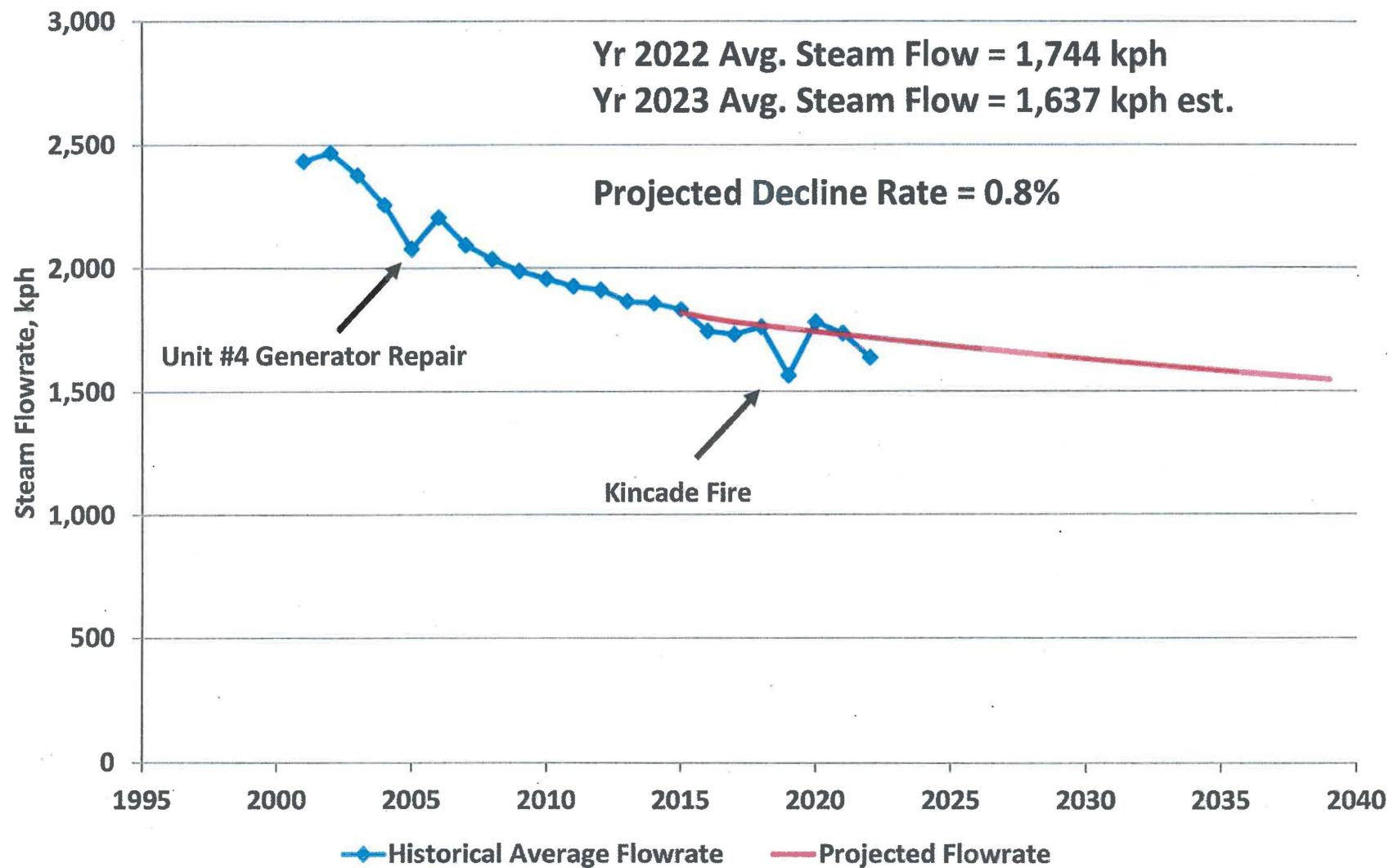


Historical and Forecast Steam Production & Water Injection **Figure 12**



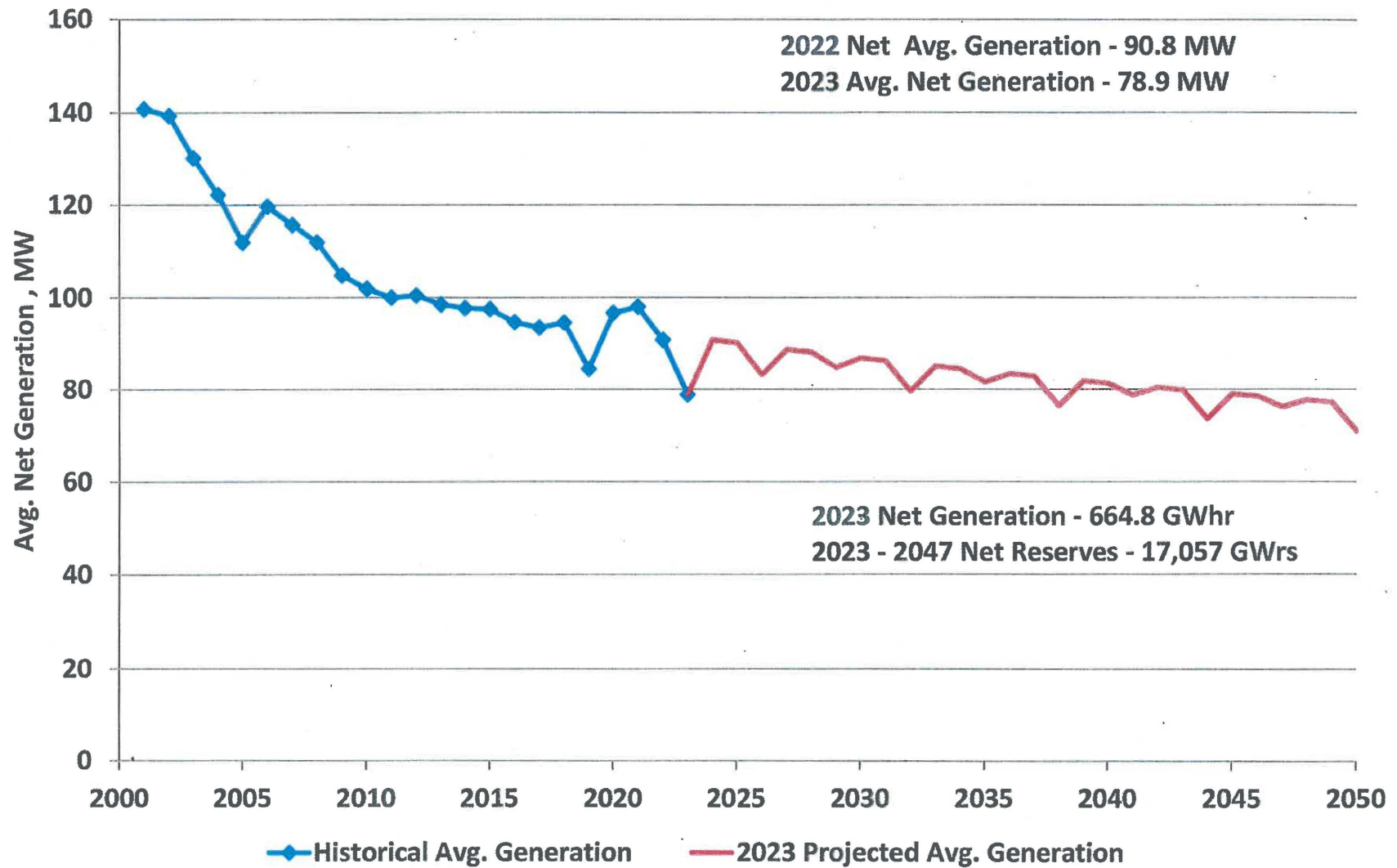
Historical and Projected Steam Flowrates Combined NCPA Plant #1 & #2

Figure 13



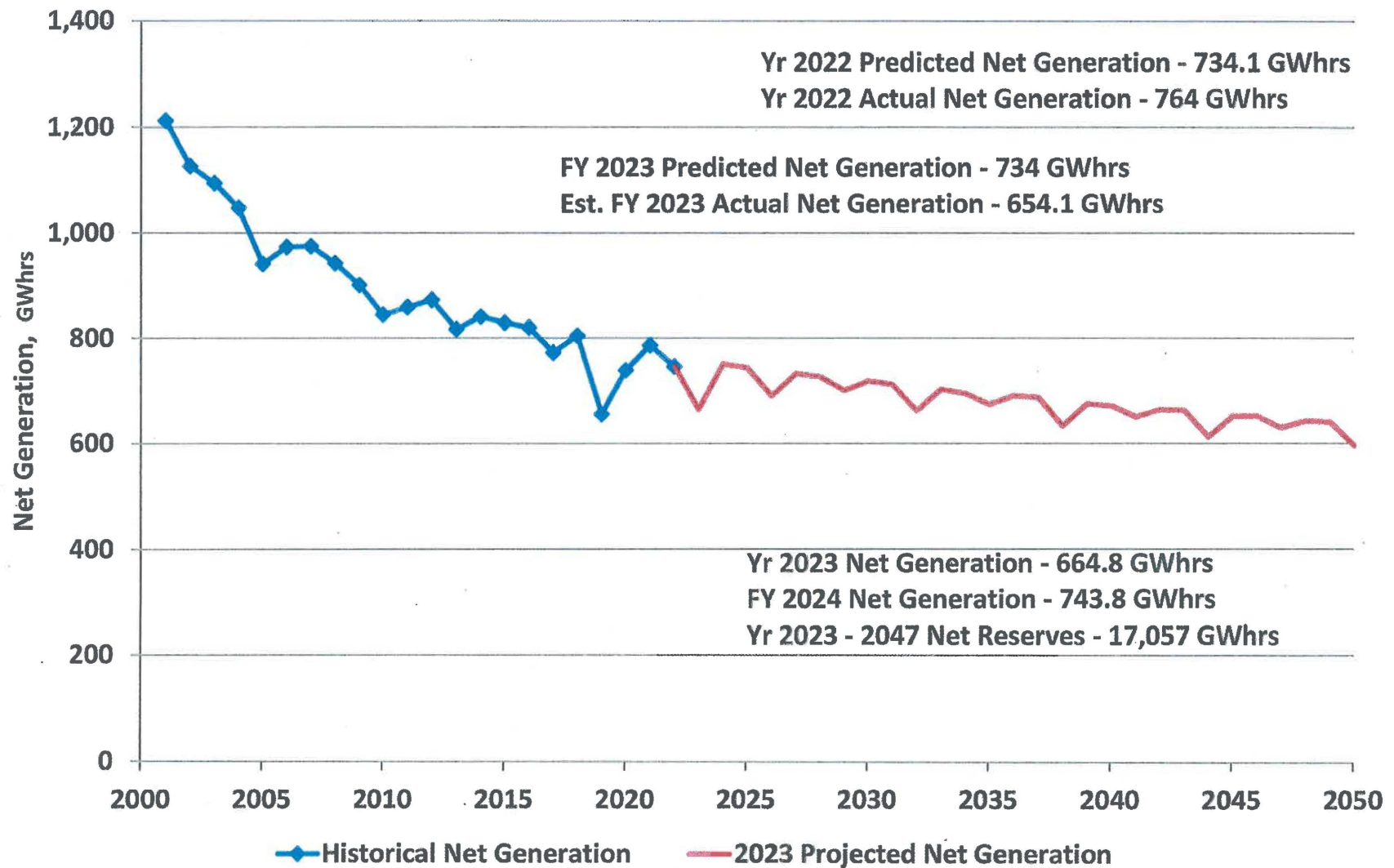
Historical and Projected Average Net Generation Level Combined NCPA Plants #1 & #2

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 2022 (in 1000 Gallons)**

		Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Condensate ⁽¹⁾	Effluent ⁽²⁾	Well Total
Well																
A-1	Condensate	18,108	6,176	15,069	27,916	24,687	16,663	24,778	19,029	12,345	14,299	30,673	27,206	236,950		292,919
	Effluent	1,854	387	190	-	7,785	11,485	10,394	10,687	2,251	7,563	445	2,929		55,969	
B-6	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-
C-5	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-
C-11	Condensate	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	
E-8	Effluent	7,183	12,177	10,517	-	12,693	7,628	-	-	-	-	-	-		50,198	60,198
D-7	Condensate	11,367	9,420	5,542	-	-	-	-	-	-	-	-	-	26,329		28,453
	Effluent	1,452	594	78	-	-	-	-	-	-	-	-	-		2,124	
F-4	Condensate	26,272	22,937	19,536	22,425	14,794	12,663	452	2,823	13,740	14,411	8,727	25,724	184,503		225,273
	Effluent	3,018	1,601	315	-	6,866	10,345	120	1,087	3,059	11,676	52	2,630		40,770	
H-1	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-
H-4	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-
J-6	Condensate	-	-	-	-	-	-	-	-	-	-	-	-	-		-
N-2	Condensate	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	
N-7	Condensate	-	-	-	-	-	-	-	-	-	-	-	2,128	2,128		20,401
	Effluent	-	-	-	-	-	-	-	-	4,619	13,516	-	138		18,273	
P-7	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-
P-9	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Q-10	Effluent	3,377	-	-	-	4,026	6,202	321	-	3,176	8,403	35	-		26,540	26,540
Q-3	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Q-4	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Q-7	Condensate	-	-	-	-	-	-	-	-	-	-	-	-			-
	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	
Q-1	Effluent	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Y-5		-	-	-	-	-	-	-	-	-	-	-	-			
Totals		72,631	53,292	51,247	50,341	70,851	64,986	36,065	33,626	39,190	70,868	39,932	60,755	Condensate(1) 449,910	Effluent(2) 193,874	Total 643,784
		During each month the % of Effluent Pipeline water that was fresh water withdrawn from Clear Lake:														
		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	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 Bold 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

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Generation (gross)										
(MWh)	886,004	922,995	903,299	887,299	833,211	874,403	711,902	833,866	841,946	813,753
(MW)	101.1	105.4	103.1	101.0	95.1	99.8	81.3	94.9	96.1	92.9
Generation (net)										
(MWh)	816,824	862,842	837,379	819,149	772,398	804,425	655,798	739,049	786,098	763,924
(MW)	93.2	98.5	95.6	93.3	88.2	91.8	74.9	84.1	89.7	87.2
Protocol										
(MW gross)	108	107	107	107	105	105	102	101	104	103
Steam Conversion										
(Lbs / Kw Gross)	18.99	17.33	17.20	17.00	17.10	16.76	16.97	16.31	16.78	18.39
Steam Delivered										
(Billion Lbs)	16.8	16.00	15.54	15.08	14.24	14.65	12.08	13.60	14.13	14.96
Load Flexibility (gross)										
Monthly High (MW)	109	110	110	110	103	105	110	107	109	104
Monthly Low (MW)	82	104	104	103	77	83	68	67	55	52
Injection										
Total (Billion Lbs)	17.96	12.39	14.86	21.21	15.78	13.19	13.57	6.95	5.48	5.37
Condensate (Billion Lbs)	4.21	4.62	4.20	4.94	4.64	4.36	3.86	3.29	3.80	3.75
Effluent (Billion Lbs)	13.75	7.77	12.50	16.27	11.13	8.83	9.71	3.67	1.68	1.62
Mass Replacement										
Annual (%)	106.7%	77.5%	95.6%	140.6%	110.8%	90.0%	112.3%	51.1%	38.8%	35.9%
Cumulative (%)	62.2%	62.6%	63.4%	65.2%	66.2%	66.7%	67.5%	67.2%	66.7%	66.0%
Wells Used For Injection										
	13	12	13	11	10	10	8	6	6	6
NCPA Micro-seismic Activity M>= 1.5										
	68	58	50	64	66	57	51	55	38	51
NCPA Micro-seismic Activity Maximum Magnitude Event										
	3.76	4.38	2.99	3.37	2.92	3.09	2.84	2.86	3.98	2.76
NCG Concentration (ppmw)										
	3,248	3,069	3,176	3,376	3,108	3,190	3,096	4,102	3,416	

Table 3
RESERVOIR PRESSURE
BY WELL 2023

WELL	PRESS	WELL	PRESS	WELL	PRESS	WELL	PRESS
A-3	68.0	D-1		H-1	69.7	P-1	
A-4	68.1	D-2		H-2	81.2	P-2	94.2
A-5	63.2	D-6	71.6	H-3	72.0	P-4	
A-6	68.4	D-7	68.3	H-4	68.3	P-5	125.9
A-SITE	66.9	D-8	64.9	H-5	68.4	P-6	115.9
		D-SITE	68.3	H-SITE	71.9	P-7	71.1
B-2	71.9					P-8	123.3
B-3	73.6	E-1	68.3	J-2	69.1	P-9	
B-4	69.3	E-2	73.1	J-3	75.5	P-SITE	106.1
B-5	68.3	E-3	77.2	J-4	85.7		
B-6		E-4	71.2	J-5	110.0	Q-1	
B-SITE	70.8	E-5	70.9	J-SITE	85.1	Q-3	62.5
		E-6	70.8			Q-4	66.6
C-1	58.1	E-8	71.5			Q-5	68.5
C-2	56.9	E-SITE	71.9			Q-6	67.5
C-4	60.2			N-1	61.4	Q-7	69.5
C-5	55.4	F-1		N-2	55.7	Q-8	70.1
C-6	56.0	F-2	67.1	N-3		Q-9	72.0
C-7	56.6	F-3	67.1	N-4	57.3	Q-SITE	68.1
C-8	63.5	F-4		N-5	57.0		
C-9		F-5		N-6	63.3	Y-1	69.5
C-10	62.2	F-6	64.6	N-SITE	58.9	Y-2	64.5
C-SITE	58.6	F-7				Y-3	
		F-SITE	66.3			Y-4	
						Y-5	
						Y-SITE	67.0

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

57 WELLS TESTED AVE. SHUT-IN WELL PRESS EQUALS 71.3 psig

AVE SITE PRESS EQUALS 71.6 psig

AVE. FLOWRATE = 28.6 kph at 40.2 psig

TABLE 4 NCG CONCENTRATIONS (PPMW) 2022 BY WELL, AND SITE AND PROJECT							
WELL		WELL		WELL		WELL	
A-3		D-1	3236	H-1	3838	P-1	
A-4	3707	D-2	2234	H-2	1142	P-2	2767
A-5	1906	D-6	2374	H-3	5206	P-4	1568
A-6	2373	D-7	3059	H-4		P-5	13945
A-SITE	2662	D-8	4406	H-5	3247	P-6	1524
		D-SITE	3062	H-SITE	3358	P-7	6909
B-2	5658					P-8	5576
B-3	5022	E-1	12669	J-2	5642	P-9	
B-4	3302	E-2	6007	J-3	3613	P-SITE	5381
B-5	4808	E-3	4817	J-4	6287		
B-6		E-4	7707	J-5	3096	Q-1	
B-SITE	4697	E-5	11218	J-SITE	4659	Q-3	4884
		E-6	5360			Q-4	3134
C-1	2616	E-SITE	7963	N-1	2723	Q-5	2012
C-2	5012			N-2	1434	Q-6	2418
C-4	3468	F-1	2238	N-3	4910	Q-7	20189
C-5	13186	F-2	7225	N-4	2839	Q-8	2386
C-6	6207	F-3	2104	N-5	4333	Q-9	3190
C-7	5494	F-4		N-6	2746	Q-A	
C-8	2881	F-5	1655	N-SITE	3164	Q-SITE	5459
C-9		F-6	1374				
C-A	1495	F-7	5375			Y-1	1652
C-SITE	5045	F-SITE	3329			Y-2	5224
						Y-3	11561
						Y-4	5255
						Y-5	
						Y-SITE	5923
VALUES ARE FROM NCPA CHEM LAB ANALYSIS							
Number of wells samples wells sampled=						62	
AVG. WELL NCG =						4765	
AVG. SITE NCG =						4559	
NCG Flow Weighted Avg. =						4289	

2023 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
2023	730.5	664.8	403.2	355.8	327.3	309.0
2024	834.9	751.4	503.1	441.0	331.8	310.4
2025	827.0	743.7	500.5	438.6	326.5	305.1
2026	768.9	690.3	439.9	382.6	329.1	307.7
2027	816.0	732.7	498.0	436.1	318.1	296.7
2028	810.0	726.7	498.1	436.0	312.0	290.7
2029	781.3	700.5	507.8	445.9	273.5	254.6
2030	801.8	718.3	495.6	433.5	306.1	284.8
2031	795.4	712.1	493.0	431.1	302.4	281.0
2032	741.0	662.1	434.7	377.2	306.4	284.9
2033	785.7	702.4	490.6	428.7	295.1	273.7
2034	778.4	695.3	489.4	427.5	289.0	267.8
2035	754.8	674.0	500.5	438.6	254.2	235.4
2036	773.9	690.4	488.3	426.3	285.6	264.2
2037	771.4	687.6	489.8	427.4	281.5	260.2
2038	712.3	633.6	427.0	369.7	285.3	263.9
2039	758.9	675.6	483.5	421.5	275.4	254.1
2040	754.6	671.3	483.6	421.5	271.0	249.7
2041	731.3	650.6	493.4	431.5	237.9	219.0
2042	748.1	664.7	481.3	419.2	266.9	245.5
2043	746.9	663.1	482.8	420.4	264.1	242.7
2044	691.1	612.2	422.2	364.7	269.0	247.5
2045	735.3	652.0	476.5	414.6	258.8	237.4
2046	735.8	652.1	475.4	413.5	260.4	238.7
2047	710.2	629.5	486.5	424.6	223.7	204.8

Notes:

1. Assumes 3 unit operation.
2. Steam Reserves: 333.4 Billion lb.
3. Gross Reserves: 19,096 GWhr
4. Net Reserves: 17,057 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.

2023 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
2023	60.9	53.6	40.6	38.0	101.5	91.5
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	49.1	46.6	109.7	99.6
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	43.7	96.0	95.8
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	33.9	31.3	92.7	82.6
2039	58.6	51.1	33.5	30.9	92.2	82.1
2040	58.5	51.0	33.2	30.6	91.7	81.6
2041	58.4	50.9	32.8	30.2	91.2	81.1
2042	58.2	50.7	32.5	29.9	90.7	80.6
2043	58.1	50.6	32.1	29.6	90.2	80.1
2044	57.9	50.4	31.8	29.2	89.8	79.7
2045	57.8	50.3	31.5	28.9	89.3	79.2
2046	57.7	50.2	31.2	28.6	88.8	78.7
2047	57.5	50.0	30.9	28.3	88.4	78.3

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

2023 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-23	56.8	53.2	56.8	53.2	0.0	0.0
Feb-23	63.1	58.8	37.1	34.2	26.1	24.6
Mar-23	38.2	36.3	2.5	2.3	35.8	34.0
Apr-23	57.8	52.4	24.7	20.9	33.1	31.5
May-23	59.7	54.1	25.5	21.5	34.2	32.6
Jun-23	44.3	40.1	18.9	16.0	25.4	24.2
Jul-23	59.7	54.1	25.5	21.5	34.2	32.6
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	64.5	58.1	37.3	32.7	27.1	25.4
May-25	70.9	63.7	42.9	37.6	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	33.6	31.8	0.0	0.0	33.6	31.8
May-26	48.3	41.2	20.7	15.4	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
Jan-27	70.1	63.0	42.7	37.4	27.4	25.6
Feb-27	63.3	56.8	38.6	33.8	24.7	23.1
Mar-27	70.0	62.9	42.7	37.4	27.3	25.5
Apr-27	63.6	57.2	37.2	32.5	26.4	24.7
May-27	69.9	62.8	42.7	37.4	27.3	25.4
Jun-27	67.6	60.7	41.3	36.1	26.4	24.6
Jul-27	69.9	62.7	42.6	37.3	27.2	25.4
Aug-27	69.8	62.7	42.6	37.3	27.2	25.4
Sep-27	67.5	60.6	41.2	36.1	26.3	24.5
Oct-27	67.1	60.2	42.6	37.3	24.5	22.9
Nov-27	67.5	60.6	41.2	36.1	26.2	24.5
Dec-27	69.7	62.5	42.6	37.3	27.1	25.2

2023 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-23	80.3	75.2	0.0	0.0	80.3	75.2
Feb-23	58.0	53.6	40.8	38.6	98.9	92.1
Mar-23	3.5	3.3	50.6	48.0	54.1	51.3
Apr-23	36.0	30.5	48.5	46.1	84.5	76.6
May-23	36.0	30.5	48.5	46.1	84.5	76.6
Jun-23	36.0	30.5	48.4	46.1	84.5	76.5
Jul-23	36.0	30.5	48.4	46.1	84.4	76.5
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	60.7	53.2	39.7	37.1	100.3	90.2
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	0.0	0.0	49.1	46.6	49.1	46.6
May-26	29.3	21.8	39.1	36.5	68.4	58.3
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
Jan-27	60.4	52.9	38.8	36.2	99.2	89.1
Feb-27	60.4	52.9	38.7	36.1	99.1	89.0
Mar-27	60.4	52.9	38.7	36.1	99.1	89.0
Apr-27	60.4	52.9	38.6	36.0	99.0	88.9
May-27	60.4	52.9	38.6	36.0	99.0	88.9
Jun-27	60.3	52.8	38.6	36.0	98.9	88.8
Jul-27	60.3	52.8	38.5	35.9	98.8	88.8
Aug-27	60.3	52.8	38.5	35.9	98.8	88.7
Sep-27	60.3	52.8	38.4	35.8	98.7	88.6
Oct-27	60.3	52.8	38.4	35.8	98.7	88.6
Nov-27	60.3	52.8	38.3	35.8	98.6	88.5
Dec-27	60.3	52.8	38.3	35.7	98.6	88.5

* Average generation levels plants are capable of achieving.

TABLE 7
2023 FORECAST OF GEOTHERMAL PRODUCTION AND
INJECTION

TIME STEP	DATE	STEAM	COND	WATER
		PROD. BLBS	INJ BLBS	INJ BLBS
1	2023	14.3	4.6	15.1
2	2024	14.2	4.6	15.1
3	2025	14.1	4.5	15.0
4	2026	14.1	4.5	15.0
5	2027	14.0	4.5	15.0
6	2028	13.9	4.4	14.9
7	2029	13.8	4.4	14.9
8	2030	13.7	4.4	14.9
9	2031	13.6	4.4	14.9
10	2032	13.5	4.3	14.8
11	2033	13.5	4.3	14.8
12	2034	13.4	4.3	14.8
13	2035	13.3	4.3	14.8
14	2036	13.2	4.2	14.7
15	2037	13.1	4.2	14.7
16	2038	13.1	4.2	14.7
17	2039	13.0	4.2	14.7
18	2040	12.9	4.1	14.6
19	2041	12.9	4.1	14.6
20	2042	12.8	4.1	14.6
21	2043	12.7	4.1	14.6
22	2044	12.7	4.1	14.6
23	2045	12.6	4.0	14.5
24	2046	12.5	4.0	14.5
25	2047	12.5	4.0	14.5

NOTES :

1. CUM. PRODUCTION AND INJECTION 1983-2022 725.6 Billion Lbs Steam
479.0 Billion Lbs Water
2. TOTAL WATER IS CONDENSATE + EFFLUENT + LAKE + POND
3. FUTURE STEAM PRODUCTION 2023-2047 = 333.4 Billion Lbs
4. FUTURE WATER INJECTION 2023-2047 = 369.4 Billion Lbs




Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: NCPA 2023 Wildfire Mitigation Plan Revisions; Applicable to the following: All Northern California Power Agency (NCPA) Facilities

AGENDA CATEGORY: Consent

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

IMPACTED MEMBERS:		
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/>		
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RECOMMENDATION:

Approve Resolution 23-46 for the NCPA 2023 Wildfire Mitigation Plan, with updated revisions based on the qualified independent evaluators recommendations and Wildfire Safety Advisory Board (WSAB) 2022 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. Annual independent evaluations of the Wildfire Mitigation Plan were conducted in 2020, 2021 and 2022, with minor revisions to the plan. Each revision has been approved in annual Commission Meetings.

NCPA contracted with Dudek, a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure, to complete the statutorily required three-year revision 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) and WSAB 2022 recommendations. The independent evaluation and report were completed April 27, 2023.

NCPA is now seeking Commission approval of the NCPA 2023 Wildfire Mitigation Plan, to include the recommended revisions provided by the qualified independent evaluator, revise the Wildfire Mitigation Plan from Version 1.3 to 2.0 to reflect the three year required update, and post the Wildfire Mitigation Plan 2.0 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:

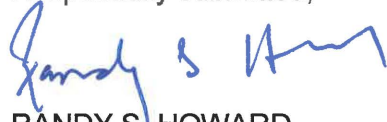
Work associated with this Project is categorically exempt under Class 1, 3, 4, and 11 Exemptions under CEQA guidelines 15061(b)(3), 15301(b), 15303, 15304, and 15311 and is therefore categorically exempt from CEQA. Class 1 is the "existing facilities" exemption, which includes the repair, maintenance, 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 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:

The recommendation above was reviewed by the Facilities Committee on May 3, 2023. Due to the lack of a quorum, no formal action was taken, however, the Members present at the meeting voiced their support for the recommendation, and no other meeting attendees had any objections.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution 23-46
- Northern California Power Agency Wildfire Mitigation Plan 2.0

RESOLUTION 23-46

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE NCPA 2023 WILDFIRE MITIGATION PLAN ASSESSMENT REPORT AND REVISIONS

(reference Staff Report #162:23)

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 15061(b)(3), 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 2023 Wildfire Mitigation Plan with updated revisions based on the qualified independent evaluators recommendations and Wildfire Safety Advisory Board (WSAB) 2022 recommendations.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023, 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST:

TRISHA ZIMMER
ASSISTANT SECRETARY

NORTHERN CALIFORNIA POWER AGENCY WILDFIRE MITIGATION PLAN 2023

VERSION 2.0

CURRENT VERSION DESCRIPTION

Version 2.0 – A comprehensive review of NCPA's 2023 Wildfire Mitigation Plan. NCPA's Commission approved this WMP on May 25, 2023 per Resolution 23-46. This WMP includes the Qualified Independent Evaluators (IE) Comprehensive Review Report describing revisions in Appendix 5. This version also includes tables in the attachment section of this report that outlines changes based on recommendations from the California's Wildfire Safety Advisor Board (WSAB) and best industry practices to meet the conditions within the PUC 8387 (B) requirements.

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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 (originally 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 November of 2022, NCPA initiated the development of this current WMP (Version 2.0). NCPA hired Dudek 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 comprehensive 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.

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. A similar process was followed with Dudek and NCPA's Commission in May of 2021 and 2022 for Versions 1.2 and 1.3.

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

Utility Name:	Northern California Power Agency
Size:	<1.5 square miles (39 miles x 200 feet ground clearance)
Assets:	Yes - Generation, Yes - Transmission (Only a generator tie line), Yes - Distribution (Only for NCPA Utilities')
Number of Customers:	Zero Customers. Wholesale provider to PGE Electrical Grid.
Customer Classes:	Zero Customers. Wholesale provider to PGE Electrical Grid.

Location Topography:	No - Urban, Yes - Wildland Urban Interface, Yes - Rural/Forest, No - Rural/Desert, No - Rural/Agricultural
Percent Territory in CPUC High Fire Threat Maps:	Yes - Includes Maps, 46% in Tier 2, 26% in Tier 3
CAL Fire Frap Map Fire Threat Zones:	Yes - Includes Maps, 28.5% Extreme, 11% Very High, 10% in High
Existing Grid Hardening Measures	Yes - Describes hardened & non-hardened infrastructure
Utility Fire Threat Risk Level:	No - Hi, No - Low, Yes - Mixed
Impact by another utility's PSPS?	Yes - Impacted by PGE PSPS
Mitigates impact of another utility's PSPS?	No - NCPA is a wholesaler of power feeding into PGE electrical grid.
Expects to initiate its own PSPS?	No - NCPA is a wholesaler of power feeding into PGE electrical grid.
Prevailing wind directions and speeds by season?	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.

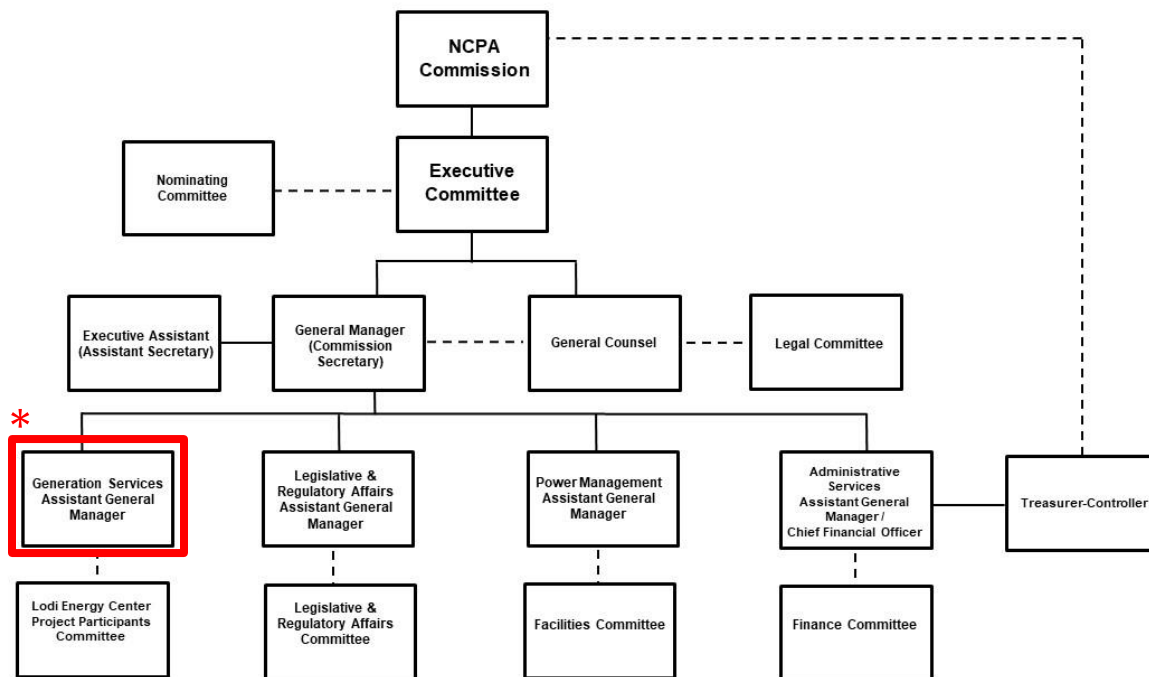
NCPA's current and planned wildfire risk mitigation activities will be formally reviewed annually according to this WMP regarding the effectiveness of ongoing practices, investigation of new technologies, and changing climate and ground conditions to continually prioritize the highest value activities for fire risk mitigation. These actions align with NCPA's Strategic Priorities of "Prepare" and "Value": *"Develop and maintain diverse generation resource portfolio in accordance with or exceeding renewable portfolio standard and capacity obligations"* and *"Develop and enhance strategies to control costs and minimize risks while optimizing the value of assets"*. These Priorities indicate the Agency's commitment to addressing the ongoing shift in service conditions for generation assets brought about by changing climate conditions, as embodied in California's Renewable Portfolio Standard, and to addressing the additional risks to energy deliverability brought about by increasing drought and aging transmission and distribution infrastructure.

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). Archived 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 38.144944, -120.380022	-	-	X	X	-
	New Spicer Meadows Powerhouse 38.393735, -119.999489	-	-	X	-	-
	McKay's Point Diversion Dam 38°14'3.70"N, 120°17'31.70"W	-	-	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 38.751915, -122.719932	-	-	X	-	X
	Plant 2, Middletown, CA 38.748348, -122.710913	-	-	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 480vac power)	-	-	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.

Note that NCPA does not have "Enterprise-wide" Safety Risks (as addressed under section 4.B of the CMUA template) as the Agency does not possess general responsibility over assets and geography except for locations tied to our specific generation assets, as outlined above.

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. Conversely, high levels of snow and rainfall also affect wildfire risk due to the potential for excessive vegetation growth and landslides which could affect target trees or infrastructure.

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.
- **Excessive precipitation:** Excessive precipitation can affect vegetation density and susceptibility of trees to toppling in high winds.
- **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, precipitation amount 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 (a risk that rises with both drought and excessive rainfall) 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. 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 typical of NCPA's Geothermal site. 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 Kincade 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. This risk is also elevated by adjacent facilities (CALPINE, PG&E) that could act as sources of ignition.
- **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.

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.

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.
- **PG&E/NCPA/Santa Clara/Department of Water Resources Cotenancy 230 kV line:** This co-owned line is operated and maintained by PG&E on behalf of the co-owners, and extends connection of the NCPA and adjacent CALPINE geothermal plant sites to PG&E substations located at Fulton and Lakeville substations. Annual maintenance practices on this line have been enhanced by implementing extended visual inspection techniques. These enhanced inspection techniques are acting to significantly reduce ignition hazards from potential line or connector failures. These practices are now subject to an annual coordination meeting between PG&E and NCPA on behalf of the other co-tenants.

- **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. This activity includes clearing of fire breaks along routes within the NCPA steam fields as shown in Appendix 5, resulting in reduced risk of fire spread.

(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,¹ 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:

¹ Adopted by CPUC Decision 17-12-024.

- 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

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 in NCPA's CMMS annual Preventive Maintenance process for the annual vegetation work plan for applicable power lines and other facility infrastructure (steam lines, switchyards, firebreaks). An example of firebreaks implemented to address risk of fire spread at the NCPA Geothermal site is provided in Appendix 5 to this Plan.
- 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. Relaying equipment on the 21 kV Bear Canyon line at the Geothermal site is also set to a "zero-reclose to lockout", requiring physical inspection of the line prior to restoration. 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.I.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.

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.

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. The notifications are provided via voice communication to primary and backup points of contact within each NCPA member utility. Attachment 1 to Procedure NCPA-PM-501 is included as Attachment D to this Wildfire Mitigation Plan.

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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 three metrics to measure the performance of this Wildfire Mitigation Plan. Metrics are evaluated yearly: (1) number of fire ignitions; (2) number of NCPA wires down; and (3) fall in hazard trees ignitions.

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.

2023 Metric Summary: GEO – 10 Locations, 0 Fall Ins; Hydro – 2 Locations, 0 Fall Ins.

7.B. IMPACT OF METRICS ON PLAN

NCPA plans to continue tracking these metrics as a method of documenting overall WMP success at identifying and containing risk. Additional metrics will be added to the WMP to help with identification of which lines are most susceptible to risk factors from unexpected outages (animal or vegetation induced), time-of-year risks including drought or excessive rainfall that could shift timing or scope of VM efforts and enhanced inspection requirements, as well as shifting fire threat district risks due to additional community developments adjacent to NCPA facilities or impact of maintenance deferment on existing lines. Through this metric review, NCPA will identify lines and other facility assets that are disproportionately impacted and could benefit by focused risk reduction measures that represent potential improvements to the plan.

2020 through 2023 WMP Impact Due to Metrics – The metrics above show zero incidents and indicate success.

Within the context of California's exposure to wildfire ignition risk resulting from "wires down" or "wire/tree interaction", NCPA operates an asset base in High fire risk territory that consists of roughly 35 miles of 230 kV transmission and just over 3 miles of 21 kV distribution. By contrast, PG&E operates in excess of 99,000 miles of transmission and distribution circuits within its service territory, experiencing an incident rate of 308 "wires down" or "wire/tree interaction" during 2022, for a rate of 0.3% per mile year (PG&E 2023-2025 WMP Revision 1 Figure PG&E-6.1.1-2, page 136). Assuming NCPA's track record is no better than PG&E, NCPA should expect to experience 0.12 incidents per mile year, or about one incident in 8.5 years. A "zero" metric would be indicative of success under NCPA's WMP program metrics, and should be sustainable for a period in excess of 10 years.

Acknowledging that the "zero" metric does not provide insight into NCPA's thorough inspection and maintenance activities to keep its transmission and distribution assets healthy, the Agency is considering addition of a metric to track total inspection observations for each overhead line asset. This will enable identification of locations where service conditions are contributing to a higher than normal number of observations and will assist risk reduction efforts by allowing focused attention on potential root causes for the elevated observation rate. NCPA anticipates investigation into historic line inspection records over the course of the 2023-2024 Fiscal Year that will enable verification of the usefulness of this metric.

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 and their alignment to the Agency's Strategic Priorities are defined in Section 2C. In support of these Priorities, the annual WMP review provides a framework for evaluation of the effectiveness of the Agency's plan, both in terms of the internal results achieved, but also in terms of the potential for shifting hazards resulting from ongoing drought (e.g., additional areas being designated as high fire threat) and weather induced changes (e.g., increased fire load as a result of high than historic rainfall totals). The Agency's strategy to assure availability of its assets involves an ongoing process of assessing risk and developing cost effective means to address those risks within the WMP (e.g., cooperative effort with Calpine to maintain fire breaks, use of WAPA for transmission line conductor repair and replacement), as reflected in the record of Agency annual WMP reviews and revisions. 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. Baseline comparison of results from adjacent drought and excessive rainfall years will inform earlier inspection timing and/or enhanced scope of the inspections. Developing metrics surrounding risks identified and mitigated will help reinforce a "zero-tolerance" approach for VM and equipment failure induced outages. Baseline of inspection practices with adjacent owners (PG&E and CALPINE) will also be used to evaluate effectiveness. 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.

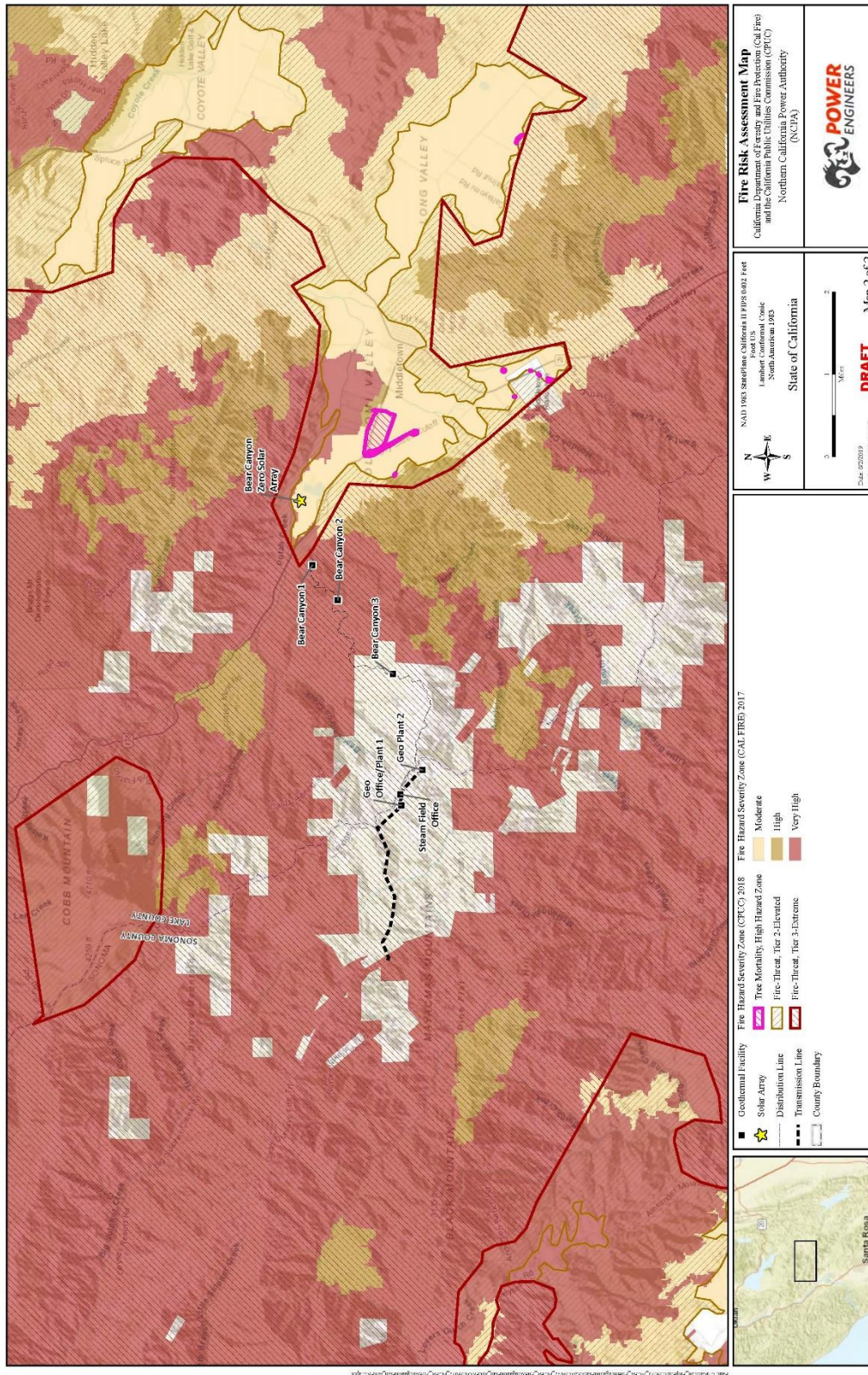
8. INDEPENDENT AUDITOR

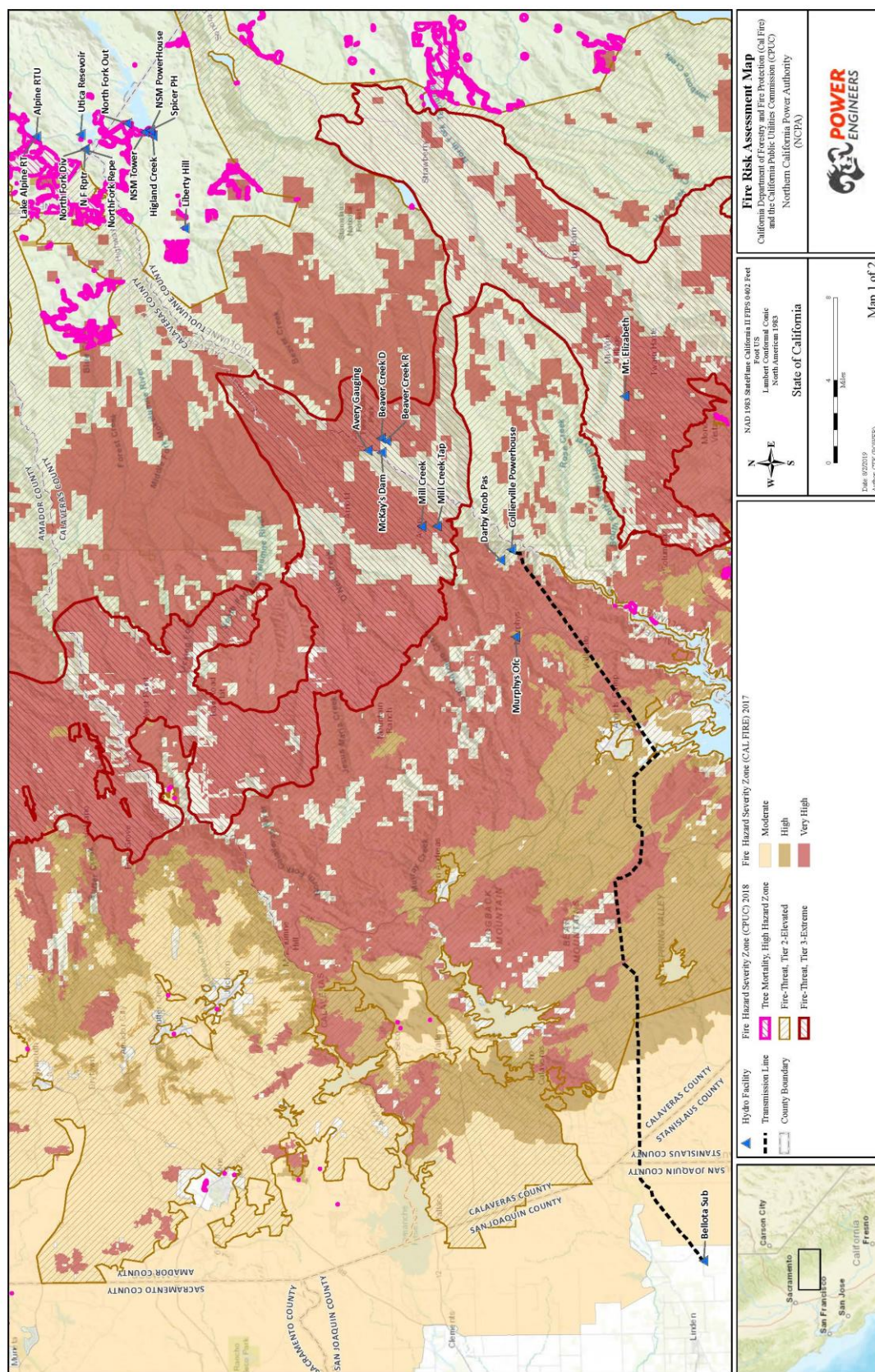
In 2019, NCPA anticipated that the CPUC would provide a list of qualified independent evaluators. In lieu of such a list, NCPA drew from a list it compiled following a Request for Qualifications issued in June 2019. The selection was based on competitive bid.

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 30th 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

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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).

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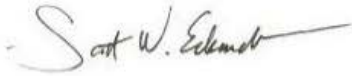
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April 2020

Mr. Jeremy Lawson

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

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

Sincerely,



Scott Eckardt, RPF
Project Manager

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

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April 2020

Required WMP Elements under PUC Section 8387(b)

PUC 8387(b)(2) Section	Description
A	An accounting of the responsibilities of the persons responsible for executing the plan.
B	The objectives of the wildfire mitigation plan.
C	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.
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 made that underlie the use of those metrics.
E	A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.
F	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.
G	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.
H	Plans for vegetation management.
I	Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.
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:
J(i)	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.
J(ii)	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.
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 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.
L	A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk.
M	A statement of how the local publicly owned electric utility will restore service after a wildfire.
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:
N(i)	Monitor and audit the wildfire mitigation plan.
N(ii)	Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.
N(iii)	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

853 LINCOLN WAY, SUITE 208
AUBURN, CALIFORNIA 95603
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.

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- 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&E's 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,



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.

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.

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.

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.

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.

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
1. Plan Structure – risk profile				
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. http://www.ncpa.com/bidding-opportunities-and-public-notifications/environmental-documents/	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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May 2021

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.
2. Plan Structure – approval process				
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.

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.
3. Plan Structure – independent evaluations				
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.
4. Plan structure – Utility groupings				

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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
5. Customer Impacts – PPS shutoffs				
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.
6. Customer impacts – communication plans				

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.
7. The Grid – hardening				
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.

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.
8. The Grid – inspections				
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.

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."	
9. The Grid – risks				
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.
10. Risk assessment – construction				
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.

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.
11. Risk assessment – situational awareness				
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: https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/psps-weather-	Meets WSAB recommendation.

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.			
12. Vegetation Management – utility requirements				
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.
13. Vegetation management – personnel qualifications				
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.

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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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

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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) 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.	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>re-evaluate</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

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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Subject: Independent Evaluator's Report of the Northern California Power Agency 2023 Wildfire Mitigation Plan

1 Introduction

The Northern California Power Agency (NCPA) contracted with Dudek to engage in an independent evaluation of its 2023 Wildfire Mitigation Plan (WMP). This independent evaluation report describes the technical review and evaluation of the WMP prepared by the NCPA. The WMP requirements are codified in California Public Utilities Code (PUC) Section 8387(b)(2) for local publicly owned electric utilities (POUs). PUC Section 8387(c) requires that an independent evaluator review and assess the comprehensiveness of a POU's WMP and issue a summary report. The year 2023 is important for POUs because they are required by PUC Section 8387(b)(1) to comprehensively revise their WMPs "at least once every three years."

Dudek conducted a review of NCPA's 2023 WMP from February 27 to May 5, 2023. The focus of the evaluation was to determine the comprehensiveness of WMP and ensure it included all elements required under PUC Section 8387(b)(2) (listed in Attachment A).

In addition to evaluating the elements required by the PUC, Dudek reviewed the Wildfire Safety Advisory Board's (WSAB's) specific guidance for the NCPA published in their Guidance Advisory Opinion for the 2023 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Rural Electrical Cooperatives (WSAB 2022).

This Independent Evaluator's report contains the following elements: (1) an overview of the NCPA, (2) A review of the statutory requirements in PUC Section 8387(b)(2) for local POUs, (3) A review of the specific recommendations published by the WSAB for the NCPA 2022 WMP, (4) 2022 wildfire mitigation and prevention accomplishments of the NCPA, (5) an overview of the metrics used the NCPA's WMP, and (6) a comparison of wildfire risk reduction strategies used by the NCPA with those used by similar utilities and municipal utility industry standards.

2 An Overview of the Northern California Power Agency

The NCPA's service territory consists of several geothermal and hydroelectric generating stations plus the tie-in lines that connect the NCPA facilities to their customers. NCPA's geothermal generating facilities are in the Coastal

Ranges, specifically the Mayacamas Mountains in Lake County, California. There are four facilities plus two 230 kV tie-in lines; one that is operated by the NCPA and that connects the NCPA's geothermal generating facilities to PG&E lines to the west, and a second that is not operated by the NCPA and connects to the CALPINE facilities and extends PG&E substations to the east. The lands surrounding the geothermal facilities are undeveloped except for access roads and are covered with continuous areas of forest, brush, and mixed forest-shrubland cover. It is worth noting that CALPINE's facilities, a group of geothermal generating plants, are also situated on the same geyser field as NCPA's. These two facilities have similar wildfire risks in terms of surrounding vegetation, terrain, and firefighter access. All NCPA's geothermal facilities and the related tie-in lines are in a tier 3 High Fire Threat District.

The NCPA's hydroelectric facilities are situated on the west facing slopes of the Sierra Nevada Mountains with the generating stations located in drainages at the near the bases of several dams in Calaveras and Tuolumne Counties. There are four facilities plus one 230 kV tie-in line and a 17kV service line. The lands surrounding the hydroelectric facilities are undeveloped except for access roads and the related water infrastructure (e.g., dams, spillways, etc.). Surrounding lands are covered with continuous areas of grasslands, brush, and mixed forest-shrubland cover. NCPA's hydroelectric facilities are located both inside and outside of the High Fire Threat Districts. Two facilities plus the 17kV service line are located within a Tier 3 area, one facility is located within a Tier 2 area, and one facility is not located in a High Fire Threat District. The 230 kV tie-in line extends from Collierville powerhouse to the east through Tier 3 and Tier 2 areas as well as passing through areas outside of the High Fire Threat districts in the Central Valley near Linden, CA.

Including all facilities, tie-in lines, and service lines, 46% NCPA's service territory lies within a Tier 2 area and 26% lies within a Tier 3 area. Since NCPA is a generator of electrical power not a distributor and their facilities are in remote areas away from urban or developed areas, none of their service territory is classified as Wildland Urban Interface (WUI).

The NCPA 's service territory experiences a fire season that lasts from May to October during a typical year. During exceptionally dry years, the fire season can begin in April and extend into November. Both the hydroelectric facilities and the geothermal facilities have a fire history that includes several wildfire perimeters burning within 1 mile of NCPA facilities or lines. The 2004 Geysers fire perimeter includes NCPA's geothermal generating facilities (CAL FIRE 2020).

3 Statutory Requirements for Wildfire Mitigation Plans

PUC Section 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 Attachment A and are summarized here for reference.

- Staff responsibilities
- General objectives
- Wildfire risk reduction program descriptions
- The metrics used to evaluate the WMP's performance.
- How the application of previously identified metrics has informed the WMP.
- Protocols for reclosers, de-energization, and public safety power shut-off.

- Procedures for community notification and outreach
- Vegetation management plans
- Electrical equipment and infrastructure inspection plans
- Description of 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 WMP and identify any deficiencies, and the effectiveness of electrical line and equipment inspections.

4 Public Utility Code Requirements

Dudek found that NCPA 's WMP meets the statutory requirements of comprehensiveness per PUC Section 8387. The review of the WMP's elements is summarized relative to the application of the WMP. Dudek's assessment is in **bold text** beneath the description of the requirement. The table in Attachment A lists each PUC required element for the NCPA 's WMP and provides Dudek's initial and final assessments of the comprehensiveness of that element.

Minimizing Wildfire Risks

PUC Section 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 NCPA 's WMP and the appendices referenced in the WMP comprehensively describe the safety-related measures that the NCPA follows to reduce its risk of causing wildfires. Dudek has determined that NCPA complies with this requirement through the design of its system, its operations, and the implementation of wildfire risk reduction and wildfire response strategies.

Evaluation of WMP Elements

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

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

Chapter 3 of the NCPA WMP comprehensively describes staff responsibilities and functions in the implementation of their WMP.

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

Chapter 2 of the NCPA WMP comprehensively describes the utility's WMP three objectives.

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

Chapter 5 in the NCPA WMP describes the utility's wildfire prevention strategies. It is very comprehensive, covering existing programs. System hardening/facilities upgrade information provided by facility.

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

Chapter 7 section A contains a description of the three metrics used by the NCPA in their WMP. Also included is 2020-2021 data for each metric.

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

Chapter 7 section B describes the NCPA's plans to continue tracking the three metrics described in in section A. Section B also provides a frame of reference for 'O' event metrics by comparing the NCPA's incident rate for wires down to PG&E's (NCPA's tie-in lines connect to PG&E lines).

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

Chapter 5 section H states that the NCPA does not use automatic reclosers on 230 kV lines (their tie-in lines).

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

Chapter 5 section J.2 describes the NCPAs customer notification protocols. This section contains an explanation of the notification methods and referenced NCPA policies (PM-501). Attachment D in the WMP has PM-501.

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

Chapter 5 section E contains a comprehensive description of the NCPAs vegetation management program including fuel breaks installed around their geothermal facilities. Appendix 5 in the WMP an example of the firebreaks NCPA has installed at their geothermal facilities. Based on conversations with NCPA staff, NCPA does not install fuel breaks at their hydroelectric sites because the hydroelectric sites are located on smaller, less accessible sites.

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

Chapter 5 section F of the NCPA WMP comprehensively describes the utility's inspection program including the type and frequency of inspections.

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

Chapter 4 section B in the NCPA WMP provides an overview of wildfire risk drivers in of risk drivers associated with design and construction standards.

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

Chapter 4 Section A in the NCPA WMP provides a comprehensive description of the geographic and climatological factors present across the NCPA service territory.

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

Chapter 4 Section C in the NCPA WMP describes the utility's review of the CPUC fire threat map and their conclusions about the geographical area of the high fire threat areas.

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

The introduction to chapter 4 describes that the NCPA does not have an agency-wide enterprise-risk identification and presentation. In its place is a safety policy for each type of generation asset (e.g., geothermal plant) that includes a risk-assessment process specific to that asset.

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

Chapter 7 of the NCPA WMP has a general overview of how the utility will restore service after an outage. Two NCPA policies are referenced PM-201 and GEO-646 that specifically address restoration of service.

8387(b)(2)(N)(i): Monitoring and Auditing WMP Implementation, 8387(b)(2)(N)(ii): Identifying and correcting WMP deficiencies, 8387(b)(2)(N)(iii): Monitoring and Auditing the effectiveness of inspections.

Chapter 7 section C, D, and E of the NCPA WMP describes the utility's processes for monitoring and auditing WMP implementation, correcting WMP deficiencies, and monitoring the effectiveness of inspections. NCPA uses an ongoing process to identify risks and inefficiencies, and to develop means to address the identified issues.

5 Wildfire Safety Advisory Board Guidance Advisory Opinions

In November 2022, the WSAB published a report with a description of general recommendations for improving the WMPs for POUs and rural electrical cooperatives. At the end of the report the WSAB provided specific recommendations for each utility that submitted a WMP for review by the board. Dudek reviewed the WSAB's report, and the section below contains a summary of each recommendation the WSAB had for the NCPA's 2022 WMP and whether the 2023 WMP has addressed the WSAB's recommendation (WSAB 2022). The materials published by the WSAB and the recommendations within are for guidance and are not statutory requirements.

1. The text on page 6 that indicates that the current WMP was initiated in 2019 and on page 7 a statement that this WMP was presented at an NCPA committee meeting – this is confusing as the 2022 updated is a complete WMP in itself. In the comprehensive revision in 2023, the WSAB expects that text like this will be resolved.

The dates on page 6 & 7 have updated to 2022 and the current version of the WMP.

6 Northern California Power Agency 2022 Progress in Implementing Wildfire Mitigation Plan Wildfire Prevention Strategies

This section describes the NCPA's accomplishments in 2022 for the wildfire prevention program and strategies described in the WMP.

Vegetation Management

Geothermal

- Completed annual maintenance of BLM firebreaks around Plant # 1 & # 2 in March 2022.
- Completed vegetation management and line clearance work along 230 kV tie-in lines and around all nine tower bases in June 2022.
- Completed annual maintenance of vegetation around Plant #1 & #2 perimeters plus along access roads in 2022.

Hydroelectric

- Completed annual maintenance of vegetation around powerhouses and substations in 2022.
- Completed vegetation management and line clearance work along 230 kV tie-in lines and around tower bases in April 2022.

Inspections

Geothermal

- 230 kV transmission line inspection completed July 21, 2022.
- 21 kV line inspection completed July 21, 2022.
- 230 kV Drone line inspection completed October 24, 2022. Conducted by PG&E, damaged conductor found by PG&E and repaired by WAPA.
- 230 kV Physical Inspections completed October 24, 2022

Hydroelectric

- 230 kV transmission line inspection completed March 15, 2022

- 17 kV line Wood pole inspections completed June 15, 2022
- 230 kV line daycore corona and IR inspection completed June 1, 2022
- 230 kV LiDAR transmission line inspection completed August 1, 2022
- NSM-Cabbage Patch 21 kV cable tests completed September 16, 2022

7 Wildfire Mitigation Plan Metric Overview

Metrics help POUs determine if their wildfire prevention strategies are effective for reducing the risk of a wildfire ignited by their electrical equipment. In 2020 the California Municipal Utilities Association published a WMP template for POUs to use in the preparation of their WMPs. This template included two metrics: number of fire ignition events and wires down events.

The NCPA adopted the two metrics suggested by the CMUA in the first and second iterations of their WMP. In 2022 the NCPA adopted an additional metric, Fall in Hazard Trees Ignitions. These three metrics: fire ignitions, wires down, and fall in hazard tree ignitions are utilized in the 2023 WMP.

The NCPA records metric data in monthly outage reports. For each event NCPA records date and time of the event, a description of the event and the cause of the event (if known), if the event was the result of an external cause, whether the outage was forced or planned, and how long the event lasted. If the event occurred along one the tie-in lines, then the location of the event along the line is described.

For the three metrics the NCPA recorded the following data in table 1 from 2020 to April 2023.

Table 1 Metric Event Record in 2020-2023

Metric	Geothermal	Hydroelectric
Fire Ignitions	0	0
Wire Down	0	0
Fall in Hazard Tree Ignitions	10 locations, 0 fall-ins	2 locations, 0 fall-ins

These three metrics with the supplemental data regarding date and time of the event, and cause of the event are useful for informing the NCPA about the effectiveness of their wildfire prevention strategies. Comparing their outage event rate on their transmission lines to PG&E's outage event rate for their transmission lines provides a good perspective on why the "0" metric events for the wire down metric is indicative of success and not an indicator of an ineffective metric.

The NCPA is considering adding metrics in future versions of the WMP including a performance-based metric that tracks overhead line inspection and includes location plus date & time data.

8 Comparison of Industry Standards and Similar Utility Wildfire Prevention Strategies

As part of this review of the NCPA's 2023 WMP, Dudek compared the wildfire prevention strategies described in the WMP to the strategies being implemented by POU's and accepted electrical industry practices for reducing wildfire risk. The NCPA is unique in that they are primarily a producer of electrical power whose transmission lines are limited to tie-ins with electrical utilities who provide the distribution of electrical power to retail customers. NCPA's service territory is unique in that their facilities including generators and tie-lines are dispersed in areas with no development save for infrastructure related to their operations. This is particularly important in that places a greater risk to their facilities from wildfire and greater responsibility for vegetation management/defensible space to protect their facilities. Therefore, there are no comparable POU's in the state and it is more appropriate to compare their wildfire prevention programs to a relevant industry standard such as the National American Electric Reliability Corporation (NERC), California Public Utility Code General Order 95 (GO 95), Public Resource Code 4292-4293, and CAL FIRE's California Power Line Fire Prevention Field Guide

8.1 Vegetation Management

The NCPA's vegetation management can be categorized as the vegetation management work done along their tie-in lines and the vegetation management work done around their facilities. For their transmission tie-ins the NCPA maintains the vegetation within the right-of-way of its transmission tie-in lines to NERC FAC-003-4. There is at least 30 feet of vertical clearance between the trees and vegetation along the tie-in lines and the wires. The corridors containing the transmission wires are typically one hundred feet in width except where terrain makes it unsafe to maintain the full 100-foot width. For their generation facilities the NCPA meets PRC 4292 & 4293 requirements as well as PUC GO 95 requirements, typically maintains a 50- to 100-foot-wide perimeter around structures.

8.2 System Hardening

Equipment Maintenance and Upgrades

All NCPA transmission line towers are entirely constructed of lattice or tubular steel and so are inherently noncombustible. Conductors and other electrical equipment attached to NCPA towers are also constructed of metal or other non-combustible materials. Transformers, circuits, and other types of electrical equipment located at substations are also constructed entirely of non-combustible materials and surrounded by a large area of bare ground. No system hardening or equipment upgrades would result in significant improvements to fire resistance of NCPA equipment. The NCPA inspects its transmission towers on a regular basis, issues with towers or tower equipment that is discovered during the inspection is repaired at the same time.

The NCPA utilizes wood poles for the 17kV distribution line at the McKay's point facility and a 21 kV lines at the NCPA's geothermal facilities. The NCPA recently rebuilt the 21 kV line and is in the process of upgrading the equipment on the 17kV.

Construction Standards

The NCPA has construction standards designed to reduce the risk of fire ignited by the failure of their electrical equipment, which include the use of animal deterrents, lightning arresters, and arc suppression fusing. The NCPA does not use expulsive fuses on any of its lines that pass over areas of vegetation.

Recloser Policy

The NCPA does not have reclosers on its 230 kV transmission lines. Relaying equipment on their 21kV Bear Canyon line is set to a zero-reclose to lockout scheme.

8.3 Situational Awareness

Patrols and Visual Inspections

The NCPA has a Transmission Maintenance and Inspection Program (TMIP) that meets the standards described in NERC FAC-501-WECC-3. NCPA regularly performs visual inspections of its equipment and lines including those in remote areas. Regular and thorough inspections particularly for transmission lines is a nationally accepted best practice for early equipment fault detection and hazardous vegetation identification.

9 Conclusion

The NCPA has prepared a comprehensive WMP for 2023. The plan meets all statutory requirements described in PUC Section 8387(b)(2) for a POU. The NCPA has also considered the recommendations of the Wildfire Safety Advisory Board and revised their WMP appropriately. The NCPA's WMP with the provided appendices describes a wildfire mitigation program that accurately assesses the risks and risk drivers present in their service territory and implements preventative strategies that are effective at reducing the wildfire risk of these risks and risk drivers.

Based on the wildfire prevention programs described in the WMP and the progress the NCPA has made in its wildfire prevention programs, the NCPA is taking an active role in minimizing the risk its equipment starts a wildfire and minimizing the risk a wildfire near their facilities can impact their operations.

Sincerely,



Jeremy Cawn
Fire Protection Planner

10 References

- Carlson, A.R., Helmers, D.P., Hawbaker, T.J., Mockrin, M.H., and Radeloff, V.C., 2022, Wildland-urban interface maps for the conterminous U.S. based on 125 million building locations: U.S. Geological Survey data release, <https://doi.org/10.5066/P94BT6Q7>.
- CAL FIRE. (2022, October 1). *Fire Perimeters through 2021*. Retrieved from Fire and Resource Assessment Program: <https://frap.fire.ca.gov/mapping/gis-data/>
- WSAB (California Wildfire Safety Advisory Board). 2022. Guidance Advisory Opinion for the 2023 Wildfire Mitigation Plans of Electric Publicly Owned Utilities and Rural Electric Cooperatives Draft. Office of Energy Infrastructure Safety. October 17, 2022. Sacramento, California. Retrieved from: Wildfire Safety Advisory Board | Office of Energy Infrastructure Safety ([ca.gov](https://www.ca.gov))

Attachment A

Northern California Power Agency WMP Review Summary Tables

CPUC Requirement

Public Utility Code 8387(b)(2)	Description of Required Element	Final Review Comment	Initial Review Comment
A	Staff Responsibilities	Good. Describes WMP responsibilities down to oversight of prevention strategies	Good.
B	General Objectives	Good.	Good.
C	Program Descriptions	Good.	Good.
D	Evaluation Metrics	Good.	Good.
E	Lessons learned, metrics application	Need to update text. WSAB expects that utilities will have a good understanding of whether their metrics are useful. Elaborate why '0' events means success.	Updated with a description of the use of metric data and plans to incorporate new metrics. Good.
F	Protocols for reclosers, de-energization, and PSPS mitigation	No reclosers. De-energization & PSPS-good.	Good.
G	Community Notification	Good. Either attached NCPA-PM-501 or briefly describe how NCPA communicates with PG&E and member agencies.	Updated with an explanation of notification methods. Good.
H	Vegetation Management	Good.	Good.
I	Infrastructure Inspections	Good.	Good.
J(i)	Grid Design, construction, and operation risks	Good. Include CALPINE facilities as a risk driver for your GEO operations.	Updated, added risk drivers for adjacent facilities. Good.
J(ii)	Vegetation, topographic, and climate risks	Comprehensive. Add in NCPA territory specific details. For example: Where do Diablo winds impact NCPA equipment or facilities? IS there a specific vegetation cover type that is high risk to the NCPA?	Updated, added detail about site or area specific risk drivers related to vegetation cover for geothermal and hydroelectric operations.

TO: JAMES MEANS

SUBJECT: INDEPENDENT EVALUATOR'S REPORT OF THE NORTHERN CALIFORNIA POWER AGENCY'S 2023 WILDFIRE MITIGATION PLAN

K	Identification and expansion of higher wildfire threat areas	Good.	Good.
L	Identify enterprise-wide risk	Missing	Resolved. NCPA does not utilize an enterprise-wide risk assessment process. Instead relies on location specific safety plans. Provides an equivalent level of safety
M	Restoration of Service	Good. Attach PM-201 and GE-646 to WMP if relevant.	Good.
N(i)	Monitoring and auditing of WMPs	Good. If NCPA evaluates the accomplishments or progress made with wildfire prevention strategies during the year, describe them here.	Good. NCPA staff provided spreadsheets with inspection and Veg. mgmt. accomplishments
N(ii)	Identifying and correcting deficiencies	Good. If NCPA adjusts wildfire prevention strategies during the year, describe them here.	Good. Detail added that NCPA use an ongoing process to review program accomplishments and changes in program priorities or goals due to changing conditions (e.g., weather)
N(iii)	Monitoring asset inspections	Good.	Good.

NCPA Specific WSAB Recommendations

WSAB 2023 POU WMP Guidance Advisory Opinion	Description of the WSAB Recommendation	Final Review Comment	Initial Review Comment
A3-40	The text on page 6 that indicates that the current WMP was initiated in 2019 and on page 7 a statement that this WMP was presented at an NCPA committee meeting – this is confusing as the 2022 updated is a complete WMP in itself. In the comprehensive revision in 2023, the WSAB expects that text like this will be resolved.	Update the text on page 6 that states "In 2019, NCPA initiated the development of this current WMP". NCPA completed the development of the initial WMP in 2020. It would be more accurate to state when you began your internal review and revision of the 2022 WMP. For example, "In November of 2022, NCPA initiated the development of this current WMP". Update the text on page 7 that states "In 2019, this WMP was presented at the NCPA Commission Meeting, a public meeting, and is posted on NCPA's public website domain" to state that the "2023 WMP will be adopted by the NCPA Commission and presented at the NCPA Commission Meeting, a public meeting, and after adoption by the commission this 2023 WMP will be posted on NCPA's public website domain."	Dates have been updated. Good.

NCPA WMP Comments

Location	Page	Initial Review Comment	Final Review Comment
5.A	20	Consider removing the 2020 accomplishments from this section or shortening the statement to "Major improvements and system hardening upgrades were made to this line in 2020".	Updated. Good.
5.H	25	This sentence is missing the word 'line' "..... or use automatic reclosers on its 230 kV within the scope...."	Corrected.

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 26 2022 per Resolution 22-58. This WMP includes the qualified Independent Evaluators (IE) report in Appendix 4.

Version 2.0 - NCPA Commission approved on May 25, 2023 per Resolution 23-46. This WMP includes the Qualified Independent Evaluators (IE) report in Appendix 5.

ATTACHMENT A - PUC 8387 (B) REQUIREMENTS TABLE

Attachment A: Index of Required Element Location in WMP

2023 WMP Required Element per PUC Sec 8387(b)(2)	2023 NCPA WMP section
(A): An accounting of the responsibilities of persons responsible for executing the plan.	3.B., 3.C.
(B): The objectives of the wildfire mitigation plan.	1.B.
(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.	5.A., 5.B., 5.C.
(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.	7.A.
(E): A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	7.B.
(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.	N/A – NCPA does not own or use automatic reclosers on its 230 kV lines (5.H.)
(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.	5.J.2.

(H): Plans for vegetation management .	5.E.
(I): Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	7.E.
(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.	(J): 4 (i): 4.B. (ii): 4.A.
(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.	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 methodology for identifying and presenting enterprise wide safety risk and wildfire-related risk.	4.B.
(M): A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.	7.
(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.	(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

2023 WSAB Recommended Elements	2023 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. This table should be incorporated into the WMP as Attachment A.	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. 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.	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. 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.	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. 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.	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.
(E): The WSAB recommends that the Independent Evaluators report contain a comparison of the utility's operations and equipment to	NCPA has addressed specific equipment and operational practices

relevant industry standards. 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.	to reduce the risk of wildfire within the service territory in section 5.A.of the WMP.
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ATTACHMENT C – WILDFIRE RISK ELEMENTS AND CONTROLS

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

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			Design and maintain Distribution and Transmission facilities in accordance with PG&E approved practices for wildfire fire prevention. De-energize facilities when needed during high wind/red flag conditions.	PG&E Greenbook Design Standards, Public Safety Power Shutoff (PSS) and PLPFG	3.C. Wildfire Response, Communication and Recovery and 5.A.(4) Asset documentation.
Dead limbs or trees contacting Distribution lines	X	X	Identify and remove dead and dying trees or limbs from area adjacent to lines.	TVMP and PLPFG	5.E. Vegetation Management
Increased tree mortality	X	X	Identify and remove dead and dying trees from area adjacent to lines.	TVMP and PLPFG	5.D. Tree Mortality
Trees encroaching on tower/overhead distances to transmission facilities	X	X	Identify and remove encroaching trees. De-energize facilities upon CAL FIRE request.	TVMP and Emergency Operating Guidelines, Collierville Power House Beloit-Collierville 230 KV Lines (PJM-201)	5.I. De-Energization
Fall-in trees resulting from landslides or trunk failures		X	Routine inspections and non-routine incidental observation.	PLPFG, Sections 12-19.	5.B. Potential Climate Change Effects
Fuses or conductors dropping molten metal		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.	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	3.C. Wildfire Response, Communication and Recovery; 5.A.(4) Asset documentation; 5.H. Reclaimer Policy and 7. Restoration of Service.
Untimely fire department response	X		Emergency Action Plan (EAP) Training and Coordination with local agencies	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)	1.B.1. Coordination with Local Agencies 5.A.(1) Facility Maintenance Program and 5.A.(2) Emergency Operating Procedures
Undetected equipment damage or failures	X	X	Routine inspections and non-routine incidental observation	EAP training for all field personnel. Monthly safety meetings	5.G. Fire Prevention, Safety, Emergency Response Training
Uncoordinated wildfire response	X		Personnel training and notification to Dispatch center for coordinated response.	Mutual aid agreements with member utilities, California Utilities Association (CUMA) and American Public Power Association (APPA) for Distribution assets. WAPA agreement for maintenance and repair of Transmission assets	3.F. Mutual Aid Agreements
Staff unaware of wildfire risk or response	X		Personnel training and seasonal awareness reminders.	Routine patrols of Distribution lines, NERC FAC-003 inspections in accordance with (IAW) NCPA procedure GM-305	5.C. Potential Climate Change Risk Management Practices
Extended timeframe for fire event recovery		X	Leverage additional line personnel and resources via mutual aid agreements.	EAP Coordination with CAL FIRE for wildfire ignition	5.B. Potential Climate Change Effects
Extended drought conditions				Monthly plant safety meetings	3.B. Wildfire Prevention Organizational Responsibilities
Underbrush damage from fires	X		Routine inspections and non-routine incidental observation.	TVMP and PLPFG	5.A.(3) Vegetation Management Program
Vegetation stress or species changes	X		Awareness and response.	GS-111 (Hot Work Procedure) and GS-116 (Welding Safety Procedure)	5.G. Fire Prevention, Safety, Emergency Response Training
Lightning strikes		X	Awareness and periodic personnel training.	Annual review of Wildfire Management Plan including Fire Hazard Zone classifications	2.C. Identifying Unnecessary or Ineffective Actions. 4.C. Changes to CPUC Fire Threat Map and 7.C. Monitoring and Auditing the Plan.
Vegetation clearing operations		X	Awareness and periodic personnel training.	NCPA GS-304 Protection System Maintenance and Testing Program	5.A.(1) Facility Maintenance Program
Hot Work		X	Awareness and periodic personnel training.		
Undetected fire risk change	X		Periodic review of fire risk categories.		
Protective device delayed clearing		X	Annual review of protective equipment calibration and testing records. Periodic (every 6 years) verification of protective device operating time IAW NERC PRC-005		



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: Approval of the Revised Debt and Interest Rate Management Policy

AGENDA CATEGORY: Consent

FROM:	Monty Hanks <i>MA</i> Assistant General Manager/CFO	METHOD OF SELECTION: N/A
Division:	Administrative Services	
Department:	Accounting & Finance	

IMPACTED MEMBERS:		
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"/>
<p><i>If other, please specify</i></p> <p>_____</p> <p>_____</p>		

RECOMMENDATION:

Approve Resolution 23-47 adopting the revised Debt and Interest Rate Management Policy, dated May 2023.

BACKGROUND:

The Commission has approved a Debt and Interest Rate Management Policy (“Debt Policy”) to set forth the policies that govern the implementation, management, and use of Northern California Power Agency’s (“NCPA” or “the Agency”) debt obligations, including any Fixed Rate Debt, Variable Rate Debt or Interest Rate Swaps. The Debt Policy serves as a guide for the Agency (staff, Commission, Finance Committee, legal counsels, financial advisors, and the banking team) in the administration of NCPA’s debt portfolio. Today, NCPA has almost \$500 million in long-term, fixed-rate debt. Although the Agency recently terminated the interest-rate swap and fixed out the variable rate debt, the Debt Policy includes guidance on both, credit risk mitigation, reporting, and disclosure procedures.

At the February Finance Committee meeting, the group discussed the current policy recognizing that it appeared overly complex and complicated to understand but was probably created at a time when derivatives (swaps) became of general use and not well understood. In addition, the policy was missing some of the latest practices such as disclosure requirements and procedures. The Committee unanimously recommended having staff overhaul and streamline the policy aligning it closer to the Members’ debt policies and including new sections bringing the policy to today’s practice standards.

In collaboration with the Agency’s bond counsel and financial advisor, a thorough review and rewrite of the Policy were completed to add context, clarification, and/or streamline, where appropriate. A separate “Swap Guidelines” was added as an Appendix should the Agency enter into a new swap in the future. Staff also used the California Debt and Investment Advisor Commission’s (CDIAC) “Employing a Debt Management Policy” as an additional resource for revisions. The Debt Policy continues to address key aspects of issuing, monitoring, compliance, and reporting on debt obligations. A copy of the Debt Policy has been attached.

FISCAL IMPACT:

There is no fiscal impact in approving the revised Debt and Interest Rate Management Policy.

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:

On May 9, 2023, the Finance Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Randy S. Howard", is written over the printed name.

RANDY S. HOWARD
General Manager

Attachments:

- Resolution 23-47
- Debt and Interest Rate Management Policy

RESOLUTION 23-47

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING THE REVISED DEBT AND INTEREST RATE MANAGEMENT POLICY
(reference Staff Report #165:23)**

WHEREAS, the Northern California Power Agency (NCPA) has a debt portfolio of almost \$500 million in long-term, fixed-rate debt; and

WHEREAS, prudent debt management practice supports the establishment of policies that govern the implementation, management, and use of NCPA's debt obligations, including any Fixed Rate Debt, Variable Rate Debt, and/or Interest Rate Swaps; and

WHEREAS, the NCPA Commission last reviewed and approved the Debt and Interest Rate Management Policy (Debt Policy) in May 2019; and

WHEREAS, the Debt Policy requires a periodic review of the Debt Policy to update for changes in bond markets, regulations, and new financial products; and

WHEREAS, the Finance Committee recommended having staff overhaul and streamline the Debt Policy aligning it closer to the Members' debt policies and including new sections bringing it to today's practice standards; 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

WHEREAS, the Finance Committee has reviewed the proposed revisions to the Debt Policy and recommends approval; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency adopts the revised Debt and Interest Rate Management Policy. And allow for any non-substantive editing of minor formatting, grammatical, or spelling errors within the document to be made by the Commission Assistant Secretary.

PASSED, ADOPTED, and APPROVED this ____ day of _____, 2023 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST:

TRISHA ZIMMER
ASSISTANT SECRETARY



DEBT & INTEREST RATE MANAGEMENT POLICY

NORTHERN CALIFORNIA
POWER AGENCY



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NORTHERN CALIFORNIA POWER AGENCY DEBT & INTEREST RATE MANAGEMENT POLICY

INTRODUCTION

The Northern California Power Agency (the “Agency” or “NCPA”) has developed this Debt & Interest Rate Management Policy (the “Debt Policy”) to provide guidelines for the implementation and management of the issuance of bonds and other forms of indebtedness to finance necessary land acquisitions, construction, equipment, and other capital requirements of the Agency.

While the issuance of debt is frequently an appropriate method of financing, such issuance must be carefully monitored to preserve each Project’s credit strength and to provide the necessary flexibility to fund future capital needs.

AUTHORITY

The Agency will invite to a Finance Committee meeting, all participants in the Project subject to the proposed transaction to express their views as to whether to recommend the proposed transaction to the Commission for its consideration. Any objection by a participant shall be considered. The General Manager, with the concurrence of outside bond counsel and the Agency’s General Counsel, shall determine whether the proposed debt obligation is legally valid and complies with any applicable provisions of the Agency’s legal agreements. The General Manager must obtain a recommendation from the Finance Committee prior to Commission approval of the proposed transaction.

The Agency, under the authority of the General Manager, executes debt instruments, oversees the accounting and reporting of debt, administers debt proceeds, manages continuing disclosure and debt compliance requirements, and makes debt service payments while acting with prudence, diligence, and attention to prevailing economic conditions. The General Manager may delegate such authority to the Chief Financial Officer (CFO) with the assistance of the Treasurer-Controller and/or General Accounting staff.

SCOPE

This Debt Policy shall govern, except as otherwise covered by the law and the Agency’s By-Laws, the issuance and management of all debt and lease obligations funded in the capital markets. While adherence to the Debt Policy is desired, the Agency recognizes that changes in the capital markets as well as unforeseen circumstances, may from time to time produce situations that are not covered by the Debt Policy and may require modifications or exceptions to achieve Agency goals. As appropriate, the CFO shall seek General Manager and/or Commission’s direction and approval. Any said modifications or exceptions will be reported to the Finance Committee.

The Agency’s staff and the Finance Committee shall review, and update if necessary, the Debt Policy on a biennial basis and recommend appropriate changes to the Commission for approval.

OBJECTIVES

The Debt Policy will guide the Agency in determining appropriate uses of debt financing, establish certain debt management goals and assist the Agency in maintaining strong credit ratings while assuming a prudent level of financial risk and preserving the Agency's flexibility to finance future capital programs and requirements. Additionally, the Debt Policy is intended to set forth criteria for selecting firms to provide certain financial, legal, and other services related to the issuance and subsequent monitoring and reporting of the debt.

DEBT ISSUANCE

When evaluating a proposed debt issuance (new money or refunding), the Agency will analyze and assess a number of debt financing considerations, as identified below, prior to seeking Commission approval. As a general rule, the Agency will consider and follow guidelines consistent with the Government Finance Officers Association Best Practices for Debt Management.

A. Types of Debt

1. Fixed Rate Debt

Longer-term debt usually consists of fixed interest rates over the term of the bonds and should be used to finance essential capital facilities where it is appropriate to spread the cost of the project over more than one budget year and structured with consideration of the expected life of the asset being financed. The Agency recognizes that the Project Participants' future ratepayers who will benefit from the project will pay a share of its cost. Fixed rate debt provides the benefit of fixed payments during the life of the bonds and budget certainties for long-term capital planning. However, fixed rate debt is typically longer term and carries higher interest payments (assuming an upward-sloping yield curve) than variable rate debt but it is not subject to changes in interest rates.

2. Variable Rate Debt

The municipal bond market has developed several vehicles by which public agencies can borrow at short-term, variable interest rates. These include (but are not limited to) variable rate demand obligations ("VRDOs"), indexed notes, put bonds, auction rate securities, and commercial paper.

Factors that will be considered in the use of variable rate debt are the availability and size of fund balances to cover variable rate risk and the budget flexibility of the program being financed. Other factors may include using short-term financing to fund uncertain construction cash flow requirements and allowing the debt to be refinanced as fixed rate debt once the project(s) are complete. Projects that anticipate grant funding may be another candidate for variable rate financing.

3. Derivative Products

The use of certain derivative products, such as swaps, swaptions, and the sale of call options, allows the Agency to realize lower all-in costs on a new debt issuance or to receive an upfront payment. One type of swap that may be used would allow the Agency to issue variable rate

debt in exchange for fixed payments that are typically lower than issuing traditional, fixed rate debt. However, such products have unique risks that the Agency and its professional advisors will evaluate per the Agency's Swap Guidelines attached in Appendix B.

B. Tax Status

1. Tax-Exempt

Interest on tax-exempt bonds is excluded from the gross income of its owners for federal income tax purposes and from California income taxes. As a result, tax-exempt bonds can be sold at a lower true interest cost than taxable bonds. The Agency, along with bond and tax counsels, will assess which projects are eligible to be funded with tax-exempt bonds. The Agency will make every effort to ensure compliance with all tax regulations in order to maintain their tax-exempt status.

2. Taxable

Certain municipal bonds are sold as taxable bonds because they are issued for purposes that the federal government deems do not provide a significant benefit to the public at large or involve "private activity". In addition, certain tax laws such as the alternative minimum tax (AMT) reduced the tax exemption applicable to certain types of bonds and taxpayers. Taxable bonds will be used whenever a particular project is deemed ineligible by tax counsel for tax-exempt financing.

C. Purpose of Financing

1. New Money Financing

New money issues are those financings that generate funding for capital projects. These funds will be used for necessary land acquisitions, construction, equipment, and other capital requirements of the Agency. New money bond proceeds are generally not used to fund operational activities.

2. Refunding Bonds

Refunding bonds are issued to retire all or a portion of an outstanding bond issue or other debt obligation. Most typically this is done to refinance at a lower interest rate to reduce overall debt service. Alternatively, existing debt obligations may also be refinanced from time to time to restructure the type of debt outstanding, the level and timing of future debt service payments or to take advantage of other identified market opportunities. In any event, a present value savings analysis must be prepared that identifies the economic effects of any refunding being considered by the Agency. The Agency will apply the following guidelines:

- For a Fixed Rate Debt refinancing of existing Fixed Rate Debt, the Agency will generally apply a minimum 5% Net Present Value Savings target for transactions that are expected to maintain the same level of risk related to the debt.

- For a refinancing of existing Synthetic Fixed Rate Debt, Variable Rate Debt, or Synthetic Variable Rate Debt transactions that is believed and expected to reduce the risk related to the debt, NCPA will generally seek to attempt to complete transactions that do not result in a Net Present Value Savings of less than 0%; however, the Policy does not preclude NCPA from executing a transaction that results in a Net Present Value Savings of less than 0% if the risk mitigation benefits are deemed to merit the cost.

A periodic review of the Agency's outstanding debt will be undertaken by the CFO in coordination with the Agency's Municipal Advisor to determine refunding opportunities and the results, if any, will be shared with the Finance Committee on a quarterly basis.

D. Types of Bond Sales

1. Competitive Sale

In a competitive sale, security dealers submit bids either in a sealed bid or electronically secure process, and the security dealer with the lowest True Interest Cost (TIC) and in compliance with the bid parameters, is awarded the bonds.

2. Negotiated Sale

In a negotiated sale, an underwriter or underwriter syndicate is selected by the issuer generally through a Request for Qualifications (RFQ) process or a Request for Proposal (RFP) process. The interest rate and underwriter's fee are negotiated prior to the sale, based on market conditions.

3. Private Placement / Direct Placement

A private placement is the sale of an issue of debt to one or a limited number of buyers, such as a bank, insurance company, or mutual fund, without a public offering. If the CFO, in concurrence with the Agency's Municipal Advisor and the Finance Committee, determines that it is in the best interest of the Agency from a cost or administrative standpoint, the Agency may negotiate financing terms with banks and financial institutions for specific borrowings.

E. Structural Features

1. Maturity

The final maturity of a bond sale shall be equal to or less than the remaining useful life of the assets being financed, and the average life of the financing shall not exceed 120% of the average useful life of the assets being financed.

2. Debt Service Structure

The Agency will carefully consider the debt service structure for each bond issue. Various factors will be considered such as the flow of revenues available for a particular credit, the need to fill in gaps created by refunding specific principal maturities or to structure savings

from a refunding in a particular year. Accelerated repayment may be considered within the bonding capacity constraints to provide additional capacity for future capital programs. Bonds will be amortized over a period of time not to exceed the useful life of the assets being financed.

3. Lien Levels

Senior, Junior, and Subordinated Junior Liens for each revenue source may be utilized in a manner that will maximize the most critical constraint – typically either cost or capacity – thus allowing for the most beneficial use of the revenue source securing the bonds.

4. Capitalized Interest

Subject to Federal and State law, interest may be capitalized from the date of issuance of the debt. Interest may also be capitalized for projects in which the revenue designated to pay debt service on the bonds will be collected at a future date, generally not to exceed six months from the estimated completion of construction. Any use of capitalized interest will require a review by bond and tax counsels and approval by the Commission.

F. Credit Enhancements

1. Bond Insurance

Bond insurance may provide improved credit quality for bonds as a result of the insurance provider's guarantee of the payment for principal and interest. Bond insurance will be considered when it provides an economic benefit to a particular bond maturity or the entire bond issue. A benefit analysis comparing the present value of the interest savings to the cost of the premium paid for such insurance is required to determine if bond insurance will be utilized.

2. Bank Facilities

When used for credit enhancement, letters of credit ("LOC") or standby bond purchase agreements ("SBPA") represent a bank's promise to pay principal and interest when due for a defined period of time, subject to certain conditions. Bank facilities may also provide liquidity support for bonds or other debt obligations subject to tender. These bank facilities are typically used to ensure variable rate debt has one of the two highest short-term ratings.

G. Issuer Characteristics

1. Market Familiarity

A frequent issuer of well-recognized credit can generally sell bonds through a competitive sale since investors and underwriters are familiar with the quality of the credit. A negotiated sale may be appropriate if extensive pre-marketing to investors is desired or required.

2. Credit Strength

The higher the credit quality of the bonds being issued, the more likely the bonds can be sold using a competitive sale due to the demand for high-quality municipal bonds. High-quality credits generally fare well in competitive sales.

3. Policy Goals

A competitive sale does not provide the Agency with the flexibility of choosing the underwriter or underwriter syndicate. If the CFO, in concurrence with the Finance Committee, concludes that determining the composition of the underwriter syndicate to achieve certain policy objectives is important, then a negotiated sale will be required. However, if a negotiated sale is selected solely for policy reasons, then the rationale and criteria for selection should be clearly specified.

H. Financing Characteristics

1. Type of Debt Instrument

The market typically favors familiar debt instruments such as California utility revenue bonds. New credit types may require an education process that is more conducive to a negotiated sale until the market becomes comfortable with the credit.

2. Issue Size

The size of the bond sale will influence both investor interest and the market's ability to absorb the bonds. For example, if the bond sale is too small or too large, a negotiated sale may be necessary for greater marketing efforts and/or presale activity.

3. Market Conditions and Timing

During periods of stable interest rates, market timing is not as critical. However, during periods of volatile interest rates, the timing of the sale becomes more critical. A bond refunding is often interest rate sensitive in terms of the potential level of savings or the general feasibility. The negotiated sale provides more flexibility in terms of the structure of the bond sale as well as the timing of the bond sale and may be more appropriate when issuing refunding bonds or when interest rates are volatile.

I. Credit Ratings

1. Use of Rating Agencies

The Agency seeks to obtain the highest possible credit ratings on all Projects, when applicable, for all categories of short- and long-term debt. The Agency may obtain a rating from at least one nationally recognized rating agency on all new bond issues or bond refundings being sold in the public market. The CFO, or his/her designee, and in concurrence with the Agency's Municipal Advisor, shall determine which major rating agencies will be asked to provide a rating, which may include one or more. Exceptions to this requirement, such as when using a private placement, are permissible.

2. Rating Agency Relationships

The Agency's CFO, or his/her designee, shall be responsible for maintaining relationships with the rating agencies that assign ratings to the Agency's various debt obligations. This responsibility shall include coordinating meetings, presentations, and/or providing document requests whether in conjunction with the issuance of debt or periodic updates on outstanding bonds. Full disclosure of operations and open lines of communication shall be maintained with the rating agencies used by the Agency. The Agency shall make every reasonable effort to maintain or improve its credit ratings.

HANDLING of BOND PROCEEDS

Proceeds of debt should be held either by a third-party trustee or by the Agency. A third-party trustee will disburse bond proceeds to the Agency upon submission of one or more written requisitions signed by an authorized Agency officer. If the funds are held directly by the Agency, they will be held and accounted for in a separate fund or account, the expenditure of which will be carefully documented by the Agency and subject to established internal controls consistent with the Agency's applicable policies and procedures to ensure proceeds are spent according to their intended purpose as well as all applicable limitations and regulations.

For bond proceeds meant to refund existing bonds, such funds will generally be held by a third-party trustee to be applied in connection with written directions generally prepared by or in consultation with bond and tax counsels to ensure funds are used according to legal requirements. The Agency will maintain records to and from third-party agents including but not limited to written direction, communication and records received, and the timely review of fund statements.

MONITORING and REPORTING REQUIREMENTS

NCPA's financing team will monitor any Fixed Rate Debt, Variable Rate Debt, and Interest Rate Swaps that the Agency has outstanding on at least a monthly basis. The CFO, or his/her designee, will provide a written report regarding the status of all Fixed Rate Debt, Variable Rate Debt, and Interest Rate Swaps at least on a semi-annual basis to the Finance Committee and to the Commission. Reports shall include the reporting guidelines identified in Appendix A.

COMPLIANCE with CDIAC REQUIREMENTS

In accordance with California Government Code Section 8855 (as in effect as of the date of the Policy) to the extent required thereby at the time of any debt issuance of NCPA (the "CDIAC requirements"), the Agency will submit a report of any proposed debt issuance to the California Debt and Investment Advisory Commission ("CDIAC" or the "commission") prior to the sale of a debt issue and, will submit a report of final sale to CDIAC after the sale of the debt, by a method approved by the commission.

The report of proposed debt issuance will include a certification by the Agency to CDIAC that the Agency has adopted a local debt policy concerning the use of debt and that the contemplated debt issuance is consistent with such policy.

ARBITRAGE REBATE

Upon the issuance of tax-exempt bonds, the Agency shall comply with all arbitrage rebate requirements as established by the Internal Revenue Service (the “IRS”). The CFO, or his/her designee, shall establish a system of record keeping and reporting to meet the arbitrage rebate compliance requirements of the federal tax code. This effort shall include tracking project expenditures financed with payments in compliance with tax law, and remitting any rebate earnings to the IRS in a timely manner in order to preserve the tax-exempt status of the Agency’s outstanding tax-exempt debt issues. The Agency may enter into agreements with arbitrage service providers to assist the Agency with complying with arbitrage regulations.

DEBT OBLIGATION DISCLOSURE POLICY

In connection with each publicly offered NCPA debt issuance, the Agency is subject to certain disclosure requirements of the Securities and Exchange Commission and other governmental agencies before and after the bond sale takes place. It is the policy of the Agency to provide fair and accurate disclosure in its offering documents, continuing disclosure filings, and other public disclosure statements that are intended (or reasonably can be expected) to be accessible to and relied upon by investors in its bonds and other debt instruments (collectively sometimes referred to as “Disclosure Documents”) that complies with applicable securities laws. It is further the intent of NCPA to satisfy in a timely manner its contractual obligations to provide certain ongoing information to the public debt markets under continuing disclosure undertakings entered into in connection with its financings.

The Agency will develop and implement disclosure procedures (the “Disclosure Procedures”) to guide and direct applicable officers and employees of the Agency in preparing, confirming, and dissemination NCPA Disclosure Documents consistent with this policy and the following principles and objectives:

A. Good Disclosure

To make a disclosure to investors that is sufficiently clear, concise, accurate, and complete to inform them about the underlying security and sources of payment for NCPA’s debt instruments and NCPA’s and its member agency obligors’ financial condition and results of operations (while advising them of material risks to future financial prospects);

B. Compliance with Law and Contractual Obligations

To assure compliance with applicable securities laws and applicable contractual requirements when preparing Disclosure Documents;

C. Reduce Liability

To avoid damage to NCPA’s reputation in the financial markets and reduce exposure to liability for misstatements and omissions in Disclosure Documents;

D. Preserve Credit Ratings

To preserve NCPA’s good credit ratings;

E. Transparency and Good Investor Relations

To provide transparency to investors, financial analysts, and the general bond market and promote good investor relations; and

F. Training

To provide regular training regarding municipal securities disclosure to assist NCPA officers and key staff of the Agency and its member agency obligors in understanding their roles and responsibilities in compliance with applicable securities laws.

APPENDIX A

DEBT & INTEREST RATE MANAGEMENT REPORT GUIDELINES

The CFO, or his/her designee, will provide a written report regarding the status of all Fixed Rate Debt, Variable Rate Debt, and Interest Rate Swaps at least on a semi-annual basis to the Finance Committee and to the Commission. Reports shall include the information identified below.

1. Highlights of all material changes to Fixed Rate Debt, Variable Rate Debt, and Interest Rate Swaps entered into by the Agency since the last report;
2. Highlights of any changes to Fixed Rate Debt, including any subsidy considerations, material bond proceeds fund investment issues, continuing disclosure reporting, escrow considerations, rating triggers, or other developments which might affect the expected continuity and performance of the Fixed Rate Debt;
3. The performance of Variable Rate Debt compared to relevant indices since the last report;
4. Tracking of future put dates, remarketing, Credit Enhancement renewals, and other pending dates of importance for the administration and continuation of Variable Rate Debt structures;
5. Changes to any fees paid to any third parties including Credit Enhancement providers, remarketing agents, etc.;
6. Marked-to-Market value of each of the Agency's Interest Rate Swaps;
7. The net impact to the Agency and Project Participants of a 50-basis point movement (up and down) in the appropriate swap market curves
8. For each counterparty, the Agency shall provide the total notional amount position, the average life of each interest rate Swap agreement, and the remaining term of each Interest Rate Swap agreement;
9. For each Interest Rate Swap, the actual yearly and cumulative savings versus the projected savings of entering into an Interest Rate Swap instead of a Fixed Rate Bond transaction;
10. The credit rating(s) and outlook(s) (making particular note of any rating changes) of each applicable Project including the credit ratings for each Interest Rate Swap counterparty and Credit Enhancement provider;
11. Actual collateral posting by the Agency and/or each Interest Rate Swap counterparty;
12. A summary of each Interest Rate Swap, including, but not limited to, the type of Interest Rate Swap, the rates and dollar amounts paid by the Agency and received by the Agency, and other terms;
13. Information concerning any default by a counterparty under an agreement with the Agency, and the results of the default, including but not limited to the financial impact to the Agency and its members, if any;
14. A summary of any Fixed Rate Debt, Variable Rate Debt, Interest Rate Swaps, and Credit Enhancements that were refinanced, redeemed, or terminated; and
15. Any other bond-related information or activity that may be of importance to disclose to the Commission.

APPENDIX B

SWAP GUIDELINES

INTRODUCTION

The Swap Guidelines are promulgated by the Agency to govern the use of Interest Rate Swap Agreements. Interest Rate Swap Agreements shall be used judiciously and must be approved by the General Manager, as detailed herein. "Interest Rate Swap Agreement" shall mean a written contract with a counterparty, entered into in connection with the issuance of debt by the Agency, in connection with Agency debt already outstanding, or as a hedge for future anticipated debt, to provide for an exchange of payments based upon fixed and/or variable interest rates. "Swaps" shall be inclusive of Swaptions which are options on Swaps.

CONDITIONS TO EXECUTE

A. Purpose

Interest Rate Swap Agreements may be used for the following purposes only:

1. To achieve significant savings as compared to other, non-derivative type products available in the bond market.
2. To prudently hedge risk in the context of a particular financing or the overall asset/liability management of the Agency.
3. To incur variable rate exposure within prudent guidelines.
4. To achieve more flexibility in meeting overall financial objectives than available in conventional markets.
5. To accomplish a financial objective not otherwise obtainable using traditional financing methods.

B. Legality

The Agency must receive an opinion acceptable to the market from a reputable law firm that the Interest Rate Swap Agreement is a legal, valid, and binding obligation of the Agency and Counterparty and the transaction is not prohibited by any applicable law.

C. Speculation

Interest Rate Swap Agreements shall not be used for speculative purposes. Associated risks will be prudent risks that are appropriate for the Agency to take.

PROCEDURE FOR SUBMISSION

Generally, the Agency shall procure Interest Rate Swap Agreements by competitive bidding, with at least three firms solicited. The Agency shall determine which parties it will allow participating in a competitive transaction taking into consideration, among other factors, the credit ratings of the swap counterparties. The Agency may procure by negotiated methods if it determines that a negotiated transaction would result in the most favorable pricing and terms or that doing so will promote its interest by encouraging and rewarding innovation. The Agency has the right to accept matching bids in order to decrease counterparty risk. The Agency will obtain an independent opinion from a Qualified Independent Representative ("QIR") that the terms and conditions reflect a fair market value of such agreement as of the date of its execution.

FORM and CONSENT

To the extent possible, an Interest Rate Swap Agreement entered into by the Agency shall contain the terms and conditions set forth in the International Swap and Derivatives Association, Inc. ("ISDA") Master Agreement, including the schedule, credit support annex, and confirmation. The schedule should be modified to reflect specific legal requirements and business terms desired by the Agency.

The Agency shall consider including provisions that permit the Agency to assign its rights and obligations under the Interest Rate Swap Agreement and to optionally terminate the agreement at its market value at any time. In general, the counterparty shall not have the right to optionally terminate an agreement.

The ISDA Master Agreement shall include the following events of default of a counterparty:

1. Failure to make payments when due;
2. Material breach of representations and warranties;
3. Illegality;
4. Failure to comply with downgrade provisions; and
5. Failure to comply with any other provisions of the agreement after a specified notice period.

RISK EXPOSURE

Before entering into an Interest Rate Swap Agreement, the Agency shall evaluate all risks inherent in the transaction. The risks to be evaluated may include counterparty risk, termination risk, rollover risk, basis risk, tax event risk, credit risk, and amortization risk. The Agency shall endeavor to diversify its exposure to counterparties. To that end, before entering into a transaction, the Agency should determine its exposure to the relevant counterparty or counterparties and determine how the proposed transaction would affect the exposure. The exposure should not be measured solely in terms of notional amount, but rather how changes in interest rates would affect the Agency's exposure "Value at Risk". The Value at Risk should be based on all outstanding derivative transactions of the Agency. Evaluation of risks will also include the following considerations:

1. Uncertainty with respect to the Agency's future debt obligations.
2. Effect on the Agency's credit quality.
3. Cumulative exposure to all risk factors identified.
4. Termination provisions of the swaps.

COUNTERPARTY SELECTION

The Agency may enter into an Interest Rate Swap Agreement if the counterparty or its guarantor has at least "Aa3" or "AA-" by one of the nationally recognized rating agencies and not rated lower than "A2" or "A" by any nationally recognized rating agency, or as otherwise approved by the Commission, and the counterparty has demonstrated experience in successfully executing Interest Rate Swap Agreements. If after entering into an agreement, the counterparty does not maintain the minimum ratings of Aa3/AA-/AA-, or as otherwise specified in the swap documents, then the agreement shall be subject to termination unless (a) the counterparty provides either a substitute guarantor or assigns the agreement, in either case, to a party meeting the rating criteria acceptable to the Agency, or (b) the counterparty (or guarantor) collateralizes the Interest Rate Swap Agreement in accordance with the criteria set forth in these Swap Guidelines and the Interest Rate Swap Agreement. In addition, if after entering into an agreement, a rating

of the counterparty is downgraded below Baa3/BBB-/BBB- or as otherwise specified in the swap documents, then the agreement shall be subject to termination unless the counterparty provides either a substitute guarantor or assigns the agreement, in either case, to a party meeting the rating criteria acceptable to the Agency.

COLLATERALIZATION

Should the rating of the counterparty, or if secured, the entity unconditionally guaranteeing its payment obligations, not satisfy the requirements of having at least two ratings of at least Aa3/AA-/AA-, or as otherwise specified in the swap documents, then the Agency's exposure to the counterparty shall be collateralized by (1) direct obligations of the United States of America, (2) obligations of which the principal and interest are guaranteed by the United States of America, or (3) direct obligations of US Agencies and such collateral shall be deposited with the Agency or an agent thereof, or as otherwise specified in the swap documents. Collateral requirements shall be subject to reasonable thresholds and minimum transfer amounts. The specific collateralization requirements for each interest rate swap transaction shall be set forth in the corresponding swap documentation.

IMPLICATIONS

In evaluating a particular transaction involving the use of Interest Rate Swap Agreements, the Agency shall review long-term implications associated with entering into Interest Rate Swap Agreements, including the cost of borrowing, historical interest rate trends, variable rate capacity, credit enhancement capacity, opportunities to refund the related debt obligations, and other similar considerations. The required minimum present value savings to the Agency of a swap transaction issued to refund outstanding debt shall be at least twice the minimum required for a fixed rate refunding to compensate for the inherent risks associated with the use of interest rate swaps, unless it is determined by the General Manager that it is in the best financial interest of the Agency to accept present value savings of less than twice the requirement for a fixed rate refunding. Such determination shall be documented in writing.

ACCOUNTING TREATMENT

The Agency shall reflect the use of Interest Rate Swap Agreements on its financial statements in accordance with generally accepted accounting principles, including the Governmental Accounting Standards Board pronouncements and guidance. Further, the Agency will provide appropriate swap disclosures to credit rating agencies, to investors in connection with bond offerings, and the municipal secondary market. Appropriate disclosure includes information about legal authority, risks, guidelines, and market value.

MONITORING

The CFO, or his/her designee, will provide a written report regarding the status of all Interest Rate Swaps at least on a semi-annual basis to the Finance Committee and to the Commission. Reports shall include the information identified in Appendix A – Debt & Interest Rate Management Report Guidelines. The Agency may use an independent Swap Advisor to assist NCPA staff in monitoring its existing or proposed swaps.

CONFORMANCE TO DODD-FRANK

It is the intent of the Agency to conform the Swap Guidelines to the requirements relating to legislation and regulations for derivatives transactions under Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, as supplemented and amended from time to time, including any regulations promulgated in connection therewith (herein collectively referred to as “Dodd-Frank”). Pursuant to such intent, it is the policy of the Agency that, with respect to each interest rate swap: (i) each swap advisor engaged or to be engaged by the Agency will function as the designated qualified independent representative of the Agency, sometimes referred to as the “Designated QIR”; (ii) each swap advisor will agree to meet and meets the requirements specified in CFTC Regulation 23.450(b)(1) or any successor regulation thereto (herein referred to as the “Representative Regulation”); (iii) each swap advisor will provide a written certification to the Agency to the effect that such swap advisor agrees to meet and meets the requirements specified in the Representative Regulation; (iv) the Agency will monitor the performance of each swap advisor consistent with the requirements specified in the Representative Regulation; (v) the Agency will exercise independent judgment in consultation with its swap advisor in evaluating all recommendations, if any, presented by any swap dealer with respect to transactions authorized pursuant to the Swap Guidelines; and (vi) the Agency will rely on the advice of its swap advisor with respect to interest rate swaps authorized pursuant to the Swap Guidelines and will not rely on recommendations, if any, presented by any swap dealer with respect to interest rate swaps authorized pursuant to the Swap Guidelines.



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: Approval of the Northern California Power Agency (NCPA) Investment Policy and Guidelines No. 200-100

AGENDA CATEGORY: Consent

FROM:	Monty Hanks <i>N/A</i> Assistant General Manager/CFO	METHOD OF SELECTION: N/A
Division:	Administrative Services	<i>If other, please describe:</i>
Department:	Accounting & Finance	

IMPACTED MEMBERS:			
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 23-48 authorizing revisions to NCPA's Investment Policy and Guidelines No. 200-100.

BACKGROUND:

Investment Policy

NCPA sets forth its objectives, risk preferences, authorized investments, and other investment-related priorities in its Investment Policy. The Investment Policy serves as a guide for setting and achieving investment goals, defines rules, and reduces exposure to liability and loss. While it has long been deemed good investment practice to have a written policy, it is considered a standard of best practice for government agencies to have a written policy and review it annually. The Agency's Investment Policy requires that the Treasurer-Controller shall annually submit to the Commission a statement of Investment Policy and any recommended changes.

Staff has reviewed the Investment Policy and compared it against California Government Code, Sections 53600 and 53635 et seq. and recommends the following: 1) addition of Investment's Term or Remaining Maturity in the Glossary to include the 2022 Government Code Section clarification that an investment's term or remaining maturity is to be measured from the time of settlement date to final maturity and may not be purchased with a forward settlement date exceeding 45 days from the time of investment; 2) addition of Conflict of Interest Code and Form 700 and best practice prudent investor language; 3) addition of new sections including Diversification, Maximum Maturity, Review of Investment Portfolio, Investment Pools/Mutual Funds, Finance Committee, and Investment Policy Adoption; 4) addition of broker requirements and filings language and Broker/Dealer Questionnaire Attachment; 5) updated collateralization requirements language; 6) revision of maximum investment per money market mutual fund from five percent (5%) per fund to twenty percent (20%); 7) clarification of performance benchmark language; 8) listing of Agency funds covered by policy; and 9) addition of general best practice language.

FISCAL IMPACT:

There is no direct dollar impact to this proposed policy. The resolution approves the Agency policy surrounding investments. The policy follows the California Government Code, Sections 53600 and 53635 et seq. and in some cases is more restrictive so that the Agency can achieve investment goals, define rules, and reduce exposure to liability and loss.

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:

The revisions to NCPA's Investment Policy and Guidelines No. 200-100 were reviewed by the Finance Committee on May 9, 2023, and were unanimously recommended for Commission approval.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments: Resolution 23-48
Investment Policy and Guidelines No. 200-100

RESOLUTION 23-48

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE INVESTMENT POLICY AND GUIDELINES REVISIONS

(reference Staff Report #166:23)

WHEREAS, the Northern California Power Agency (NCPA) Joint Powers Agreement specifies the laws regulating general law cities as being the law that applies to the Agency; and

WHEREAS, Chapter 4 of the California Government Code, Sections 53600 and 53635 et seq. deals with the financial affairs of local government agencies, including cities; and

WHEREAS, NCPA's Investment Policy and Guidelines No. 200-100 sets forth the objectives, risk preferences, authorized investments, and other investment-related priorities that serve as a guide for setting and achieving investment goals, defining rules, and reducing exposure to liability and loss; and

WHEREAS, staff has performed a review of policies related to the investment of NCPA funds and recommends making the following revisions: 1) addition of Investment's Term or Remaining Maturity in the glossary to include the 2022 Government Code Section clarification that an investment's term or remaining maturity is to be measured from the time of settlement date to final maturity and may not be purchased with a forward settlement date exceeding 45 days from the time of investment; 2) addition of Conflict of Interest Code and Form 700 and best practice prudent investor language; 3) addition of new sections including Diversification, Maximum Maturity, Review of Investment Portfolio, Investment Pools/Mutual Funds, Finance Committee, and Investment Policy Adoption; 4) addition of broker requirements and filings language and Broker/Dealer Questionnaire Attachment; 5) updated collateralization requirements language; 6) revision of maximum investment per money market mutual fund from five percent (5%) per fund to twenty percent (20%) per fund; 7) clarification of performance benchmark language; 8) listing of Agency funds covered by policy; and 9) addition of general best practice language; and

WHEREAS, the Finance Committee approved staff's recommended revisions to the Investment Policy and Guidelines No. 200-100 at their meeting on May 09, 2023; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency adopts policy revisions including addition of Investment's Term or Remaining Maturity in the glossary and clarification that an investment's term or remaining maturity is to be measured from the time of settlement date to final maturity and may not be purchased with a forward settlement date exceeding 45 days from the time of investment, addition of Conflict of Interest Code and Form 700 and best practice prudent investor language, addition of new sections including Diversification, Maximum Maturity, Review of Investment Portfolio, Investment Pools/Mutual Funds, Finance Committee, and Investment Policy Adoption, addition of broker requirements and filings language and Broker/Dealer Questionnaire Attachment, updated collateralization requirements language, revision of maximum investment per money market mutual fund from five percent (5%) per fund to twenty percent (20%) per fund; clarification of performance benchmark language, listing of Agency funds covered by policy, and addition of general best practice language. And allow for any non-substantive editing of minor formatting, grammatical, or spelling errors within the document to be made by the Commission Assistant Secretary.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST: TRISHA ZIMMER
ASSISTANT SECRETARY


	POLICIES & PROCEDURES MANUAL	No. 200-100	Effective: 9-1993 Updated 05-2023
		Owner: Accounting & Finance	
SUBJECT:	Investment Policy and Guidelines	APPROVED: RANDY S. HOWARD, GENERAL MANAGER	

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POLICY

It is the policy of the Northern California Power Agency (NCPA, the Agency) to secure, protect and manage the funds of the Agency and invest surplus funds in a manner which will:

1. comply with applicable California state and local laws and bond indenture provisions;
2. ensure prudent money management;
3. meet the objectives of the Policy, in priority of Safety, Liquidity, and Return on Investments;
4. provide an appropriate level of liquidity so that money is available when reasonably expected to be required for payment of obligations; and,
5. attain a market yield with no undue risks taken to maximize income at the expense of safety, liquidity, or investment quality.

PURPOSE AND SCOPE

The purpose of this policy is to establish general guidelines for the management of cash and investments of the Agency. The policy pertains to all financial assets of the Agency and any other funds under the control of the Treasurer-Controller and concerns the deposit, investment, maintenance, and safekeeping of all such assets.

The funds covered by this policy are consolidated for reporting purposes in NCPA's Annual Combined Financial Statements including:

1. Operating Fund
2. Scheduling and Coordination Program Agreement Balancing Account
3. Hydroelectric Capital Development Reserve
4. General Operating Reserve
5. Geothermal Decommissioning Reserve
6. Maintenance Reserve Funds
7. Other Collateral Reserves and Deposits
8. Debt Service Funds

Proceeds of debt issuance and other indentured funds shall be invested in accordance with the Agency's general investment philosophy as set forth in this policy; however, such monies are to be invested in accordance with permitted investment provisions of their specific bond indentures. See Attachment 6 (Table of Bond Indenture Permitted Investments).

This Policy does not apply to any pension moneys, deferred compensation funds, or the Other Post Employment Benefit Trust.

RESPONSIBILITY

The Treasurer-Controller is responsible for establishing proper safeguards, controls, and procedures to maintain Agency funds in a lawful, rational, and prudent manner. The Treasurer-Controller is responsible for the development of the overall investment policy as well as for the development and ongoing administration of the various portfolio strategies, tactics, performance monitoring and monthly reporting to the Commission.

The Assistant General Manager/Chief Financial Officer (CFO) is responsible for overseeing the development and implementation of investment policy review and approval of the portfolio investment strategies, and policy compliance.

PRUDENCE, PERSONAL RESPONSIBILITY, AND ETHICS

Prudence: The standard of prudence to be used by the Treasurer-Controller shall be the Prudent Investor Standard which shall be applied in the context of managing the Agency's overall portfolio. In making investment decisions on behalf of NCPA, the Treasurer-Controller is a trustee and therefore fiduciary subject to the Prudent Investor Standard as set forth in California Government Code Section 53600.3 which states:

“...all governing bodies of local agencies or persons authorized to make investment decisions on behalf of those local agencies investing public funds pursuant to this chapter are trustees and therefore fiduciaries subject to the prudent investor standard. When investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency. Within the limitations of this section and considering individual investments as part of an overall strategy, investments may be acquired as authorized by law.”

Ethics: The Treasurer-Controller and other authorized persons involved in the investment process (1) will refrain from personal business activity that could conflict with proper management and execution of the Policy and the investment program, or which could impair their ability to make impartial investment decisions and (2) shall not accept honoraria, gifts or gratuities from any advisor, broker, dealer, banker, or other person with whom the Agency conducts business, which has an aggregate value in excess of \$50.00 in any 12-month period.

The Treasurer-Controller must annually file a Form 700 (Statement of Economic Interests) in accordance with the NCPA Conflict of Interest Code. Furthermore, the Treasurer-Controller must refrain from undertaking personal investment transactions with the same individual(s) employed by the financial institution(s) with whom business is conducted on behalf of the Agency.

Personal Responsibility: The Treasurer-Controller and other authorized persons responsible for managing Agency funds, acting in accordance with the Investment Policy and exercising due diligence, will be relieved of personal responsibility for an individual security's credit risk or market price changes, provided appropriate action is taken to control adverse developments.

INVESTMENT OBJECTIVES

The overriding objectives of the investment program are to preserve principal, provide sufficient liquidity, and achieve a reasonable rate of return. The specific objectives for the program are ranked in order of importance:

1. **Safety:** Safety of principal is the foremost objective of the investment program. Investments will be undertaken in a manner that seeks to ensure the preservation of

capital in the overall portfolio. To attain this objective, NCPA will diversify its investments by investing funds among a variety of securities with independent returns.

2. **Liquidity:** The Agency's investment portfolio will remain sufficiently liquid to enable NCPA to meet all operating requirements that may be reasonably anticipated.
3. **Return on Investments:** The Agency's investment portfolio will be designed with the objective of attaining comparative performance measurement or an acceptable rate of return throughout budgetary and economic cycles taking into account the investment risk constraints identified in the Investment Policy and the cash flow characteristics of the portfolio.

PORTFOLIO RISK MANAGEMENT

Factors that can lead to an unexpected financial loss can be broadly grouped into the following categories; credit risk, market risk, and liquidity risk.

Mitigating credit risk in the portfolio: Credit risk is the risk that a security or a portfolio will lose some or all of its value due to a real or perceived change in the ability of the issuer to repay its debt. The Agency will mitigate credit risk by adopting the following strategies:

1. Diversify the investment portfolio to mitigate losses due to failure of individual issues or issuers;
2. Limit the amount of the total portfolio that may be invested in securities of a particular type and any single issuer. Authorized investment limitations under this policy are listed in Attachment 3 and shown in Attachment 4; and,
3. If securities owned by the Agency are downgraded by at least one Nationally Recognized Statistical Rating Organization (NRSRO) to a level below the quality required by this Investment Policy, it will be the Agency's policy to review and document the credit situation and make a determination as to whether to sell or retain such securities in the portfolio.
 - a. The Treasurer-Controller will use discretion in determining whether to sell or hold the security based on its maturity, the economic outlook for the issuer, and other relevant factors.
 - b. If a decision is made to retain a downgraded security in the portfolio, its presence in the portfolio will be monitored and reported monthly to the Commission.

Mitigating market risk in the portfolio: Market risk, also referred to as interest rate risk, is the risk that the portfolio value will fluctuate due to changes in interest rates. The Agency recognizes that, over time, longer-term portfolios have the potential to achieve higher returns. On the other hand, longer-term portfolios have higher volatility when marked-to-market. The Agency will mitigate interest rate risk by providing adequate liquidity for short-term cash needs, and by making longer-term investments only with funds that are not needed for current cash flow purposes. The Agency, therefore, shall adopt the following strategies to control and mitigate its exposure to market risk:

1. The Agency will maintain working capital reserves for budgeted operating expenditures in short-term investments to provide sufficient liquidity for expected disbursements;
2. The maximum time from investment, defined as the settlement date, to maturity of individual securities in the portfolio will be five years, except as otherwise stated in this policy.

Mitigating liquidity risk in the portfolio: Liquidity risk is the inability to convert a security to cash on a given date prior to maturity. It refers to the inability to sell a security for its cost and therefore it may have to be sold at a loss. The Agency shall employ the following strategies to control and mitigate its exposure to liquidity risk:

1. To the extent possible, match investment maturities with anticipated cash demands.
2. Since all possible cash demands cannot be anticipated, maintain portfolios largely of securities with active secondary or resale markets.
3. The Agency will maintain working capital reserves for budgeted operating expenditures in short-term investments to provide sufficient liquidity for expected disbursements.

AUTHORIZED AND SUITABLE INVESTMENT SECURITIES

All investments will be made in accordance with Sections 53600 *et seq.* of the Government Code of the State of California and as described within this Investment Policy. Authorized investments under this policy are listed in Attachment 3 (List of Permitted Investments) and shown in Attachment 4 (Table of Permitted Investments).

PROHIBITED INVESTMENT SECURITIES AND PRACTICES

1. Notwithstanding that any such investment is permitted under State Law, any investment not specifically described herein is prohibited, including, but not limited to derivatives, futures and options.
2. In accordance with California Government Code Section 53601.6, investment in inverse floaters, range notes, or mortgage derived interest-only strips is prohibited.
3. Investment in any security that could result in a zero-interest accrual if held to maturity is prohibited, with the exception of securities issued by, or backed by, the United States government that could result in zero- or negative-interest accrual if held to maturity, in the event of, and for the duration of, a period of negative market interest rates¹.
4. Trading securities for the sole purpose of speculating, whether on the future direction of interest rates or otherwise, is prohibited.
5. Purchasing or selling securities on margin is prohibited.
6. The use of reverse repurchase agreements, securities lending or any other form of borrowing or leverage is prohibited.
7. The purchase of foreign currency denominated securities is prohibited.

AUTHORIZED FINANCIAL INSTITUTIONS AND DEALERS

The Treasurer-Controller shall maintain a list of approved brokers, dealers, banks and direct issuers of commercial paper to provide investment services to the Agency. The Agency shall conduct security transactions only with approved institutions and firms. The firms and individuals assigned to NCPA shall be reputable and trustworthy. Broker/dealers staff assigned to NCPA accounts must have at least five years of experience in California public agency investing and knowledge of investment products acceptable under the NCPA Investment Policy.

¹ This provision sunsets on or after January 1, 2026, unless a subsequent bill amends Section 53601.6 of the Government Code.

To be eligible for approval, all broker/dealer firms must qualify under SEC Rule 15C3-1 (Uniform Net Capital Rule), must be registered with the Financial Industry Regulatory Authority (FINRA) and must be licensed to do business in the State of California and institutions shall have one or more of the following attributes:

- be recognized as a primary government dealer as designated by the Federal Reserve Bank;
- be a regional broker/dealer headquartered in the State of California; or
- be a national or state-chartered bank which is a member of the FDIC; or
- be a direct issuer of securities eligible for purchase by the Agency.

Broker/dealers and financial institutions will demonstrate their qualifications and compliance to State legal requirements by providing the following information to the Treasurer-Controller on and with the Agency's Broker/Dealer Questionnaire included in Attachment 5;

1. Proof of registration with FINRA
2. Proof of registration with the State of California
3. Completed Broker/Dealer questionnaire including certification of review and willingness to comply with all aspects of this Investment Policy
4. Audited financial statements for the three most recent fiscal years

Deposits will be made only in qualified public depositories within the state of California as established by State law. Deposits will be insured by the Federal Deposit Insurance Corporation, or, to the extent the amount exceeds the insured maximum, will be collateralized in accordance with State law and this Policy.

A pool of qualified financial institutions and dealers will be maintained by the Treasurer-Controller using criteria based upon capitalization, credit worthiness, experience, reference checks and services offered. Selection of financial institutions and broker/dealers authorized to engage in transactions with the Agency will be at the sole discretion of the Agency.

An annual review of the financial condition and registrations of broker/dealers and financial institutions may be conducted by the Treasurer-Controller and a current financial statement requested for each financial institution and broker/dealer with whom the Agency invests.

DELEGATION OF AUTHORITY, INTERNAL CONTROL, AND ACCOUNTING

Authority to manage the Agency's investment program is derived from the California Government Code Sections 53600 *et seq.* Management responsibility for the investment program is delegated to the Treasurer-Controller by Agency Commission Resolution No. 83-103. Pursuant to Government Code section 53607 such delegation may be granted for a period of one-year and must be renewed annually. No person may engage in an investment transaction except as provided under the terms of this policy and the procedures established by the Treasurer-Controller or his/her designee.

The Treasurer-Controller shall establish and maintain a system of internal controls designed to ensure: adherence to this investment policy, the prevention and detection of errors, theft, fraud, and misuse, the accuracy and completeness of accounting records and the timely preparation of reliable financial information. As such, the Treasurer-Controller shall establish an annual

process of independent review by an external auditor. This review will provide internal control by assuring compliance with policies and procedures.

The Agency maintains its records on the basis of Plant/Program account groups, each of which may include one or more investment funds. All investment transactions shall be recorded in the various funds of the Agency in accordance with Generally Accepted Accounting Principles as promulgated by the Government Accounting Standards Board.

SAFEKEEPING, CUSTODY, AND COLLATERALIZATION

All security transactions, including collateral for repurchase agreements, entered into by the Agency shall be conducted on a delivery-versus-payment (DVP) basis. In accordance with California Government Code Sections 53656 and 53658, securities will be held in the name of the Agency by a third-party custodian designated by the Treasurer-Controller and evidenced by trade confirmations and safekeeping holdings report or receipt. Such custodian may include a bank's trust department only if acceptable to both the bank and NCPA.

Collateralization will be required on two types of investments: Non-Negotiable certificates of deposit and repurchase agreements. In order to anticipate market changes and provide a level of security for all funds, the collateralization level will be 110% of market value for Non-Negotiable Certificate of Deposits to the extent the deposit is not insured by the Federal Deposit Insurance Corporation (FDIC) and 102% of market value of principal and interest for repurchase agreements.

In accordance with provisions of California Government Code Sections 53652, Agency deposits shall be secured by banks and financial institutions by one of the following: a) pledging government securities with a value of 110% of principal and accrued interest; b) pledging first trust deed mortgage notes having a value of 150% of the total NCPA deposit; or c) a letter of credit drawn on the Federal Home Loan Bank at 105% of the total Agency deposit.

DIVERSIFICATION

NCPA's portfolio will be suitably diversified by type and institution in an effort to reduce portfolio risk while attaining market average rates.

Security Type and Institution - U.S. Treasury securities and authorized pools, and any portfolio or institutional limits shall comply with California Government Code. Investments are further limited by specific language relating to each investment type as listed in Attachment 3 and shown in Attachment 4 of this Policy.

MAXIMUM MATURITY

To the extent possible, the Agency will attempt to match its investments with anticipated cash flow requirements. Unless matched to a specific cash flow, NCPA will not directly invest in securities maturing more than five years from the settlement date. NCPA matches cash flows of investments for final debt service requirements and may invest Debt Service Reserve funds fifteen years from the settlement date in accordance with respective bond covenants restrictions and Attachment 2 of this policy. NCPA matches cash flows for investment of the Geothermal Decommissioning Fund with future decommissioning activities and may invest funds up to ten years from the settlement date in accordance with Attachments 2, 3, and 4 of this Policy.

REPORTING REQUIREMENTS

In accordance with Government Code section 53607, the Agency Commission has delegated management responsibility for the NCPA investment program to the Treasurer-Controller, who has the responsibility to make a monthly report of transactions to the Commission during such delegation.

A monthly report will be provided to the Commission by the Treasurer-Controller. The report shall state compliance of the investment portfolio to the investment policy and a statement that the Agency has adequate cash flow and investment maturities to meet next month's cash requirements and such other information as may be required by State law.

The report will disclose, at a minimum, the following information:

1. An asset listing showing par value, cost adjusted for amortization of premiums and accretion of discounts and market value of each security, type of investment, issuer, and interest rate;
2. The Treasurer-Controller's report shall also provide:
 - a. an analysis of investment maturities;
 - b. a summary of cash and investment activity; and,
 - c. an analysis of interest rates/yields with a comparison to benchmark interest rates.

REVIEW OF INVESTMENT PORTFOLIO

The securities held by NCPA must be compliant with the Authorized and Suitable Investment Securities listed and reflected in the List of Permitted Investments (Attachment 3) and the Table of Permitted Investment (Attachment 4) at the time of purchase. Because some securities may not comply with the Authorized and Suitable Investment Securities subsequent to the date of purchase, the Treasurer-Controller shall at least annually review the portfolio to identify those securities that no longer comply. The Treasurer-Controller will assess all non-compliant investments and determine if the Agency will continue to hold the investments or sell them. The Treasurer-Controller will report all non-compliant securities to the Commission on the monthly Treasurer's Report until such time that the investment matures or the Agency sells them.

INVESTMENT POOLS/MUTUAL FUNDS

A thorough investigation of the pool/fund is required prior to investing and on a continued basis thereafter. Best efforts will be made to acquire the following information for each:

1. A description of eligible investment securities and a written statement of investment policy and objectives.
2. A description of interest calculations, how interest is distributed, and how gains and losses are treated.
3. A description of how the securities are safeguarded (including the settlement processes) and how often the securities are priced and the program audited.
4. A description of who may invest in the program, how often, and what size of deposits are withdrawals and allowed.
5. A schedule for receiving statements and portfolio listings.
6. About how reserves, retained earnings, etc. are utilized by the pool/fund.
7. A fee schedule and when and how fees are assessed.
8. About whether the pool/fund is eligible for bond proceeds and will accept such proceeds.

INVESTMENT OPERATIONS GUIDELINES

The following general operating guidelines shall be used in performing all investment functions:

1. All investments will be made in the name of the Northern California Power Agency.
2. All investments will be made in compliance with the NCPA Investment Fund Objectives (Attachment 2) and the NCPA List and Table of Authorized Investments (Attachments 3 and 4) unless otherwise required by bond indenture.
3. Investments or collateral for all outside trustee accounts must be delivered to the trustee.
4. Investments or collateral for all accounts held by NCPA will be delivered to and held in the safekeeping of an authorized financial institution.
5. All investment transactions will be recorded in the accounts of the Agency in accordance with Generally Accepted Accounting Principles as promulgated by the Government Accounting Standards Board. All accrued interest on purchased securities will be charged to the appropriate interest income account.
6. Funds deposited in banks or savings and loan associations must be held under a written contract between the Agency and the institution, which requires collateralization as prescribed by law and/or this investment policy.
7. Whenever practical Agency cash is to be consolidated and invested on a pooled concept basis. Interest earnings are allocated monthly according to monthly weighted average balance for each fund.
8. Unless otherwise restricted, all holdings will be of sufficient size and held in issues which are actively traded to facilitate transactions at a minimum cost and accurate market valuation.
9. Passive management portfolio strategies are preferred for all operating projects or other Agency programs, unless otherwise prohibited or restricted. The Agency purchases investments with the intention to hold to maturity. When it is in the best interest of its members and participants, the Agency may rebalance the portfolio consistent with its Investment Policy and Plan.
10. When practicable, competitive bidding will be utilized for all investment and reinvestment activities not involving escrowed or other funds covered by a separate contract or agreement.

FINANCE COMMITTEE

In accordance with Government Code Section 53646(a)(2), the Treasurer-Controller may annually render to the NCPA Commission and Finance Committee a statement of investment policy, which the Commission shall consider at a public meeting. The Agency By-Laws provide for a standing committee known as the Finance Committee. This policy shall be reviewed by the Treasurer-Controller annually, and any changes recommended by the Treasurer-Controller shall be reviewed for propriety and suitability and recommended for Commission approval by the Committee, prior to being submitted for review and approval by the Commission at a public meeting.

The Finance Committee is a standing, advisory committee that is subject to the Brown Act. Members of the Finance Committee, who may be either Commission members or other staff or officers of members, shall be appointed by the Chair and then ratified by the Commission. The Chair is ratified by the Commission. All Members of the Finance Committee shall have a

working familiarity with basic financial practices, and at least one Member of the Finance Committee shall have financial management expertise.

PERFORMANCE BENCHMARK

The investment portfolio will be designed to obtain a market rate of return during budgetary and economic cycles, taking into account the Agency's investment risk constraints and cash flow needs. The Finance Committee has elected to use the 12-month moving average Constant Maturity Treasury (CMT) Index for the performance standard of the portfolio's major funds with various maturities based on each fund's cash flow requirements. Benchmarks may change over time based on changes in market conditions or cash flow requirements. Changes in benchmarks will be discussed with and agreed upon by the Finance Committee prior to implementation. The revised benchmark will be reflected in the subsequent Investment Policy update submitted for Commission approval.

INVESTMENT POLICY ADOPTION

In accordance with Government Code section 53646(a)(2), The Treasurer-Controller may annually render to the Commission and Finance Committee a statement of investment policy, which the Commission shall consider at a public meeting. The NCPA policy shall be reviewed annually by the Finance Committee and recommended for approval to the Commission and any modifications made thereto shall be approved by the Commission at a public meeting and adopted by resolution of the Commission.

The Treasurer-Controller shall establish written investment policy procedures for the operation of the investment program consistent with this policy. The procedures shall include reference to safekeeping, master repurchase agreements, wire transfer agreements, banking and service contracts and collateral/depository agreements. *The procedures will explicitly identify the delegation of authority to persons responsible for investment transactions and related activities.* No person may engage in an investment transaction except as provided under the terms of this policy and the procedures established by NCPA.

REFERENCE

- California Government Code Section 53600 et seq.
- Joint Powers Agreement, Article II, Section 4.5 (as amended)
- NCPA Resolution No. 12-72, Authorized Officers for Transactions with the State of California Local Agency Investment Fund (LAIF)
- NCPA Resolution No. 83-103, Establishing the position of Treasurer-Controller

ATTACHMENTS

- Attachment 1 – Glossary of Investment Terms
- Attachment 2 – Investment Fund Objectives
- Attachment 3 – List of Permitted Investments
- Attachment 4 – Table of Permitted Investments
- Attachment 5 – Northern California Power Agency Broker/Dealer Questionnaire
- Attachment 6 – Table of Bond Indenture Permitted Investments
- Attachment 7 – Credit Rating Comparison

VERSION HISTORY

No.	Explanation	Date	Author
10	Added Conflict of Interest Code and Form 700 language, clarified language that investment's term is effective from the settlement date and added to Glossary; added Broker requirements language, annual review requirement, and Broker/Dealer Questionnaire in attachments. Updated collateralization language; included new sections for Diversification, Maximum Maturity, Review of Portfolio, Investment Pools/Mutual Funds, Finance Committee, and Investment Policy Adoption. Clarified maximum percentage of portfolio that can be invested per fund for mutual funds is 5% and revised maximum percentage per money market mutual fund to 20% in List and Table of Permitted Investments attachments; added clarification language in Performance Benchmarks; added clarification to Table of Permitted Investments; reorganized sections; general language cleanup.	05/23	SA
9	Added portfolio rebalancing, performance benchmark, and zero or negative interest accrual during periods of negative interest rates language. Added attachment for List of Permitted Investments, updated Table of Permitted Investments to include applicable government section codes, revise investment titles, reduce maximum investment in commercial paper, and updated rating requirement and other language.	05/22	SA
8	Increased maximum percentage of portfolio limit for municipal bonds to 30%. Added Attachment 3 footnote defining parameters for Agency purchase of members' municipal bonds and updated Attachment 4 footnote to specify 2019 Capital Facilities Indenture.	2/21	SA
7	Revisions to permitted investments; update note on Credit Ratings Comparison attachment to reflect minimum rating category of A.	2/20	SA
6	Minor language clean-up; updates to the Permitted Investments; and changes to the Investment Fund Objectives	8/17	MH
5	Revised a resolution reference Updated maximum investment permitted by LAIF Added Authorized Financial Institution	11/16	SA
4	Annual review, no changes	11/15	SA
3	Annual review, no changes	11/14	KWW

2	Combined prior policies 200-97 and 200-98; updated to include more information on allowable investments, delegations, authorized financial institutions, and operations practices, Includes expanded attachments and glossary.	11/13	KWW
1	Updated	9/95	DBL
0	Original Policy	9/93	DBL

ATTACHMENT 1

GLOSSARY OF INVESTMENT TERMS

Agencies - Shorthand market terminology for any obligation issued by *a government sponsored enterprise (GSE)*, or a *federally related institution*. Most obligations of GSEs **are not guaranteed** by the full faith and credit of the US government. Examples are:

- FFCB. The Federal Farm Credit Bank System provides credit and liquidity in the agricultural industry. FFCB issues discount notes and bonds.
- FHLB. The Federal Home Loan Bank provides credit and liquidity in the housing market. FHLB issues discount notes and bonds.
- FHLMC. Like FHLB, the Federal Home Loan Mortgage Corporation provides credit and liquidity in the housing market. FHLMC, also called “Freddie Mac” issues discount notes, bonds and mortgage pass-through securities.
- FNMA. Like FHLB and Freddie Mac, the Federal National Mortgage Association was established to provide credit and liquidity in the housing market. FNMA, also known as “Fannie Mae,” issues discount notes, bonds and mortgage pass-through securities.

Certain GSE obligations **are guaranteed** by the full faith and credit of the US government. An example is:

- GNMA. The Government National Mortgage Association, known as “Ginnie Mae,” issues mortgage pass-through securities.

Callable - A callable security gives the issuer the option to call it from the investor prior to its maturity. The main cause of a call is a decline in interest rates. If interest rates decline since an issuer issues securities, it will likely call its current securities and reissue them at a lower rate of interest. Callable securities have reinvestment risk as the investor may receive its principal back when interest rates are lower than when the investment was initially made.

Certificate of Deposit (CD) - A time deposit with a specific maturity evidenced by a certificate. Large denomination CDs may be marketable. CDs may be negotiable or non-negotiable.

Collateral - Securities or cash pledged by a borrower to secure repayment of a loan or repurchase agreement. Also, securities pledged by a financial institution to secure deposits of public monies.

Commercial paper - Short-term unsecured debt of corporations.

Coupon - The rate of return at which interest is paid on a bond.

Current yield - The annual income from an investment divided by the current market value. Since the mathematical calculation relies on the current market value rather than the investor's cost, current yield is unrelated to the actual return the investor will earn if the security is held to maturity.

Dealer - A dealer acts as a principal in security transactions, selling securities from and buying securities for his own position

Delivery vs. payment (DVP) - A securities industry procedure whereby payment for a security must be made at the time the security is delivered to the purchaser's agent.

Demand Deposit – Sometimes referred to as a sight or on call deposit, can be withdrawn at any time (on demand) without notice or penalty; e.g., deposits into checking or savings accounts.

Derivative - Any security that has principal and/or interest payments which are subject to uncertainty (but not for reasons of default or credit risk) as to timing and/or amount, or any security which represents a component of another security which has been separated from

other components ("Stripped" coupons and principal). A derivative is also defined as a financial instrument the value of which is totally or partially derived from the value of another instrument, interest rate or index.

Discount - The difference between the par value of a bond and the cost of the bond, when the cost is below par. Some short-term securities, such as T-bills and banker's acceptances, are known as **discount securities**. They sell at a discount from par, and return the par value to the investor at maturity without additional interest. Other securities, which have fixed coupons, trade at a discount when the coupon rate is lower than the current market rate for securities of that maturity and/or quality.

Diversification - Dividing investment funds among a variety of investments to avoid excessive exposure to any one source of risk.

Duration - The weighted average time to maturity of a bond where the weights are the present values of the future cash flows. Duration measures the price sensitivity of a bond to changes in interest rates. (See modified duration).

Federal funds rate - The rate of interest charged by banks for short-term loans to other banks. The Federal Reserve Bank through open-market operations establishes it.

Financial Industry Regulatory Authority (FINRA) - A self-regulatory organization for brokerage firms doing business in the United States. FINRA operates under the supervision of the SEC. The organization's objectives are to protect investors and ensure market integrity.

Investment's Term or Remaining Maturity – measured from the settlement date to final maturity. The Government Code prohibits the purchase of a security with a forward settlement date exceeding 45 days from the time of investment.

Liquidity - refers to the requirement that some portion of cash assets be invested in securities readily convertible into cash without loss of capital.

Make whole call - A type of call provision on a bond allowing the issuer to pay off remaining debt early. The issuer has to make a lump sum payment derived from a formula based on the net present value (NPV) of future coupon payments that will not be paid because of the call. Investors will be compensated, or "made whole."

Market value - The price at which a security can be traded.

Mark to market - The process of posting current market values for securities in a portfolio.

Maturity - The final date upon which the principal of a security becomes due and payable.

Money market - The market in which short term debt instruments (T-Bills, discount notes, commercial paper and banker's acceptances) are issued and traded.

Nationally Recognized Statistical Rating Organization (NSRSO) - Is a credit rating agency (CRA) that issues credit ratings that the U.S. Securities and Exchange Commission (SEC) permits other financial firms to use for certain regulatory purposes. The largest NSROs are Moody's, Standard and Poor's and Fitch.

Portfolio Re-Optimization - Refers to the process wherein investment broker(s) re-evaluate a given dedicated investment portfolio using sophisticated computer programs based on the updated program or project estimated cash flows. This is usually done to increase or protect the portfolio's overall rate of return as a result of changing liability amounts or dates, changing market or credit risk condition, or a change in investment policy restrictions, etc.

Portfolio Strategy – Determining investment practices to best achieve the investors' primary goals. Strategies may be either passive or active. Passive strategies include: buy and hold, which includes the laddering of maturities; and bullet structure, which is designed to invest to a particular date or portfolio horizon; and benchmarking, which is done to mirror a particular

segment of the market. Active strategies employ additional risk to take advantage of conditions in the fixed income markets that change as economic and financial conditions change.

Premium - The difference between the par value of a bond and the cost of the bond, when the cost is above par.

Primary Dealer - a firm that buys government securities directly from a government, with the intention of reselling them to others, thus acting as a market maker of government securities. The government may regulate the behavior and numbers of its primary dealers and impose conditions of entry.

Repurchase agreement (RP, Repo) - Short term purchases of securities with a simultaneous agreement to sell the securities back at a higher price. From the seller's point of view, the same transaction is a **reverse repurchase agreement**.

Risk - refers to the degree of probability of incurring a monetary loss as a result of investing in a particular security. Three general kinds of investment risks are:

- *Credit Risk* - risk that an issuer of a security cannot meet its obligations.
- *Market Risk* - risk from fluctuations in the market prices for individual securities over a period of time.
- *Liquidity Risk* - risk of an inability to sell a security at its fair market value.

Safety - refers to the varying degrees and types of risks associated with different types of investment securities and individual issues. Safety is a matter of degree, not an absolute.

Safekeeping - A service to bank customers whereby securities are held by the bank (as custodian) in the customer's name.

Total rate of return - A measure of a portfolio's performance over time. It is the internal rate of return, which equates the beginning value of the portfolio with the ending value; it includes interest earnings, realized and unrealized gains, and losses in the portfolio.

U.S. Treasury obligations - Securities issued by the U.S. Treasury and backed by the full faith and credit of the United States. Treasuries are considered to have no credit risk, and are the benchmark for interest rates on all other securities in the US and overseas. The Treasury issues both discounted securities and fixed coupon notes and bonds.

Treasury bills - All securities issued with initial maturities of one year or less are issued as discounted instruments, and are called Treasury bills. The Treasury currently issues three- and six-month T-bills at regular weekly auctions. It also issues "cash management" bills as needed to smooth out cash flows.

Treasury notes - All securities issued with initial maturities of two to ten years are called Treasury notes, and pay interest semi-annually.

Treasury bonds - All securities issued with initial maturities greater than ten years are called Treasury bonds. Like Treasury notes, they pay interest semi-annually.

Uniform Net Capital Rule - An SEC rule that requires broker-dealers to maintain sufficient liquidity to protect securities customers, counterparties, and creditors. Broker-dealers must maintain net capital (net worth adjusted by certain deductions for illiquid assets and reserves against possible market losses on securities positions) such that the liabilities incurred by the broker-dealer (aggregate indebtedness) do not exceed certain specified levels.

Volatility - The rate at which security prices change with changes in general economic conditions or the general level of interest rates.

Yield to Maturity - The annualized internal rate of return on an investment which equates the expected cash flows from the investment to its cost.

ATTACHMENT 2

INVESTMENT FUND OBJECTIVES

Fund Type	Primary Investment Objective	Maximum Term of Investment ¹
Bond Financed Project Funds: ²		
Construction Fund (Geo)	C	1 year
Construction Revolving Acct (LEC)	A	90 days
Debt Service Fund	C	1 year
Debt Service Reserve	B, D	15 years
Reserve Fund	B, C, D	5 years
Rebate Fund	C	5 years
O&M Reserve (LEC)	A, B, D	5 years
Revenue Fund	A, B, C	1 year
Additional Operating Funds:		
Operating Account	A, C	5 years
General Operating Reserve	A, B, C	5 years
SCPA Balancing Account	A, B	5 years
Capital Development Account (Hydro)	A, C	5 years
Decommissioning Account (Geo)	C, D	10 years

Notes:

- A. Provide liquidity
- B. Provide reserves against uncertain liabilities
- C. Match prescribed cash flow
- D. Maximize long-term return on investment

¹ Investments shall mature not later than such times as shall be necessary to provide monies when reasonably expected to be needed for payments to be made from such fund.

² Proceeds of debt issuance and other funds held under a bond indenture shall be invested in accordance with the Agency's general investment philosophy as set forth in this policy; however, such moneys are to be invested in accordance with permitted investment provisions of their specific bond indentures.

ATTACHMENT 3
LIST OF PERMITTED INVESTMENTS

The California Government Code (Sections 53600 et seq.) governs investment of Agency funds. The following investments are authorized:

1. U.S. Treasury Obligations (e.g. Treasury notes, bonds and bills) Securities that are backed by the full faith and credit of the United States

- a) There is no limit on purchase of these securities.
- b) All purchased securities must have an explicit or a de facto backing of the full faith and credit of the U.S. Government.
- c) Securities will not exceed 15 years maturity in accordance with Attachment 2 of this policy

2. U.S. Federal Agency Obligations – Obligations issued by the Federal Government agencies (e.g. Federal National Mortgage Association).

- a) There is no limit on purchase of these securities; however, the following must hold true for Callable and Multi-step-up securities:
 - i) The potential call dates are known at the time of purchase
 - ii) The interest rates at which they “step-up” are known at the time of purchase
 - iii) The entire face value of the security is redeemed at the call date
- b) Securities will not exceed 15 years maturity in accordance with Attachment 2 of this policy.

3. Municipal Bonds including California State, California Local Government Agencies, and other United States State Bonds

- a) Having at time of investment a minimum Category A (A-/Aa3) rating as provided by a nationally recognized rating service.
- b) May not exceed 30 percent of the par value of the portfolio.
- c) Investments include:
 - i) Registered state warrants or treasury notes or bonds of the State of California and bonds, notes, warrants, or other evidences of indebtedness of any local agency within California, including bonds payable solely out of the revenues from a revenue producing property owned, controlled, or operated by the state or local agency or by a department, board, agency, or authority of the state or local agency.
 - ii) Registered treasury notes or bond of any of the 49 United States in addition to the State of California, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by a state or by a department, board, agency or authority of any of the other 49 United States, in addition to the State of California.

- d) Securities will not exceed 10 years maturity in accordance with Attachment 2 of this policy.

4. Non-Negotiable Certificates of Deposit (CD) - A debt instrument issued by a bank for a specified period of time at a specified rate of interest. Purchase of CD's are limited to:

- a) May not exceed 20 percent of the par value of the portfolio.
- b) No more than 5 percent of the par value of the portfolio in collateralized CDs in any institution.
- c) Purchase collateralized deposits only from federally insured banks that are rated by a nationally recognized rating service.
- d) For non-rated banks, deposit should be limited to amounts federally insured (FDIC).

5. Bankers Acceptances' – Bills of exchange or time drafts drawn on and accepted by commercial banks. Purchase of bankers' acceptances are limited to:

- a) No more than 40 percent of the par value of the portfolio.
- b) Not to exceed 180 days maturity.
- c) No more than 5 percent of the par value of the portfolio with any one institution.
- d) Having at time of investment a minimum long-term Category A (A-/Aa3) rating or short-term A-1 rating or better as provided by a nationally recognized rating service.

6. Commercial Paper - Short-term unsecured obligations issued by banks, corporations, and other borrowers. Purchases of commercial paper are limited to:

- a) Having highest letter or numerical rating as provided for by a nationally recognized rating service.
- b) No more than 25 percent of the par value of the portfolio.
- c) Not to exceed 270 days maturity.

7. Local Agency Investment Fund (LAIF) – A State of California managed investment pool that may be used up to the maximum permitted by California State Law.

8. California Asset Management Program (CAMP) – A California Joint Powers Authority ("JPA") managed investment pool that may be used up to the maximum permitted by California State Law.

9. Repurchase Agreements (REPO) – A contractual agreement between a seller and a buyer, usually of U.S. government securities, whereby the seller agrees to repurchase the securities at an agreed upon price and, usually, at a stated time. The Agency may invest in repurchase agreements with banks and dealers of primary dealer status recognized by the Federal Reserve with which NCPA has entered into a master repurchase contract which specifies terms and conditions of repurchase agreements. Purchases of REPO's must:

- a) Not to exceed 1 year.
- b) Market value of securities that underlay a repurchase agreement shall be valued at 102 percent or greater of the funds borrowed against those securities.

10. Mutual Funds and Money Market Mutual Funds – consisting of investment vehicles permitted under Sections 53601 and 53635 of the California Government Code. To be eligible for Agency investments, mutual funds shall have the following:

- a) The highest rating provided by not less than two of the three largest NRSROs or;
- b) The fund must retain an investment advisor registered with the Securities and Exchange Commission, has assets under management in excess of \$500 million, and has at least five years' experience investing in instruments authorized by Sections 53601 and 53636.

To be eligible for Agency investments, money market mutual funds shall have the following:

- a) The highest rating provided by not less than two of the three largest NRSROs or;
- b) The fund must retain an investment advisor registered with the Securities and Exchange Commission and who has not less than five years' experience investing in money market instruments with assets under management in excess of \$500 million.

A thorough analysis of the portfolio is required prior to investing, and on a continual basis. Analysis shall include creditworthiness, size, safety, ease of investment liquidation, frequency of earnings distributions, frequency of account statements, and investment portfolio strategy. Securities owned in mutual funds and investment pools will not count towards maximum percentages of other categories.

- a) Maximum Holdings = 20% of portfolio dollars
- b) Maximum per Fund = 5% of portfolio dollars for mutual funds and 20% of portfolio dollars for money market mutual funds (total of all money market mutual funds not to exceed 20% of portfolio)

11. Negotiable Certificates of Deposit (NCD) issued by nationally or state-chartered banks and state or federal savings institutions. Purchases of negotiable certificates of deposit:

- a) May not exceed 30 percent of the par value of the portfolio.
- b) No more than 5 percent of the par value of the portfolio in any one institution.
- c) If below FDIC limit, no credit rating is required.
- d) If above FDIC limit, a minimum Category A (A-/Aa3) rating as provided by a nationally recognized rating service is required.

12. Medium-Term Corporate Notes – Issued by corporation organized and operating within the United States or by depository institutions licensed by the United States or any state and operating with the United States.

- a) Not to exceed 5 years maturity.
- b) Having at time of investment a minimum Category A (A-/Aa3) rating as provided by a nationally recognized rating service.
- c) No more than 30 percent of the par value of the portfolio.
- d) No more than 5 percent of the par value may be invested in securities of any single issuer, other than the U.S. Government, its agencies and instrumentality.

- e) If securities owned by the Agency are downgraded by a nationally recognized rating service to a level below A- or Aa3, it shall be the Agency's policy to review the credit situation and determine whether to sell or retain such securities in the portfolio. The Agency shall be required to include information about the downgraded investment in the monthly Treasurer's Report until such time that the investment matures or the Agency sells it.

13. Supranational Organizations Securities – Supranational organizations refer to the International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC) and Inter-American Development Bank (IADB).

- a) Securities will not exceed 5 years maturity.
- b) No more than 15 percent of the par value of the portfolio.
- c) No more than 5 percent of the par value with any one institution.
- d) Securities eligible for investment shall have a minimum rating of AA or Aa2 from a nationally recognized rating service.
- e) Limited to United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by IBRD, IFC, and IADB.

Attachment 1 of this Investment Policy provides a more detailed description of the investment vehicles and security and liquidity features. Most of the Agency's short-term investments will be in securities which pay principal upon maturity, while long-term investments may be in securities that periodically repay principal, as well as interest. Most of the Agency's investments will be at a fixed rate. However, some of the investments may be at a variable rate, so long as that rate changes on specified dates in predetermined increments.

ATTACHMENT 4

TABLE OF PERMITTED INVESTMENTS

Concentration limits and credit criteria apply at time of purchase. The following represent the maximum maturities for and maximum percentages or dollar amounts that may be invested in specific investment types:

Type of Investment	Maximum % of Portfolio	Minimum Rating Requirement	Maximum Maturity	Other Restrictions	Gov't Code Sections
US Treasury Obligations	100%	None	5 Years ²	None	53601(b)
U.S. Agency Obligations	100%	None	5 Years ²	Callable and Multi-Step-Up ³	53601(f)
Local Agency Investment Fund (LAIF)	Up to max permitted by Code	None	N/A	None	16429.1
Medium-term Corporate Notes	30%	By a NRSRO; Category A or its equivalent or better*	5 years	No more than 5% per issuer	53601(k)
California Asset Management Program (CAMP)	100%	None	N/A	Must retain SEC registered advisor ⁴	53601(p)
Non-Negotiable Certificates of Deposit	20%	None	5 years	No more than 5% per issuer	53630 et seq.
Negotiable Certificates of Deposit	30%	No rating for amount < FDIC insured level; by a NRSRO; Category A for amounts > than FDIC insured level	5 years	No more than 5% per issuer	53601(i)
Bankers' Acceptances	40%	By a NRSRO; Long-term of Category A or short-term of A-1 or better	180 days	No more than 5% per issuer	53601(g)
Commercial Paper	25%	By a NRSRO; Highest letter and number rating	270 days	Assets >\$500MM No more than 5% per issuer	53601(h)(2)(c)
Mutual Funds and Money Market Mutual Funds	20%	By a NRSRO; Highest rating by minimum of two or retain SEC registered advisor ⁵	5 years	No more than 5% per mutual fund; 20% per money market mutual fund ⁴	53601(l) and 53601.6(b)
Repurchase Agreements	100%	None	1 year	Collateral of at least 102% of market value required	53601(j)
Municipal Bonds ¹	30%	By a NRSRO; Category A or its equivalent or better	5 Years ²	No more than 5% per issuer	53601(a)(c)(d)(e)
Supranational Obligations	15%	"AA" rating category or its equivalent or better	5 Years	No more than 5% per issuer	53601(q)

- Includes any rating modifiers such as "+" / "-" or numbers to include equivalent ratings from NRSRO

- ¹ An investment in a municipal bond may include a bond or other debt security of the Agency's local agency members; provided, absent an opinion of nationally recognized bond counsel that the exclusion from gross income of interest on the municipal bond will not be adversely affected for federal income tax purposes, the following criteria are met:
 - a. The municipal bond has not been issued by or on behalf of Agency; and
 - b. Any local agency members who are either the issuer of the municipal bond or are beneficiaries (e.g., a conduit borrower) of the proceeds of the municipal bond do not have greater than forty-nine percent voting power with respect to any action of Agency.
- ² The Maximum Maturity for U.S. Treasury and Federal Agency obligations and Municipal Bonds is five years for all funds with the exception of the following:
 - a. Debt Service Reserve funds in accordance with respective bond covenants restrictions and Attachment 2 of this policy.
 - b. The Geo Decommissioning Fund in accordance with Attachment 2 of this policy.
- ³ For U.S. Agency Obligations that are Callable or Multi-step-up, it is required that:
 - a. The potential call dates are known at the time of purchase.
 - b. The interest rates at which they "step-up" are known at the time of purchase.
 - c. The entire face value of the security is redeemed at the call date.
- ⁴ The investment advisor must be registered with the SEC (or is exempt from registration), have assets under management in excess of \$500 million, and have at least five years' experience investing in instruments authorized by California Government Code Section 53601 subdivisions (a) to (o).
- ⁵ Mutual Funds and Money Market Mutual Funds
 - a. For the mutual fund, if an investment advisor is required, the advisor must be registered with the SEC, have assets under management in excess of \$500 million, and have at least five years' experience investing in instruments authorized by California Government Code Sections 53601 and 53636.
 - b. For the money market mutual fund, if an investment advisor is required, the advisor must be registered with the SEC. and have not less than five years' experience investing in money market instruments with assets under management in excess of \$500 million.

ATTACHMENT 5
BROKER/DEALER QUESTIONNAIRE



NORTHERN CALIFORNIA POWER AGENCY
BROKER/DEALER QUESTIONNAIRE

Firm Name: _____

CRD Number: _____

Office servicing account: _____

Address: _____

Primary Representative:

Please attach bio of primary and secondary representatives covering this account.

Telephone: _____

Fax: _____

E-Mail: _____

CRD Number: _____

Secondary Representative or sales assistant: _____

Telephone: _____

E-Mail: _____

CRD Number: _____

Branch Manager: _____

Telephone: _____

Is your firm designated as a primary dealer by the Federal Reserve?* _____

If not, does your firm maintain an inventory? (dealer status)* _____

Is the firm registered with the State of _____ State Securities Board?* _____

Is the firm and all its representatives registered with the NASD?* _____

In what market sectors does the account representative specialize? _____

List three comparable public clients currently working with this representative.

Entity name, contact and phone number.

***If the answer to any of these questions is no, please explain each separately.**

Attach complete delivery instructions.
All transactions will be completed delivery versus payment.

ATTACHMENT 5
BROKER/DEALER QUESTIONNAIRE



BROKER/DEALER QUESTIONNAIRE

Page 2 to be completed by non-primary broker/dealers only.

Firm Name: _____ CRD #: _____

Years in business at this location: _____ Total years: _____

What are the market sectors in which you and your firm are involved? Please feel free to provide additional information regarding specialization in any of the following market sectors.

	<u>Firm Involvement</u>	<u>Broker Involvement</u>
US Treasuries	_____	_____
US Agencies	_____	_____
Repo MBS	_____	_____
CP BA	_____	_____
Corporate CD	_____	_____
Other	_____	_____

Has this firm, or the representatives assigned to this account, been subject to a regulatory agency, state or federal investigation for alleged improper, disreputable, unfair or fraudulent activities related to the sale of securities or money market instruments that resulted in a suspension or censure? Is there outstanding litigation that would materially affect the firm's financial stability?

Do you provide any fixed income research and economic commentary? _____
Please attach sample.

What portfolio information to you require from your clients? _____

Please provide the firm's most recent audited financial statement.
(The City will require an annual financial statement be provided.)

Describe the precautions taken by your firm to protect the interests of the public when dealing with a public entity.

Attached is our Investment Policy. The representatives assigned to the account must acknowledge that they have received, read and understood the Policy, dated _____ by signing below.

_____ Signature	_____ Name and Title
--------------------	-------------------------

_____ Signature	_____ Name and Title
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ATTACHMENT 6
TABLE OF BOND INDENTURE PERMITTED INVESTMENTS

Project	Geo/Hydro ²			Cap Facilities/LEC ³		
Securities ¹	Debt Service Acct.	Debt Service Reserve Acct.	All Other	Debt Service Acct.	Debt Service Reserve Acct.	All Other
Direct obligations of the United States of America.	x	x	x	x	x	x
Bonds issued or guaranteed by federal Agencies, which are backed by the full faith and credit of the United States of America.	x	x	x	x	x	x
Bonds issued or guaranteed by federal Agencies, which are not backed by the full faith and credit of the United States of America.	x	x	x	x	x	x
New Housing Authority bonds or notes of public agencies or municipalities secured by a pledge of annual contributions to be paid by the United States or agency thereof.	x	x	x			x
Direct and general obligations of the State of California or political subdivision rated A or higher.	x		x			
General obligation of any state rated A2 or higher.						x
Time deposits, FDIC insured or collateralized.			x			x
Repurchase agreements, insured or collateralized.			x			x
Money Market Funds rated AAAM G or AAAM or better.						x
Commercial Paper rated P-1 or A1+.						x
UD dollar denominated deposit accounts, federal funds or bankers' acceptances with ratings of A-1, A-1+ or P-1.						x
Prefunded municipal obligations rated highest rating category by S&P or Moody's, based on an irrevocable escrow.						x
Investment Agreements & GICS, supported by opinion of counsel.				x	x	x
California LAIF.						x
Shares in a California common law trust which invests exclusively in investment permitted under CA Code section 56635.						x
Any other form of investment.						x

¹ Investment types are detailed in each project bond Indenture of Trust. Generally, investment securities include those listed above, if and to the extent the same are legal for investment of Agency funds. The securities, as listed above, are summarized and may have additional limitations as to specific issuers, ratings, term of investment, or other requirements.

² The Geothermal Project bond indenture dated November 1, 1983 and the Hydroelectric Project bond indenture dated March 1, 1985 have the same definition for investment securities.

³ The Capital Facilities Project bond indenture dated December 1, 2019, the Lodi Energy Center Issues One and Two, dated June 1, 2010 have the same definition for investment securities.

ATTACHMENT 7
CREDIT RATINGS COMPARISON

Description	Moody's		Standard & Poors		Fitch	
	Long-term	Short-term	Long-term	Short-term	Long-term	Short-term
Prime:						
Extremely Strong	Aaa	P-1	AAA	A-1+	AAA	F1+
High Grade:						
Very Strong	Aa1		AA+		AA+	
	Aa2		AA		AA	
	Aa3		AA-		AA-	
Upper Medium Grade:		P-2		A-1		F1
Strong	A1		A+		A+	
	A2		A		A	
	A3		A-	A-2	A-	F2
Lower Medium Grade:						
Adequate	Baa1	P-3	BBB+	A-3	BBB+	F3
	Baa2		BBB		BBB	
	Baa3		BBB-		BBB-	
Non-investment Grade speculative:						
Vulnerable	Ba1	Not Prime	BB+	B	BB+	B
	Ba2		BB		BB	
	Ba2		BB-		BB-	

Credit ratings are opinions about credit risk published by a rating agency. They express opinions about the ability and willingness of an issuer, such as a corporation, state or city government, to meet its financial obligations in accordance with the terms of those obligations. Credit ratings are also opinions about the credit quality of an issue, such as a bond or other debt obligation, and the relative likelihood that it may default.

The Agency shall not invest in any security rated less than rating category A or its equivalent.



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: Approval of Amendment to Exhibit A of the Third Phase Agreement for Purchase Agreements with Geysers Power Company, LLC

AGENDA CATEGORY: Consent

FROM:	Tony Zimmer 	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Power Management	<i>If other, please describe:</i>
Department:	Power Management	

IMPACTED MEMBERS:

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 type="checkbox"/>
San Francisco Bay Area Rapid Transit	<input type="checkbox"/>	City of Palo Alto	<input checked="" type="checkbox"/>	Plumas-Sierra REC	<input type="checkbox"/>
City of Biggs	<input checked="" type="checkbox"/>	City of Redding	<input type="checkbox"/>	Port of Oakland	<input checked="" type="checkbox"/>
City of Gridley	<input checked="" 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 checked="" type="checkbox"/>	Other	<input type="checkbox"/>

If other, please specify

RECOMMENDATION:

Adopt Resolution 23-52 to approve the amended Exhibit A of the Third Phase Agreement for Purchase Agreements with Geysers Power Company, LLC, to confirm the Final Project Participation Percentage for each Participant, as documented in Table 3 of the amended Exhibit A, including any non-substantive modifications to the amended Exhibit A of the Third Phase Agreement for Purchase Agreements with Geysers Power Company, LLC as recommended and approved by the NCPA General Counsel.

BACKGROUND:

Pursuant to Exhibit A to the Third Phase Agreement for Purchase Agreements with Geysers Power Company, LLC ("Exhibit A"), if any Members exercise their right to accept a transfer of a share of the Project Participation Percentage of the Project, the Parties shall add to Exhibit A a Table 3 to document the Final Project Participation Percentage shares of the Project. Exhibit A further states that NCPA shall prepare Table 3 after the Transfer Completion Deadline to document the Final Project Participation Percentages of each Participant, and such Table 3 will be added to Exhibit A as an amendment to the Third Phase Agreement for Purchase Agreements with Geysers Power Company, LLC once adopted by the Commission. NCPA staff have developed an amended Exhibit A that includes Table 3 to document the Final Project Participation Percentages of each Participant in the Project.

A copy of the amended Exhibit A has been attached to this staff report for your reference.

FISCAL IMPACT:

NCPA's costs for development of the amended Exhibit A will be allocated to Members in accordance with approved cost allocation methodologies as described in the NCPA annual budget.

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.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments: (2)

- Resolution 23-52
- Amended Exhibit A

RESOLUTION 23-52

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVAL OF AMENDMENT TO EXHIBIT A OF THE THIRD PHASE AGREEMENT FOR PURCHASE AGREEMENTS WITH GEYSERS POWER COMPANY, LLC

(reference Staff Report #170:23)

WHEREAS, pursuant to Exhibit A to the Third Phase Agreement for Purchase Agreements with Geysers Power Company, LLC ("Exhibit A"), if any Members exercise their right to accept a transfer of a share of the Project Participation Percentage of the Project, the Parties shall add to Exhibit A a Table 3 to document the Final Project Participation Percentage shares of the Project; and

WHEREAS, Exhibit A further states that Northern California Power Agency ("NCPA") shall prepare Table 3 after the Transfer Completion Deadline to document the Final Project Participation Percentages of each Participant, and such Table 3 will be added to Exhibit A as an amendment to the Third Phase Agreement for Purchase Agreements with Geysers Power Company, LLC once adopted by the Commission; and

WHEREAS, NCPA staff have developed an amended Exhibit A that includes Table 3 to document the Final Project Participation Percentages of each Participant in the Project; and

WHEREAS, NCPA's costs for development of the amended Exhibit A will be allocated to Members in accordance with approved cost allocation methodologies as described in the NCPA annual budget; 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 Resolution 23-52 approving the amended Exhibit A of the Third Phase Agreement for Purchase Agreements with Geysers Power Company, LLC, to confirm the Final Project Participation Percentage for each Participant, as documented in Table 3 of the amended Exhibit A, including any non-substantive modifications to the amended Exhibit A of the Third Phase Agreement for Purchase Agreements with Geysers Power Company, LLC as recommended and approved by the NCPA General Counsel.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023, 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST: _____
ASSISTANT SECRETARY

EXHIBIT A
PROJECT PARTICIPATION PERCENTAGES

On the Effective Date of the Agreement the initial Participant (“Initial Participant”) who is signatory to this Agreement, and its respective initial Project Participation Percentage share of the Project is set forth in Table 1 of this Exhibit A (“Initial Project Participation Percentage”). The process set forth below is not subject to the requirements of Section 9 of this Agreement, except as set forth below.

Table 1			
Initial Project Participation Percentages			
Member	Project Participation Percentages	Project Participation MW	Project Participation MW
		(2025 - 2026)	(2027 - 2037)
City of Santa Clara	100.0%	50.00	100.00
Total:	100.0%	50.00	100.00

Thereafter, a Member who is not a Participant may exercise a right to accept a transfer of a portion of the Initial Project Participation Percentage of the Initial Participant in an amount no greater than the amount set forth in Table 2 of this Exhibit A, no later than April 30, 2023 (the “Transfer Completion Deadline”), unless the Initial Participant otherwise agrees in writing to extend the Transfer Completion Deadline. The right to transfer described in this Exhibit A shall be exercised in writing (1) addressed to NCPA and the Initial Participant, and (2) by a Member’s execution of this Agreement by the Transfer Completion Deadline. For purposes of this Exhibit A only, that Member who becomes a Participant shall be referred to as a “Table 2 Participant.” Notwithstanding the foregoing, the Transfer Completion Deadline applies only to the intended assumption of the Project Participation Percentage described in Table 2 of this Exhibit A, and shall not limit or reduce a Participant’s rights set forth in Section 9 of this Agreement. Upon written notice and execution of this Agreement, the Table 2 Participant will assume all rights and obligations set forth in this Agreement for the portion of the Project Participation Percentage share of the Project as set forth in Table 2 of this Exhibit A. If any Members

exercise their right to accept a transfer of a share of the Project Participation Percentage, the Parties shall add to this Exhibit A by preparing a Table 3 to reflect the Final Project Participation Percentage shares of the Project. NCPA shall prepare Table 3 after the Transfer Completion Deadline to reflect the Final Project Participation Percentages of each Participant, and such Table 3 will be added to this Exhibit A as an amendment to this Agreement once adopted by the Commission. In the event an intended Table 2 Participant does not become a Table 2 Participant by the Transfer Completion Deadline, the Initial Participant shall retain the Project Participation Percentage of the intended Table 2 Participant as described in Table 2 of this Exhibit A, and such will be reflected in Table 3.

Table 2
Draft Final Project Participation Percentages

Member	Project		
	Project	Participation	Participation
	Participation	MW	MW
	Percentages	(2025 - 2026)	(2027 - 2037)
City of Alameda	5.0%	2.50	5.00
City of Biggs	0.4%	0.20	0.40
City of Gridley	0.6%	0.30	0.60
City of Lodi	10.0%	5.00	10.00
City of Lompoc	1.7%	0.85	1.70
City of Palo Alto	10.0%	5.00	10.00
Port of Oakland	2.3%	1.15	2.30
City of Santa Clara	70.0%	35.00	70.00
Total:	100.0%	50.00	100.00

The Final Project Participation Percentages of each Participant are shown in Table 3 below:

Table 3
Final Project Participation Percentages

Member	Project		
	Project	Participation	Participation
	Participation	MW	MW
	Percentages	(2025 - 2026)	(2027 - 2037)
City of Alameda	5.0%	2.50	5.00
City of Biggs	0.4%	0.20	0.40
City of Gridley	0.6%	0.30	0.60
City of Lodi	10.0%	5.00	10.00
City of Lompoc	1.7%	0.85	1.70
City of Palo Alto	10.0%	5.00	10.00
Port of Oakland	2.3%	1.15	2.30
City of Santa Clara	70.0%	35.00	70.00
Total:	100.0%	50.00	100.00



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: Plug In America – First Amendment to Three Year Multi-Task Consulting Services Agreement for Electrification Education and Outreach Services; Applicable to the following: Northern California Power Agency (NCPA), NCPA Members, the Southern California Public Power Authority (SCPPA), and SCPPA Members.

AGENDA CATEGORY: Consent

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

IMPACTED MEMBERS:		
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>		

RECOMMENDATION:

Approve Resolution 23-53 authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task Consulting Services Agreement (MTCSA) with Plug In America for Electrification Education and Outreach Services, with any non-substantial changes recommended and approved by the NCPA General Counsel, to extend the term of the Agreement for an additional two year period, for continued use by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

BACKGROUND:

Participants in NCPA's Transportation Electrification Working Group and Demand Management Working Groups requested assistance in contracting for electrification education and outreach services, with a focus on finding virtual and online outreach programs due to the COVID-19 situation. NCPA issued a Request for Proposal (RFP) LR2001 on August 12, 2020, to solicit proposals from qualified consultants providing various electrification education and outreach programs and services. Specifically, the RFP requested services in the areas of: youth education, building electrification, transportation electrification, and additional related-services.

Ten vendors responded to the RFP. Based on the scoring committee's evaluation, eight of the vendors were interviewed and selected to provide electrification education and outreach services. Plug In America was one of the consultants selected based upon its experience and response to the RFP.

NCPA entered into a three-year MTCSA with Plug In America effective December 18, 2020, for an amount not to exceed \$750,000. This agreement has been used by NCPA Members through NCPA's Support Services program, and an NCPA Member has requested that the agreement be extended. This amendment will extend the term of the Agreement for an additional two-year period from the original expiration date of December 17, 2023 to a new date of December 17, 2025.

NCPA has agreements in place for similar services with Acterra, Cool the Earth, and Electric Car Insider.

FISCAL IMPACT:

The total cost of the agreement is unchanged by the amendment and will not exceed \$750,000 for the amended term of the contract. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

SELECTION PROCESS:

Eight vendors were selected as a result of a Request for Proposal (RFP) process in accordance with NCPA's procurement policies and procedures. An RFP was posted on NCPA's website from August 12, 2020, through September 10, 2020. A total of ten responses were received and evaluated based on: 1) the quality and thoroughness of proposal; 2) possession of the knowledge, experience, and skills required 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) respondent's financial stability; 6) ability to

perform the work within the time specified and demonstrated strong project management abilities; and 7) customer references. The responses were evaluated by a review team consisting of staff from the City of Palo Alto Utilities, Silicon Valley Power, and NCPA.

This enabling agreement does not commit NCPA to any expenditure of funds. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

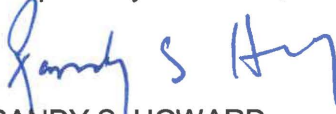
ENVIRONMENTAL ANALYSIS:

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:

The recommendation above was reviewed by the Facilities Committee on May 3, 2023. Due to the lack of a quorum, no formal action was taken, however, the Members present at the meeting voiced their support for the recommendation, and no other meeting attendees had any objections.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments (3):

- Resolution 23-53
- Multi-Task Consulting Services Agreement with Plug In America
- First Amendment to Multi-Task Consulting Services Agreement with Plug In America

RESOLUTION 23-53

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A FIRST AMENDMENT TO THE MULTI-TASK CONSULTING SERVICES AGREEMENT WITH PLUG IN AMERICA

(reference Staff Report #171:23)

WHEREAS, Northern California Power Agency (NCPA) and Plug In America entered into a Multi-Task Consulting Services Agreement effective December 18, 2020, for Plug In America to provide electrification education and outreach services, for use by NCPA, NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, NCPA Members have requested that the Agreement with Plug In America be extended beyond the original three-year term to accommodate anticipated projects; and

WHEREAS, NCPA desires to extend the term of the Agreement for an additional two-year period; 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 Multi-Task Consulting Services Agreement, with any non-substantial changes as approved by the NCPA General Counsel, for continued use by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST:
ASSISTANT SECRETARY



FIRST AMENDMENT TO MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND PLUG IN AMERICA

This First Amendment (“Amendment”) to the Multi-Task Consulting Services Agreement is entered into by and between the Northern California Power Agency (“Agency”) and Plug In America (“Consultant”) (collectively referred to as “the Parties”) as of _____, 2023.

WHEREAS, the Parties entered into a Multi-Task Consulting Services Agreement dated effective December 18, 2020, (the “Agreement”) for Consultant to provide electrification education services including electric vehicle (EV) education, ride and drives, and dealer training and incentive programs; and

WHEREAS, the Agency now desires to amend the Agreement to extend the term of the Agreement for an additional two (2) years from the original expiration date of December 17, 2023, to a new date of December 17, 2025; 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 1.1—Term of Agreement** is amended and restated to read in full as follows:

The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later five (5) years from the date this Agreement was signed by Agency, whichever is shorter.

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: _____

Date: _____

NORTHERN CALIFORNIA POWER AGENCY

PLUG IN AMERICA

RANDY S. HOWARD, General Manager

Authorized signatory

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel



MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND PLUG IN AMERICA

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 Plug In America, a California 501(c)(3) nonprofit corporation with its office located at 6380 Wilshire Blvd Suite 1000, Los Angeles, CA 90048 ("Consultant") (together sometimes referred to as the "Parties") as of Dec. 18, 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 three (3) 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 SEVEN HUNDRED FIFTY THOUSAND** dollars (\$750,000.00) 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

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 affect 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.

- 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; 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 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 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: (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 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:

Joel Levin
Executive Director
1270 S Alfred St., No. 351268
Los Angeles, CA 90035

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 SCCPA 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.
- 10.16 Intellectual Property.** Notwithstanding any other provisions herein, the Parties acknowledge and agree that Contractor's proprietary PlugStar software platform (the "Platform") and its PlugStar certification and training program for vehicle dealers (the "Certification Program") are pre-existing intellectual property of Contractor and are not Services Provided, Invention, or Work Product hereunder, regardless of any references in the Consulting Services Agreement. Agency acknowledges that Contractor is the sole owner of all intellectual property rights

in the PlugStar Platform, and the PlugStar Certification Program. Nothing herein shall be deemed to grant Agency any ownership rights in the Platform, or the Certification Program.

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


NORTHERN CALIFORNIA POWER AGENCY

PLUG IN AMERICA

Date 12/18/20

Date December 14, 2020


RANDY S. HOWARD
GENERAL MANAGER


JOEL LEVIN
EXECUTIVE DIRECTOR

Attest:


Assistant Secretary of the Commission

Approved as to Form:


Jane E. Luckhardt, General Counsel

EXHIBIT A
SCOPE OF SERVICES

A. EV Education

- **Workshops and Online Classes** for large and small groups with innovative and interactive ways to accelerate the adoption of EVs by low to moderate income customers with a priority on financials more than environmental motivations. Workshop length and content to be adjusted to the audience. Workshops to include, but are not limited to, information on used EVs, leasing vs. purchasing, available incentives, different models, and lifetime price analysis of an EV vs. a fossil-fuel vehicle.
 - EV 101 educational classes for residents
 - EV 101 educational classes for commuters
- **Virtual and/or In-person Ride and Drives** for large and small groups with innovative and interactive ways to promote and educate low to moderate income customers about EVs, with a priority on financials more than environmental motivations. Ride and Drive length and content to be adjusted to the audience. Ride and drives to include, but are not limited to, information on used EVs, leasing vs. purchasing, different models, and lifetime price analysis of an EV vs. a fossil fuel vehicle.
 - Ride and Drives for residents
 - Ride and Drives for commuters
- **EV Expo's** that promote the adoption of EVs with a priority on converting fossil fuel vehicle drivers into EV drivers. The length and content of these EV Expo's will be adjusted to the audience. Expo's may include, but are not limited to, displays of EVs, test drives, and EV vendor booths.
 - EV Expo's for residents
 - EV Expo's at workplaces

B. Additional Services

- PlugStar Program, which may include:
- Dealer Incentives
- Sponsorship for national Plug In America events

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all tasks, including hourly fees and expenses, shall not exceed \$750,000.00. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

Ride and Drive Events

Final confirmation of funding is required at least seven weeks before the event in order to ensure dealer participation. Payment due upon completion of each event.

Budget details are below:

IN-PERSON RIDE AND DRIVE EVENT BUDGET

A. ONE EVENT

Line Item Description	Qty.	Cost	Total	Additional Details
Learning Center & Interactive Booth	1	\$3,000.00	\$3,000.00	This includes transport and set up of interactive and experiential EV Learning Center booth.
Campaign events through social and earned media	1	\$500.00	\$500.00	Provide content for mutually agreed channels. Encourage posting content by event participants that complements and amplifies NCPA member agency messaging.
Food Incentive	75	\$10.00	\$750.00	We will work with a food truck or local restaurant to provide a free meal to anyone who takes a test ride or drive in an EV.
Event Staff	6	\$160.00	\$960.00	Day-of event staff who will facilitate and manage the EV learning center and EV test drive/ride process.
Insurance	1	\$90.00	\$90.00	To meet the requirements of the site host
PIA Event Manager Staff Time (Hours)	45	\$60.00	\$2,700.00	Staff event management hours
Operating Costs			\$2,000.00	This covers general PIA operating costs, such as office space, office supplies, and utilities.

TOTAL			\$10,000.00	
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B. TWO-FOUR EVENTS

Line Item Description	Qty.	Cost	Total	Additional Details
Learning Center & Interactive Booth	1	\$3,000.00	\$3,000.00	This includes transport and set up of interactive and experiential EV Learning Center booth.
Campaign events through social and earned media	1	\$500.00	\$500.00	Provide content for mutually agreed channels. Encourage posting content by event participants that complements and amplifies NCPA member agency messaging.
Food Incentive	75	\$10.00	\$750.00	We will work with a food truck or local restaurant to provide a free meal to anyone who takes a test ride or drive in an EV.
Event Staff	6	\$160.00	\$960.00	Day-of event staff who will facilitate and manage the EV learning center and EV test drive/ride process.
Insurance	1	\$90.00	\$90.00	To meet the requirements of the site host
PIA Event Manager Staff Time (Hours)	45	\$60.00	\$2,700.00	Staff event management hours
Operating Costs			\$2,000.00	This covers general PIA operating costs, such as office space, office supplies, and utilities.
<i>Discount</i>		<i>-10%</i>	<i>-\$1,000.00</i>	<i>Volume discount of 10% for 2-4 events</i>
TOTAL			\$9,000.00	

C. FIVE TO SIX EVENTS

Line Item Description	Qty.	Cost	Total	Additional Details
Learning Center & Interactive Booth	1	\$3,000.00	\$3,000.00	This includes transport and set up of interactive and experiential EV Learning Center booth.
Campaign events through social and earned media	1	\$500.00	\$500.00	Provide content for mutually agreed channels. Encourage posting content by event participants that complements and amplifies NCPA member agency messaging

Food Incentive	75	\$10.00	\$750.00	We will work with a food truck or local restaurant to provide a free meal to anyone who takes a test ride or drive in an EV.
Event Staff	6	\$160.00	\$960.00	Day-of event staff who will facilitate and manage the EV learning center and EV test drive/ride process.
Insurance	1	\$90.00	\$90.00	To meet the requirements of the site host
PIA Event Manager Staff Time (Hours)	45	\$60.00	\$2,700.00	Staff event management hours
Operating Costs			\$2,000.00	This covers general PIA operating costs, such as office space, office supplies, and utilities.
Discount		-15%	-\$1,500.00	Volume discount of 15% for 5-6 events
TOTAL			\$8,500.00	

VIRTUAL RIDE AND DRIVE EVENT BUDGET

Line Item Description	Qty.	Cost	Total	Additional Details
Programming Coordination	1	\$1,500.00	\$1,500	Acquisition of speakers, EV driver video creation, Zoom software costs.
Social Media Marketing Campaign	1	\$1,050.00	\$1,050	Inclusion of your logo, website links, and social media in our newsletter, and social media campaign.
Speaking Opportunity During Event	1	\$500.00	\$500	Your company can designate an individual to have an educational speaking role during the event.
PIA Event Manager Staff Time (Hours)	20	\$60.00	\$1,200	Staff event management hours
Operating Costs			\$750	This covers general PIA operating costs, such as office space, office supplies, and utilities.
TOTAL			\$5,000.00	

TWO TO FOUR EVENTS

Programming Coordination	1	\$1,500.00	\$1,500	Acquisition of speakers, EV driver video creation, Zoom software costs.
Social Media Marketing Campaign	1	\$1,050.00	\$1,050	Inclusion of your logo, website links, and social media in our newsletter, and social media campaign.
Speaking Opportunity During Event	1	\$500.00	\$500	Your company can designate an individual to have an educational speaking role during the event.
PIA Event Manager Staff Time (Hours)	20	\$60.00	\$1,200	Staff event management hours
Operating Costs			\$750	This covers general PIA operating costs, such as office space, office supplies, and utilities.
Discount		-10%	-\$500.00	Volume discount of 10% for 2-4 events
TOTAL			\$4,500.00	

FIVE TO SIX EVENTS

Programming Coordination	1	\$1,500.00	\$1,500	Acquisition of speakers, EV driver video creation, Zoom software costs.
Social Media Marketing Campaign	1	\$1,050.00	\$1,050	Inclusion of your logo, website links, and social media in our newsletter, and social media campaign.
Speaking Opportunity During Event	1	\$500.00	\$500	Your company can designate an individual to have an educational speaking role during the event.
PIA Event Manager Staff Time (Hours)	20	\$60.00	\$1,200	Staff event management hours
Operating Costs			\$750	This covers general PIA operating costs, such as office space, office supplies, and utilities.
Discount		-15%	-\$750.00	Volume discount of 10% for 2-4 events
TOTAL			\$4,250.00	

Dealer Training, Engagement and Certification Pricing (12-month performance period)
Pricing below represents options depending on how many dealers a utility would like to sponsor in a program. This program pricing can be funded by one or multiple NCPA member utilities.

Project not to exceed "NTE" amount would depend on the number of utilities and dealers participating.

Items	Cost
Program Management, Reporting and Administration <ul style="list-style-type: none"> - Includes 3rd party sales dataset acquisition (See data collection slide) <ul style="list-style-type: none"> - Evaluating PlugStar vs. non-PlugStar dealer sales in program territory - Includes quarterly progress reporting with calls and additional progress check-ins as necessary - Includes final report 	\$9,500 per year for a program with 3 dealers (minimum) +\$3,166 per year for each additional dealer
Materials, Customization and Printing/Shipping. Materials include: <ul style="list-style-type: none"> - Training manual (with participating NCPA member utility information) - Incentives Quick Reference Guide (with participating NCPA utility information) - Materials will continue to include and expand on information for used EVs Dealer Identification, Selection and Recruitment <ul style="list-style-type: none"> - PlugStar team to recruit the number of dealers as agreed to by NCPA members Dealer Training and Certification <ul style="list-style-type: none"> - Training and PlugStar EV certification and support for program dealers - Provide at least three (3) live EV sales webinar training for dealers - In-dealership training for dealers, as needed (COVID Dependant) PlugStar.com and EV Sales Online Tool <ul style="list-style-type: none"> - PlugStar.com: Update local data for NCPA member utilities that participate in the program (electricity rates, incentives, dealers, events, etc.) - EV Sales Tool: A regional license providing dealers access to our mobile-friendly PlugStar EV dealer tool with easy zip code based lookup of EV incentives, charging and info for the makes and models they sell Continued dealer field support and Dealer and Customer EV Support Program (Call Center) <ul style="list-style-type: none"> - Ongoing field support for dealers - Toll-free phone and email helpline support for PlugStar EV dealers and their customers 	\$28,000 per year for a program with 3 dealers (minimum) +\$9,333 per year for each additional dealer with programs with 12 or less dealers +\$8,500 per year for each dealer after the first 12 dealers in the program

Optional Dealer Incentive

Item	Cost
Dealer Incentive Funds Example (pass-through to dealers) <ul style="list-style-type: none"> - 250 incentives at \$400 per vehicle sold 	\$100,000
Incentive Administration Fees Example <ul style="list-style-type: none"> - 12% processing fee 	\$12,000 (based on the amount above)
Additional Program Management Fees	Additional \$1,864 per year per dealer enrolled in the program

Pricing for services not otherwise listed above 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.



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: Approval of Exhibit C, Revision 25 to Contract 96-SNR-00110 (WAPA O&M Funding Commitment)

AGENDA CATEGORY: Discussion/Action

FROM:	Tony Zimmer <i>TZ</i>	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Power Management	<i>If other, please describe:</i>
Department:	Power Management	

IMPACTED MEMBERS:		
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 checked="" 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 checked="" type="checkbox"/>
City of Gridley <input checked="" type="checkbox"/>	City of Roseville <input type="checkbox"/>	Truckee Donner PUD <input type="checkbox"/>
City of Healdsburg <input checked="" type="checkbox"/>	City of Santa Clara <input type="checkbox"/>	Other <input type="checkbox"/>
<i>If other, please specify</i>		

RECOMMENDATION:

Staff is recommending that the Commission of the Northern California Power Agency adopt and approve Resolution 23-39 authorizing the General Manager or his designee to execute Exhibit C, Revision 25 to Contract 96-SNR-00110, on behalf of NCPA, including any non-substantive modifications to Exhibit C, Revision 25 to Contract 96-SNR-00110 approved by NCPA's General Counsel.

BACKGROUND:

In December 2004, Northern California Power Agency (NCPA) executed the Agreement for the Funding of Operation and Maintenance for Central Valley Project Power Facilities (O&M Agreement) with the Western Area Power Administration (WAPA), Bureau of Reclamation (Reclamation) and other Central Valley Project (CVP) customers (Contract 96-SNR-00110). Under the O&M Agreement, CVP customers provide funds for specific operations, maintenance, and capital projects related to the CVP power plants, or the delivery of CVP energy, that would otherwise not be undertaken due to limited federal appropriations. These activities increase the quantity and enhance the reliability of energy delivered to NCPA under the Base Resource contract. WAPA returns funds to NCPA as a bill credit on its power bills. NCPA staff participate in the review and approval of projects chosen for funding, along with other WAPA customers who participate in the program.

NCPA is a party to the O&M Agreement, on behalf of certain NCPA Members who have assigned their Base Resource percentages to NCPA to administer¹ (Assigning Members). WAPA periodically requests participants to the O&M Agreement to execute revisions to the individual Customer Commitment and Contribution, or Exhibit C, which reflect allocated shares of the total funding obligation approved through the customer approval process.

FISCAL IMPACT:

WAPA will invoice and collect funds according to a monthly schedule. Approximately one (1) month following payment, WAPA will return funds to NCPA through a bill credit on the monthly WAPA power bill. Therefore, the net fiscal impact is approximately zero dollars (\$0.00). Costs associated with this commitment will be allocated to the Assigning Members based on Western Allocation percentages. NCPA's authority to act on behalf of the Assigning Members is provided through the Assignment Administration Agreement (AAA Agreement), which requires an affirmative vote of all Assigning Members.

Execution of Exhibit C, Revision 25 to Contract 96-SNR-00110 would establish a commitment by NCPA, specifically the Assigning Members, to provide funds associated with Federal Fiscal Year 2025 in the amount of \$11,720,811.88. The obligation to provide funds survives termination of the O&M Agreement, but any and all future obligations would be absolved coincident with the termination of the Base Resource contract.

Exhibit C, Revision 25 to Contract 96-SNR-00110 has been attached to this staff report for your reference.

¹ Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Ukiah, and Port of Oakland and Plumas-Sierra Rural Electric Cooperative.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

On April 5, 2023 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments: (2)

- Resolution 23-39
- Exhibit C, Revision 25 to Contract 96-SNR-00110

RESOLUTION 23-39

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING EXHIBIT C, REVISION 25 TO CONTRACT 96-SNR-00110

(reference Staff Report #155:23)

WHEREAS, in December 2004, Northern California Power Agency (NCPA) executed the Agreement for the Funding of Operation and Maintenance for Central Valley Project Power Facilities (O&M Agreement) with the Western Area Power Administration (WAPA), Bureau of Reclamation (Reclamation) and other Central Valley Project (CVP) customers (Contract 96-SNR-00110); and

WHEREAS, under the O&M Agreement, CVP customers provide funds for specific operations, maintenance, and capital projects related to the CVP power plants, or the delivery of CVP energy, that would otherwise not be undertaken due to limited federal appropriations; and

WHEREAS, NCPA is a party to the O&M Agreement, on behalf of certain NCPA Members who have assigned their Base Resource percentages to NCPA to administer¹ (Assigning Members), and WAPA periodically requests participants to the O&M Agreement to execute revisions to the individual Customer Commitment and Contribution, or Exhibit C, which reflect allocated shares of the total funding obligation approved through the customer approval process; and

WHEREAS, execution of Exhibit C, Revision 25 to Contract 96-SNR-00110 would establish a commitment by NCPA, specifically the Assigning Members, to provide funds associated with Federal Fiscal Year 2025 in the amount of \$11,720,811.88, and the obligation to provide funds survives termination of the O&M Agreement, but any and all future obligations would be absolved coincident with the termination of the Base Resource contract; and

WHEREAS, costs associated with this commitment will be allocated to the Assigning Members based on Western Allocation percentages, and NCPA's authority to act on behalf of the Assigning Members is provided through the Assignment Administration Agreement (AAA Agreement), which requires an affirmative vote of all Assigning Members; and

WHEREAS, on April 5, 2023 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to execute Exhibit C, Revision 25 to Contract 96-SNR-00110, on behalf of NCPA, including any non-substantive modifications to Exhibit C, Revision 25 to Contract 96-SNR-00110 approved by NCPA's General Counsel.

¹ Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Ukiah, and Port of Oakland and Plumas-Sierra Rural Electric Cooperative.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023, 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST: _____
ASSISTANT SECRETARY

EXHIBIT C
(Individual Customer Commitment and Contribution)

1. This Exhibit C, Revision 25, to be effective under and as a part of Contract 96-SNR-00110 (Agreement), shall become effective upon execution; and shall remain in effect until either superseded by another Exhibit C or termination of the Contract.
2. The Northern California Power Agency agrees to make a Contribution pursuant to Section 8 of the Agreement for the Fiscal Years (FY) and in the amounts specified in Column 6 of the table in Section 3 below.
3. Please specify your Contribution commitment level in Column 6.

	Column 2	Column 3	Column 4	Column 5	Column 6
FY	Fair-Share Funding Amount	Minimum Funding Amount ¹	Revision 24-1 Contribution Commitment Level Amount	Proposed Revision 25 Contribution Commitment Level Amount	Revision 25 Contribution Commitment Level Amount
2022	\$8,588,447.97	\$1,256,598.18	\$8,588,447.97	n/a	\$8,588,447.97
2023	\$10,931,542.95	1,310,137.14	\$10,931,542.95	n/a	\$10,931,542.95
2024	\$11,918,438.68	\$1,342,016.75	\$11,918,438.68	n/a	\$11,918,438.68
2025	\$11,720,811.88	\$1,508,347.62	n/a	\$11,720,811.88	

4. Fair-Share Funding Level amounts and Contribution commitment amounts, if any, are not shown for FYs prior to FY 2022 in the above table. For that information refer to an earlier revision of Exhibit C.
5. Electronic Signatures: This Exhibit C, Revision 25 may be executed by handwritten signature or digitally signed using Adobe Sign, Adobe E-Signature, or DocuSign. An electronic or digital signature is the same as a handwritten signature and shall be considered valid and acceptable.

The signature below commits the Customer named to make Contributions in the amounts shown in the above table, but not greater than the amount indicated in the latest revision of the Contribution commitment level for a specific FY.

¹ To participate on the Governance Board, a Customer must contribute at least 1/12th of its share of the estimated annual O&M cost for the FY that is four (4) years out from the current FY. This minimum amount is set forth in Column 3 of this Exhibit.

NORTHERN CALIFORNIA POWER AGENCY

Attest

By: _____
Title: _____

By: _____
Name: Randy S. Howard
Title: General Manager
Address: 651 Commerce Drive
Roseville, CA 95678
Date: _____



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: NCPA Geothermal Plant 2, Unit 4 Cooling Tower Temporary Measures Project;
Applicable to the following: NCPA Geothermal Facility

AGENDA CATEGORY: Discussion/Action

FROM:	Michael DeBortoli <i>MD</i>	METHOD OF SELECTION:
	Assistant General Manager	Competitive Pricing Process
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Geothermal	

IMPACTED MEMBERS:

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"/>

If other, please specify

Turlock

RECOMMENDATION:

Approve Resolution 23-50 authorizing the Geothermal Plant 2, Unit 4 Cooling Tower Temporary Measures Project and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project in accordance with NCPA purchasing policies and procedures, without further approval by the Commission, for a total not exceed \$250,000, to be funded through a Geothermal FY2023 budget augmentation.

BACKGROUND:

NCPA hired an independent contractor specializing in cooling towers to conduct an inspection of the Geothermal Plant 2, Unit 4 cooling tower. Their inspection revealed that the cooling tower fans, sweet gas header, guardrail, and stairs are in urgent need of repair. While items such as stairs and guardrails can be mitigated with scaffolding, the fans and header are critical for operation. The inspection revealed deteriorated supports for the header and large splits and holes in the fans.

Out of an abundance of caution and for the safety of all personnel, NCPA shut down the Geothermal Plant 2 on May 8, 2023. While the FY2024 budget included an \$800,000 project to replace the fan motor frames, blades, and hubs, temporary repairs are needed immediately to stabilize these items in order to get the unit back online. Complete repairs will be proposed in a future budget.

FISCAL IMPACT:

The total cost of this project is not to exceed \$250,000. A breakdown of the project scope and associated costs is shown below.

Scope of Work	Cost
Mobilization/Demobilization	\$8,000.00
Repair Sweet Gas Line Supports	\$60,000.00
Remove, Clean, Refurbish/Replace Cooling Tower Fan Blades, Supports, and Equipment	\$140,000.00
Crane and Support	\$17,000.00
Contingency Funds	\$25,000.00
Total Project Cost	\$250,000.00

A FY2023 budget augmentation in the amount of \$250,000 is requested to fund this project. If approved, the additional cost of \$250,000 would require funding from the Geothermal member agencies in proportion to their individual shares in the Plant 2 project shown below.

**Impact Plant 2 Unit 4
Cooling Tower Temporary
Measures Project to
Participants**

Participant	Total Cost
	250,000
Alameda	42,206
Biggs	568
Gridley	840
Healdsburg	9,185
Lodi	25,700
Lompoc	9,203
Plumas Sierra	1,753
Roseville	19,708
Santa Clara	110,975
Ukiah	14,036
TID	15,826
	250,000

NCPA will issue a special invoice for \$250,000 on May 26, 2023 and payable by June 15, 2023. Project Participants can elect to provide a letter of direction using their GOR funds or send funds from their bank account.

SELECTION PROCESS:

NCPA has issued a Request for Proposal and is currently soliciting competitive bids from multiple vendors to perform the work required for this project. Work will be awarded to the vendor providing the best overall value to NCPA.

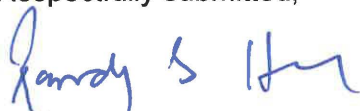
ENVIRONMENTAL ANALYSIS:

These activities are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b), 15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary.

COMMITTEE REVIEW:

On May 18, 2023, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments:

- Resolution 23-50

RESOLUTION 23-50

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING THE NCPA GEOTHERMAL PLANT 2, UNIT 4 COOLING TOWER TEMPORARY
MEASURES PROJECT

(reference Staff Report #168:23)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains on behalf of the project owners a Geothermal facility near Middletown, CA consisting of two power plants with containment areas, 78 steam production and injection wells; and

WHEREAS, a recent inspection of NCPA's Geothermal Plant 2, Unit 4 cooling tower revealed that the cooling tower fans, sweet gas header, guardrail, and stairs are in urgent need of repairs; and

WHEREAS, out of an abundance of caution and for the safety of all personnel, NCPA has shut down the Geothermal Plant 2 until temporary repairs can be made to stabilize these items; and

WHEREAS, NCPA has issued a Request for Proposal and is currently soliciting competitive bids from multiple vendors to perform the work required for this project. Work will be awarded to the vendor providing the best overall value to NCPA; and

WHEREAS, on May 18, 2023, the Facilities Committee reviewed and approved the recommendation for Commission approval; and

WHEREAS, these activities are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b), 15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines and a Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Sonoma County; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the Geothermal Plant 2, Unit 4 Cooling Tower Temporary Measures Project and delegates authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project in accordance with NCPA purchasing policies and procedures, without further approval by the Commission, for a total amount not exceed \$250,000, to be funded through a Geothermal FY2023 budget augmentation.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023, 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST:

TRISHA ZIMMER
ASSISTANT SECRETARY



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: NCPA Geothermal Plant 1, Unit 1 Steam Strainer Damage Project; Applicable to the following: NCPA Geothermal Facility

AGENDA CATEGORY: Discussion/Action

FROM:	Michael DeBortoli <i>MD</i>	METHOD OF SELECTION:
	Assistant General Manager	<i>Competitive Pricing Process</i>
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Geothermal	

IMPACTED MEMBERS:

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 23-49 authorizing the Geothermal Plant 1, Unit 1 Steam Strainer Damage Project and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project in accordance with NCPA purchasing policies and procedures, without further approval by the Commission, for a total not to exceed amount of \$2,500,000, to be funded through a Geothermal FY2023 budget augmentation.

BACKGROUND:

On March 1, 2023, NCPA's Geothermal Plant 1, Unit 1 was taken offline for routine seasonal Stretford maintenance. During the course of inspections conducted by NCPA staff, steam strainer failures were found which caused strainer material to enter the steam turbine. Staff was unable to remove the upper casing to determine the extent of the damage. NCPA hired Reliable Turbine Services, LLC (RTS) to perform a Steam Path Inspection. RTS removed the upper turbine case and found screen material throughout the turbine rotor and casing diaphragms. Upon initial visual inspection, minimal obvious damage was seen.

RTS is recommending to pull, clean, and conduct nondestructive testing on the turbine rotor and diaphragms, and to remove and inspect the valves. After the turbine rotor, diaphragms, and upper turbine case are examined and any necessary repairs completed, the equipment will be reassembled and returned to service. It is expected that this work will be completed by June 30, 2023.

It is important to note that this unit is scheduled for a regular overhaul in 2026. During the course of this work, staff will be evaluating whether this scope can count as the regular scheduled overhaul, thus enabling NCPA to defer that future work.

FISCAL IMPACT:

The total cost of the project is not to exceed \$2,500,000. A breakdown of the project scope and associated costs is shown below:

Scope of Work	Cost
Steam Path Inspection	\$93,685.00
RTS Proposal dated May 3, 2023 (includes mobilization, removal, blast-cleaning, non-destructive testing of rotor and stationary, valve removals and visual inspection, upper casing inspection, report of findings)	\$406,980.00
Additional Repairs, Reassembly, Demobilization	\$300,000.00
Contingency Funds	\$1,699,335.00
Total Project Cost	\$2,500,000.00

It should be noted that the large contingency is to allow for unexpected findings, and to allow for the option of completing the work as an overhaul, deferring the 2026 work. NCPA will not collect the contingency portion of the augmentation unless the work scope dictates the need.

A FY2023 budget augmentation in the amount of \$2,500,000 is requested to fund this project. If approved, the additional cost of \$2,500,000 would require funding from the Geothermal member agencies in proportion to their individual shares in the Plant 1 project shown below.

**Impact of Plant 1 Unit 1
Steam Strainer Damage
Budget Augmentation to
Participants**

Participant	Total Cost
	2,500,000
Alameda	422,062
Biggs	5,675
Gridley	8,400
Healdsburg	91,850
Lodi	257,000
Lompoc	92,025
Plumas	
Sierra	17,525
Roseville	197,075
Santa Clara	1,109,762
Ukiah	140,363
TID	158,263
	2,500,000

NCPA will issue a special invoice for \$800,665 on May 26, 2023 and payable by June 15, 2023. Project Participants can elect to provide a letter of direction using their GOR funds or send funds from their bank account. If it is recommended to overhaul the unit, NCPA will issue a subsequent special invoice for \$1,699,335 at a later date.

NCPA staff will discuss with its insurance carrier a potential claim resulting from the steam strainer damage.

SELECTION PROCESS:

On April 10, 2023, NCPA issued a Request for Proposals for the Geothermal Plant 1, Unit 1 Steam Path Inspection Project. Three potential bidders were contacted. One bidder declined and two bidders responded with proposals. RTS was selected based on cost and availability. If the project is approved, RTS will be tasked with completing the inspection and implementing the repairs necessary to restore the plant to operation.

ENVIRONMENTAL ANALYSIS:

These activities are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b), 15302 (c), 15303, 15304

and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary.

COMMITTEE REVIEW:

On May 18, 2023, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Randy S. Howard", is written over the typed name.

RANDY S. HOWARD
General Manager

Attachments:

- Resolution 23-49

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING THE GEOTHERMAL PLANT 1, UNIT 1 STEAM STRAINER DAMAGE PROJECT**

(reference Staff Report #167:23)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains on behalf of the project owners a Geothermal facility near Middletown, CA consisting of two power plants with containment areas, 78 steam production and injection wells; and

WHEREAS, on March 1, 2023, NCPA's Geothermal Plant 1, Unit 1 was taken offline for routine seasonal Stretford maintenance. During the course of inspections conducted by NCPA staff, steam strainer failures were found which caused strainer material to enter the steam turbine; and

WHEREAS, NCPA put out a Request for Proposals for the Geothermal Plant 1, Unit 1 Steam Path Inspection Project. Three potential bidders were contacted. NCPA received proposals from two bidders. Reliable Turbine Services (RTS) was selected based on cost and availability. If the project is approved, RTS will be tasked with completing the inspection and implementing any necessary repairs to restore the plant to operation; and

WHEREAS, RTS is recommending to pull, clean, and conduct nondestructive testing on the turbine rotor and diaphragms, and to remove and inspect the valves. After the turbine rotor, diaphragms, and upper turbine case are examined and any necessary repairs are completed, the equipment will be reassembled and returned to service; and

WHEREAS, on May 18, 2023, the Facilities Committee reviewed and approved the recommendation for Commission approval; and

WHEREAS, these activities are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b), 15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the Geothermal Plant 1, Unit 1 Steam Strainer Damage Project and delegates authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project in accordance with NCPA purchasing policies and procedures, without further approval by the Commission, for a total amount not exceed \$2,500,000, to be funded through a Geothermal FY2023 budget augmentation.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023, 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST:

TRISHA ZIMMER
ASSISTANT SECRETARY



Commission Staff Report

COMMISSION MEETING DATE: May 25, 2023

SUBJECT: FY2023 Geothermal Budget Augmentation for Routine Operations and Maintenance (O&M); Applicable to the following: NCPA Geothermal Facility

AGENDA CATEGORY: Discussion/Action

FROM:	Michael DeBortoli <i>MD</i> Assistant General Manager	METHOD OF SELECTION: N/A
Division:	Generation Services	
Department:	Geothermal	

IMPACTED MEMBERS:

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"/>

If other, please specify

Turlock

RECOMMENDATION:

Approve Resolution 23-51 authorizing a FY2023 budget augmentation in the amount of \$2,200,000, for application to NCPA's Geothermal facility Routine Operations and Maintenance (O&M) costs as a result of extraordinary work and extreme weather conditions during the year.

BACKGROUND:

On April 28, 2022, the NCPA Commission approved the FY2023 Annual Budget (Resolution 22-45). Over the course of FY2023, various extraordinary events have resulted in higher than projected expenditures for routine operations and maintenance activities at NCPA's Geothermal facility, including various pump failures requiring the need for maintenance and to purchase parts for the pumps, extreme winter weather conditions causing the need for greater than normal maintenance activities including snow removal services, unexpected transmission line damage requiring emergency repairs, and increasing costs of steam royalties due to the rise in energy prices.

NCPA's Geothermal facility is requesting a budget augmentation to the FY2023 Annual Budget to fund these unexpected maintenance activities.

FISCAL IMPACT:

The requested amount of the FY2023 Geothermal budget augmentation is \$2,200,000. This budget augmentation is needed to fully fund the required operations and maintenance costs. The additional cost of \$2,200,000 would require funding from the Geothermal projects' respective member agencies in proportion to their individual shares therein, as shown below.

Impact Geothermal Fiscal Year O&M to Participants

Participant	Total Cost
	2,200,000
Alameda	371,415
Biggs	4,994
Gridley	7,392
Healdsburg	80,828
Lodi	226,160
Lompoc	80,982
Plumas Sierra	15,422
Roseville	173,426
Santa Clara	976,591
Ukiah	123,519
TID	139,271
	2,200,000

NCPA will issue a special invoice for \$2,200,000 on May 26, 2023 and payable by June 15, 2023. Project Participants can elect to provide a letter of direction using their GOR funds or send funds from their bank account.

ENVIRONMENTAL ANALYSIS:

The activities funded by the requested budget augmentation are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b), 15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary.

COMMITTEE REVIEW:

On May 18, 2023, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Randy S. Howard", is written over the printed name.

RANDY S. HOWARD
General Manager

Attachments:

- Resolution 23-51

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING THE FY2023 GEOTHERMAL BUDGET AUGMENTATION FOR ROUTINE
OPERATIONS AND MAINTENANCE (O&M)**

(reference Staff Report #169:23)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains on behalf of the project owners a Geothermal facility near Middletown, CA consisting of two power plants with containment areas, 78 steam production and injection wells; and

WHEREAS, on April 28, 2022, the NCPA Commission approved the FY2023 Annual Budget (Resolution 22-45); and

WHEREAS, over the course of FY2023, various extraordinary events resulted in higher than projected expenditures for routine operations and maintenance activities at NCPA's Geothermal facility, including various pump failures, extreme winter weather conditions causing the need for increased maintenance activities, unexpected transmission line damage requiring emergency repairs, and an increase in the cost of steam royalties due to the rise in energy prices; and

WHEREAS, the approved budget for FY2023 requires a budget augmentation to fully fund the required operations and maintenance costs. These costs will require funding from the Geothermal projects' respective member agencies in proportion to their individual shares; and

WHEREAS, on May 18, 2023, the Facilities Committee reviewed and approved the recommendation for Commission approval; and

WHEREAS, the activities funded by the requested budget augmentation are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b), 15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes a FY2023 budget augmentation in the amount of \$2,200,000, for application to NCPA's Geothermal facility Routine Operations and Maintenance (O&M) costs as a result of extraordinary work and extreme weather conditions during the year.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023, 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	_____	_____	_____

JERRY SERVENTI
CHAIR

ATTEST:

TRISHA ZIMMER
ASSISTANT SECRETARY