

651 Commerce Drive Roseville, CA 95678

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

Commission Minutes

Date:	April 28, 2022
То:	NCPA Commission
From:	Cary A. Padgett, Assistant Secretary to the Commission
Subject:	NCPA Commission Meeting

1. Call Meeting to Order and Introductions

Chair David Hagele called the meeting to order at 9:36 am at NCPA, 651 Commerce Drive, Roseville, CA. Introductions and roll call were made. Those in attendance are shown on the attached attendance list.

2. Approve Minutes of the March 24, 2022, Regular Commission Meeting.

MOTION: A motion was made by Jerry Serventi, and seconded by Pauline Roccucci approve the Minutes of the March 24, 2022, 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		1 <u></u> 1
San Francisco BART			Х
Biggs	Y		
Gridley	Y		
Healdsburg	Y		
Lodi	Y		
Lompoc	Y		
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		

PUBLIC FORUM

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

REPORTS AND COMMITTEE UPDATES

3. General Manager's Business Progress Report and Update

No report from the General Manager was provided.

Acting Assistant General Manager of Generation Services Michael DeBortoli announced that Jake Eymann accepted NCPA's offer to become the new Plant Manager at the hydroelectric facilities effective April 24th. Jake brings a wealth of experience to the position, as demonstrated through his many accomplishments during the last six years at NCPA's hydro facilities. As the Hydroelectric Engineer V, Jake's responsibilities included successfully managing capital improvement projects, building strong relationships with numerous regulatory compliance agencies, maintaining regulatory compliance, and overseeing improvements and maintenance for all dams.

4. Executive Committee

Committee Chair Hagele reported the Executive Committee met once since the last Commission meeting. The Committee heard a report from General Counsel and met in closed session. No reportable action was taken in closed session. The Committee was provided a presentation by staff regarding an amendment to the Agency's telecommute program. The Committee discussed and agreed due to hiring and retention challenges and remote work findings, to allow an additional job classification to work remote part-time.

5. Facilities Committee

Assistant General Manager Tony Zimmer reported the Committee met once since the last Commission meeting. The Committee discussed Items 13-20, 23-26 on the Consent Calendar, and item 28 under Discussion/Action on today's agenda. A quorum of the Committee was established, and recommended Commission approval of all items. The next Committee meeting is scheduled for May 4.

6. Finance Committee

Committee Chair Catalina reported the Finance Committee did not meet since the last Commission meeting. The next Finance Committee meeting will be held on May 10.

7. Legal Committee

General Counsel Jane Luckhardt reported the Committee met once since the last Commission meeting. The Committee discussed Items 21 and 22 on the Consent Calendar and recommended Commission approval of both items. The Committee met in closed and discussed items 29 A, B, and C on today's agenda. No reportable action was taken in closed session. The Committee also heard reports on the TO18 rate case and an Agency update from General Counsel. The next Committee meeting is scheduled on May 5.

8. Legislative & Regulatory Affairs Committee

Committee Chair Mark Chandler reported the Committee did not meet since the last Commission meeting. The Commission was provided an overview from the Federal Policy Conference that was held in Washington, D.C., earlier in the month. Next year's Conference will be held on April 30-May 4, 2023. The American Public Power Association's National Conference will be held on June 12-15 in Nashville, TN. The next Committee meeting is scheduled on August 24.

9. Members' Announcements & Meeting Reporting

No Member announcements or reporting.

Commissioner Eric Filseth joined the meeting at 9:50 am.

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.

Item 24 was pulled from Consent and moved to Discussion / Action.

MOTION: A motion was made by Mark Chandler, and seconded by Suds Jain to approve the Consent Calendar consisting of Items 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, and 26. The motion carried by a majority of those members present on a roll call vote as follows:

	Vote	Abstained	Absent
Alameda	<u> </u>		
San Francisco BART			X
Biggs	Y		
Gridley	Y		
Healdsburg	Y		
Lodi	Y		
Lompoc	Y		
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		

- 10. NCPA's Financials for the Month Ended March 31, 2022 approval by all members.
- 11. Treasurer's Report for the Month Ended March 31, 2022 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 from the Lodi Energy Center.
- 13. Resolution 22-37, RADCO Communications, LLC Five Year Multi-Task General Services Agreement for microwave tower and communication system maintenance; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members – adopt resolution by members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with RADCO Communications, LLC for microwave tower and communication system maintenance, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years.

Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$2,000,000 over five years.

14. Resolution 22-38, DRS Marine, Inc. – Five Year Multi-Task General Services Agreement for underwater maintenance and inspection services; Applicable to the following: All Northern California Power Agency (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 DRS Marine, Inc. for underwater maintenance and inspection services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years.

Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$2,000,000 over five years.

- 15. Resolution 22-39, TCB Industrial, Inc. Five Year Multi-Task General Services Agreement for mechanical systems maintenance; Applicable to the following: All Northern California Power Agency (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 TCB Industrial, Inc. for mechanical systems maintenance, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years. Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$2,000,000 over five years.
- 16. Resolution 22-40, Global Diving and Salvage, Inc. Five Year Multi-Task General Services Agreement for underwater maintenance and inspection services; Applicable to the following: All Northern California Power Agency (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 Global Diving and Salvage, Inc. for underwater maintenance and inspection services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years. Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$2,000,000 over five years.
- 17. Resolution 22-41, RESA Service, LLC Five Year Multi-Task General Services Agreement for transformer maintenance, switchgear and engineering services; Applicable to the following: All Northern California Power Agency (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 RESA Service, LLC for transformer maintenance, switchgear and engineering services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years.
 Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$2,000,000 over five

18. Resolution 22-42, HDR Engineering, Inc. – Five Year Multi-Task Professional Services Agreement for Engineering Services; Applicable to the following: All Northern California Power Agency (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 Professional Services Agreement with HDR Engineering, Inc. for engineering services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years. Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$1,000,000 over five years.

years.

- 19. Resolution 22-43, Power Engineers, Inc. Five Year Multi-Task Professional Services Agreement for Engineering Services; Applicable to the following: All Northern California Power Agency (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 Professional Services Agreement with Power Engineers, Inc. for engineering services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years. Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$1,000,000 over five years.
- 20. Resolution 22-44, Knights' Electric, Inc. Five Year Multi-Task General Services Agreement for Electrical Maintenance Services; Applicable to the following: All Northern California Power Agency (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 Knights' Electric, Inc. for electrical maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$750,000 over five years. Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$750,000 over five years.
- 21. Resolution 22-48, Colantuono, Highsmith & Whatley, PC Three Year Legal Services Agreement for Assistant General Counsel Services with Option to Extend for Up to Two Additional Years – adopt resolution by all members authorizing the General Manager or his designee to enter into a three-year Legal Services Agreement with Colantuno, Highsmith & Whatley, PC (CHW) for outside Assistant General Counsel services to be provided primarily by David J. Ruderman, with a not to exceed amount of \$500,000. The agreement includes the possibility for amendment to extend the term for up to two additional years for a maximum contract length of five years.

Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$500,000 over three years. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures. The dollar amount is not a guarantee that NCPA will pay the full amount, but is merely a limit of potential expenditures under the Agreement.

- 22. Resolution 22-49, Law Offices of Susie Berlin Three Year Legal Services Agreement for State Regulatory Specialized Services with Option to Extend for Up To Two Additional Years adopt resolution by all members authorizing the General Manager or his designee to enter into a three-year Legal Services Agreement with the Law Offices of Susie Berlin for specialized State Regulatory Counsel services, with a not to exceed amount of \$380,000 per year and not to exceed \$1,140,000 over the three year term. The agreement includes the possibility for amendment to extend the term for up to two additional years for a maximum contract length of five years. Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$380,000 per year and not to exceed \$1,140,000 over the three-year term of the agreement. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures. The dollar amount is not a guarantee that NCPA will pay the full amount, but is merely a limit of potential expenditures under the Agreement. NCPA's approved FY22 legal budget includes \$225,000 for legislative and regulatory services, plus funds in other subject matter line items should services be required. The approved FY23 budget increased the legislative and regulatory services amount to \$260,000.
- 23. Resolution 22-50, Archer Energy Solutions, LLC Five Year Multi-Task Consulting Services Agreement for NERC Cyber Security Supply Chain Management Services and other NERC CIP or Operations and Planning Standards related tasks; Applicable to the following: All Northern California Power Agency (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 Consulting Services Agreement with Archer Energy Solutions, LLC for NERC Cyber Security Supply Chain Management Services and other NERC CIP or Operations and Planning Standards related tasks, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$500,000 over five years.

Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$500,000 over five years.

24. ITEM WAS MOVED TO DISCUSSION / ACTION -- Resolution 22-52, Approval of First Amendment to Antelope Expansion 1B, LLC Power Purchase Agreement – adopt resolution by all members approving the First Amendment to the Power Purchase Agreement between NCPA and Antelope Expansion 1B, LLC, and to authorize the General Manager of NCPA to execute the First Amendment to the PPA, including any non-substantive modifications to First Amendment to the PPA approved by NCPA's General Counsel.

Fiscal Impact: Work associated with developing the Amendment was undertaken pursuant to approved Power Management budget categories, and costs associated with this effort are allocated in accordance with approved cost allocation methodologies as described in the NCPA annual budget.

- 25. Resolution 22-53, Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers – Five Year Multi-Task Consulting Services Agreement for Low Carbon Fuel Standard Fuel Pathway Application, Validation, and Verification Consulting Services; Applicable to the following: Northern California Power Agency (NCPA), NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with Stearns, Conrad and Schmidt, Consulting Engineers, Inc. dba SCS Engineers ("SCS Engineers") for Low Carbon Fuel Standard fuel pathway application, validation, and verification consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$350,000 over five years. Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$350,000 over five years
- 26. Resolution 22-54, Tetra Tech, Inc. Five Year Multi-Task Consulting Services Agreement for Low Carbon Fuel Standard Fuel Pathway Validation and Verification Consulting Services; Applicable to the following: Northern California Power Agency (NCPA), NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with Tetra Tech, Inc. for Low Carbon Fuel Standard fuel pathway validation and verification consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$250,000 over five years. Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$250,000 over five years.

DISCUSSION / ACTION ITEMS

ITEM 24 -- Resolution 22-52, Approval of First Amendment to Antelope Expansion 1B, LLC Power Purchase Agreement – adopt resolution by all members approving the First Amendment to the Power Purchase Agreement between NCPA and Antelope Expansion 1B, LLC, and to authorize the General Manager of NCPA to execute the First Amendment to the PPA, including any non-substantive modifications to First Amendment to the PPA approved by NCPA's General Counsel. **Fiscal Impact**: Work associated with developing the Amendment was undertaken pursuant to approved Power Management budget categories, and costs associated with this effort are allocated in accordance with approved cost allocation methodologies as described in the NCPA annual budget. At the request of Vice-Chair Jerry Serventi, item 24 was pulled from Consent and moved to Discussion / Action for further explanation of who are the project participants, and to provide a background on the project. The project participants include Biggs, Gridley, Healdsburg, Lodi, and the Port of Oakland. General Counsel Jane Luckhardt explained that a project participant can choose to call for a project vote if asked. It was requested that the project participants be listed on future Staff Reports. Assistant General Manager of Power Management Tony Zimmer provided an overview of the project agreement.

MOTION: A motion was made by Mark Chandler, and seconded by Jerry Serventi to adopt resolution by all members approving the First Amendment to the Power Purchase Agreement between NCPA and Antelope Expansion 1B, LLC, and to authorize the General Manager of NCPA to execute the First Amendment to the PPA, including any non-substantive modifications to First Amendment to the PPA approved by NCPA's General Counsel. The motion carried by a majority on a roll call vote of those members present as follows:

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

27. Resolution 22-45, Approval of Fiscal Year 2023 Annual Budget – adopt resolution by all members approving the FY2023 Annual Budget and Working Capital and Funding Requirement as outlined in Resolution 22-45 and as detailed in the attached budgetary support and Annual Budget document.

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 FY2023 is approximately \$562.6 million, which represents an increase of 25.9% or a \$115.6 million dollar increase over the FY2021 budget as summarized in the attached schedule. Allocation of the FY2023 Annual Budget between members and LEC participants is based on participation levels in NCPA programs and projects and the approved cost allocations. Final funding allocation for each member is attached to this staff report and shown in Section 13 of the budget document. The total calculated FY2023 Working Capital Deposit and Funding Requirements for the Annual Budget has increased \$218k or 2.2%. The attached schedule shows each participant's additional Requirement Charge or (Refund). The Additional Requirement Charge will be billed on the next ARB following Commission approval, and Refunds of credit amounts will likewise be deposited into the applicable participant's individual GOR account.

Assistant General Manager / CFO Monty Hanks opened the discussion regarding the progress and steps taken to vet the budget through the Members and designated committees.

Treasurer-Controller Sondra Ainsworth gave a presentation and provided an overview of the FY 2023 proposed budget. The budget was vetted through each NCPA Committee and was recommended for

Commission approval. The Commission discussed and asked questions. A copy of the complete budget can be found on NCPA Connect and NCPA's Website.

MOTION: A motion was made by Mark Chandler, and seconded by Suds Jain to adopt resolution by all members approving the FY2023 Annual Budget and Working Capital and Funding Requirement as outlined in Resolution 22-45 and as detailed in the attached budgetary support and Annual Budget document. The motion carried by a majority on a roll call vote of those members present as follows:

	Vote	Abstained	Absent
Alameda	<u> </u>		
San Francisco BART			X
Biggs	Y		
Gridley	Y		
Healdsburg	Y		
Lodi	Y		
Lompoc	Y		
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		

28. Resolution 22-51, Approval of Exhibit C, Revision 24-1 to Contract 96-SNR-00110 (Western Area Power Administration (WAPA O&M Funding Commitment) – adopt resolution by all members approving Exhibit C, Revision 24-1 to Contract 96-SNR-00110, and authorizing the General Manager of NCPA to execute Exhibit C, Revision 24-1 to Contact 96-SNR-00110, on behalf of NCPA, including any non-substantive modifications to Exhibit C, Revision 24-1 to Contract 96-SNR-00110, on behalf of 00110 approved by NCPA's General Counsel.

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 24-1 to Contract 96-SNR-00110 would establish a commitment by NCPA, specifically the Assigning Members, to provide funds associated with federal Fiscal Year 2024 in the amount of \$11,918,438.68. 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.

Assistant General Manager Tony Zimmer provided a presentation on the funding agreement. Every fiscal year, each customer commits to certain funding levels based on projected needs. The NCPA Pool share is \$11,918,438.68 for the federal FY2024 funding. The net fiscal impact is zero dollars (\$0.00). The amounts initially funded are subsequently refunded by Western using bill credits. NCPA's authority to act on behalf of Pool Members is provided through the Assignment Administration Agreement (aka AAA Agreement), which requires an affirmative vote of all assigning Members at the Commission meeting.

MOTION: A motion was made by Jerry Serventi, and seconded by Mark Chandler to adopt resolution by all members approving Exhibit C, Revision 24-1 to Contract 96-SNR-00110, and authorizing the General Manager of NCPA to execute Exhibit C, Revision 24-1 to Contact 96-SNR-00110, on behalf of NCPA, including any non-substantive modifications to Exhibit C, Revision 24-1 to Contract 96-SNR-00110 approved by NCPA's General Counsel. The motion carried by a majority on a roll call vote of those members present as follows:

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

Non-essential Members and NCPA staff left the meeting for closed session items 29-32.

CLOSED SESSION

Chair Hagele asked General Counsel to move the Commission into closed session at 10:36 am. General Counsel Jane Luckhardt took the Commission into closed session.

29. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

Pursuant to Government Code Section 54956.9(d)(1) - Existing Litigation, three (3) cases:

- A. Case Name: Northern California Power Agency, City of Redding, City of Roseville, and City of Santa Clara v. the United States, Court of Federal Claims No. 14-817C.
- B. Case Name: In Re PG&E Corporation and Pacific Gas and Electric Company, Debtors; United States Bankruptcy Court, Northern District of California, Case Nos. 19-30088 (Lead Case) and 19-30089 DM.
- C. Case Name: City of Santa Clara dba Silicon Valley Power and Northern California Power Agency, Claimants, v. California Department of Water Resources, Respondent, American Arbitration Association, Case No. 01-22-0001-3527.
- **30. CONFERENCE WITH LEGAL COUNSEL** pursuant to Government Code Section 54956.9(d)(2) Anticipated Litigation one (1) case.
- **31. THREAT TO PUBLIC SERVICES OR FACILITIES** Threat to public services or facilities pursuant to Government Code Section 54957:

Consultation with Chief Financial Officer / Assistant General Manager Administrative Services, Monty Hanks, Assistant Manager, Information Services, Christopher Carnesi, and Energy Resource Analyst II – Risk Management, Randall Kramer.

32. CONFERENCE WITH REAL PROPERTY NEGOTIATORS – Pursuant to Government Code Section 54956.8:

Property: 5034 Sunrise Blvd, Fair Oaks, California. Agency negotiator: Randy Howard, General Manager; Monty Hanks, CFO / Assistant General Manager of Administrative Services; and Jonathan Ashcraft, Facilities Manager Negotiating parties: Ethan Conrad Under negotiation: Offer Price and Terms of Payment

RECONVENED TO OPEN SESSION

All meeting attendees rejoined the public meeting at 12:18 pm.

REPORT FROM CLOSED SESSION

Closed Session Disclosure: General Counsel Jane Luckhardt reported there was no reportable action taken in closed session on items 29 A, B & C, 30, and 31. Action was taken on item 32 giving direction to the real property negotiators.

NEW BUSINESS

No new business was discussed.

ADJOURNMENT

The April 28, 2022, Commission meeting was adjourned at 12:19 pm by Chair Hagele.

Respectfully submitted, // DAVID HAGELE Commission Chair

Attachments

Prepared by, //

CARY A. PADGETT Assistant Secretary to the Commission

Northern California Power Agency Commission Meeting April 28, 2022 COMMISSIONERS Attendance List

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

MEMBER	NAME
1 - ALAMEDA	Vice Chair Jerry Serventi
2 - BIGGS	Bo Sheppard
3 - GRIDLEY	Catalina Sanchez
4 - HEALDSBURG	Chair David Hagele
5 - LODI	Mark Chandler
6 - LOMPOC	Jenelle Osborne
7 - PALO ALTO	Eric Filseth
8 - PLUMAS-SIERRA REC	Larry Price
9 - PORT OF OAKLAND	Jared Carpenter
10 - REDDING	Julie Winter
11 - ROSEVILLE	Pauline Roccucci
12 - SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT	Absent
13 - SANTA CLARA	Suds Jain
14 - SHASTA LAKE	James Takehara
15 - TRUCKEE DONNER	Steven Poncelet
16 - UKIAH	Cindy Sauers

Northern California Power Agency Commission Meeting April 28, 2022 Attendance List

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

NAME	AFFILIATION
Nico Procos	Alameda Municipal Power
Mark Sorensen	City of Biggs
Terry Crowley	City of Healdsburg
Jon Abendschein	City of Palo Alto
Mike Brozo	Plumas-Sierra
Dan Beans	Roseville Electric
Kathy Watanabe	City of Santa Clara
Kathleen Hughes	Silicon Valley Power
Basil Wong	Silicon Valley Power
Jane Luckhardt	NCPA
Jane Cirrincione	NCPA
Monty Hanks	NCPA
Tony Zimmer	NCPA
Sondra Ainsworth	NCPA
Mike DeBortoli	NCPA
Cary Padgett	NCPA
Randall Kramer	NCPA

SUPPORT SERVICES PROGRAM STATUS REPORT May 26, 2022						
Member Name	Designated Representatives	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 \$15,000; City Manager & City Attorney NTE \$20,000	\$ 20,000	09/07/16			
Lompoc	Utility Director & City Attorney	\$ 125,000	11/15/16			
Palo Alto	City Manager & City Attorney	\$ 85,000	06/05/17			
Plumas-Sierra REC						
Port of Oakland	Executive Director & Deputy Port Attorney	\$ 150,000	04/14/16			
Redding	Utility Director & City Attorney		04/19/16;			
	Procurement Authority Increased	\$ 200,000	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	
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.	
0246	Port of Oakland	2/3/22	\$ 76,726.00	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.	
0244	City of Palo Alto	2/24/22	\$ 71,800.00	Acterra; host 19 energy efficiency events to raise awareness of electric vehicles and EV adoption.	
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.	
0241	City of Roseville	3/22/22	\$ 32,500.00	DNV Energy Services USA Inc.; energy efficiency services in CY22 including EMV, verification services, and technical advisory services as requested.	
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.	
0239	City of Roseville	11/5/21	\$ 74,961.00	D+R International; provide building and electrification technologies including Home Energy Estimator when considering HVAC systems with heat pump technology and QMerit EV services.	

No.	Member Name	Date	Amount NTE	Vendor Name & Short Description
0238	City of Roseville	10/21/21	\$ 18,945.00	Dudek; Wildfire Mitigation Plan review for 2021.
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.
0234	City of Santa Clara	10/29/21	\$ 26,769.00	Dudek; Independent Evaluator review, report, and presentation to Council re SVP's Wildfire Mitigation Plan.
0231	City of Santa Clara	12/20/21	\$ 18,854.00	D+R International; EE services including EV Digital Toolkit configuration and integration for SVP through January 2024.
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.
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.
0228	City of Palo Alto	7/14/21	\$ 11,950.00	Frontier Energy, Inc.; kitchen energy efficiency services for up to five restaurants to support electrification efforts.
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	City of Healdsburg	7/1/21	\$ 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.

No.	Member Name	Date	Amount NTE	Vendor Name & Short Description
0219	City of Redding	6/29/21	\$312,820.00	Quest Media & Supplies, Inc.; for design services for Fiber Optic Infrastructure Project including site walks, baseline drawings, update every pole drawing, full permit package for project compliant with public works requirements.
0218	City of Redding	6/15/21	\$200,785.00	Bell Burnett & Associates; consulting services to prepare Mitigation Implementation Plan and conduct review of REU's Capital Program and make recommendations about most efficient means of implementation.
0216	Port of Oakland	5/12/21	\$ 7,973.00	TRC Solutions, Inc.; for independent third- party evaluation of Physical Security Plan per CPUC Decision 19-01-018.
0209	City of Redding	6/15/21	\$303,129.00	Quantum Spatial, Inc.; LiDAR remote sensing data services for REU's Tier 1 and Tier 2 regions to assist with vegetation management.
0204	City of Lompoc	3/30/21	\$125,000.00	MFP Connect, Inc.; provide personnel services to lead special project-onboard energy consultant with extensive T&D experience to assess system health, recommend/prioritize critical path maintenance, develop comprehensive CIP and additional duties as requested by UD.
0186 Amd.	Alameda Municipal Power	9/21/20 7/23/21	\$ 75,000.00 \$200,000.00	Flynn Resource Consultants, Inc.; Continued services related to electric transmission issues, grid planning, load levels, regulatory matters, litigation support, and other services as requested in FY21.
0179	Alameda Municipal Power	7/28/20	\$ 67,500.00	Cooperative Response Center; Overflow telephone solution during after-hours or outage situations FY21 and FY22.
0166	City of Palo Alto	7/1/20	\$ 73,325.00	DNV, formerly Energy & Research Solutions; energy efficiency consulting services including energy savings calculation review, rebate application review, business energy audits and technical advice.
0157	City of Lodi	4/28/20	\$154,480.00	Cooperative Response Center; Overflow telephone solution during after-hours or outage situations 24-month period.

No.	NCPA Member	Date	Amount	Vendor Name & Short Description
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	7/11/18	\$148,084.00	Siemens Energy, Inc.; Year 3 of 5-year T-3000 Maintenance Program
0079	City of Redding	7//10/18	\$ 64,223.09	Siemens Energy, Inc.; Year 3 of 5-year T-3000 Maintenance Program.

SSA CONFIRMATIONS EXECUTED AND IN PROGRESS (SCPPA CONTRACTS)

and the second				and the second
No.	NCPA Member	Date	Amount	Vendor Name & Short Description
0232	City of Roseville	3/3/22	\$ 74,500.00	Synergy Companies; provide audits and direct install program of energy saving measures to elibigle small business customers at no cost to customers through Program managed by the City of Roseville
0223	Alameda Municipal Power	8/30/21	\$270,000.00	The Energy Federation, Inc.; eCommerce markektplace platform and fulfillment for AMP's customers; downstream rebate processing.
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 brouwser on common operating systems and mobile devices.
0196	City of Santa Clara	10/13/21	\$ 32,675.00	Tinker, LLC; science-based curriculum energy education program to teach students about energy and how to use it wisely.



651 Commerce Drive Roseville, CA 95678

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

Commission Staff Report

AGENDA ITEM NO.: 5

Date: May 26, 2022

To: NCPA Commission

Subject: May 4, 2022 Facilities Committee Meeting Minutes

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



651 Commerce Drive Roseville, CA 95678

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

Minutes – Draft

Date:	May 11, 2022
То:	NCPA Facilities Committee
From:	Carrie Pollo
Subject:	May 4, 2022 Facilities Committee Meeting Minutes

 Call Meeting to Order & Roll Call – The meeting was called to order by Committee Chair Jiayo Chiang, (Lodi) at 9:05 am. A sign-in sheet was passed around. Attending via teleconference and/or on-line presentation were Alan Harbottle (Alameda), Mark Sorensen (Biggs), Cliff Wagner (Gridley), Melissa Price (Lodi), Shiva Swaminathan (Palo Alto), Mike Brozo (Plumas-Sierra), Khaly Nguyen (Port of Oakland), Nick Rossow (Redding), Ryley Kelly (Roseville), Basil Wong and Steve Hance (Santa Clara), and Willie Manuel and Owen Goldstrom (TID). Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Healdsburg, Lompoc, and Ukiah were absent. A quorum of the Committee was established.

PUBLIC FORUM

No public comment.

2. Approval of Minutes from the April 6, 2022 Facilities Committee meeting.

Motion: A motion was made by Cliff Wagner and seconded by Jiayo Chiang recommending approval of the April 6, 2022 Facilities Committee meeting minutes. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

3. All NCPA Facilities, Members, SCPPA – Kinectrics AES, Inc. MTPSA – Staff presented background information and was seeking a recommendation for Commission approval of a fiveyear Multi-Task Professional Services Agreement with Kinectrics AES, Inc. for generator testing and assessment services, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA currently has an agreement in place with Kinectrics, Inc., which is expiring. NCPA has utilized this vendor in the past for services such as quality control testing on stator bars used in the Hydro generator rewind project. NCPA has a good working relationship with the vendor and wishes to continue that relationship. This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful

bidder on future projects. NCPA has agreements in place for similar services with Ethos Energy, Andritz Hydro, and Sulzer Turbo Services. A draft Commission Staff Report and the draft agreement were available for review. It is recommended to place this item on the Commission Consent Calendar.

Motion: A motion was made by Basil Wong and seconded by Mike Brozo recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with Kinectrics, Inc. for generator testing and assessment services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Port of Oakland, Roseville, and Santa Clara. ABSTAIN = Redding. The motion passed.

4. NCPA Geothermal Facility – GeothermEx, Inc. First Amendment to CSA – Staff presented background information and was seeking a recommendation for Commission approval of a First Amendment to the five-year Consulting Services Agreement with GeothermEx, Inc., increasing the not to exceed amount from \$225,000 to \$1,000,000, with no other changes to the contract terms and conditions, for continued use NCPA's Geothermal facility. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA entered into a five-year Consulting Services Agreement with GeothermEx, Inc. effective February 24, 2020, for an amount not to exceed \$225,000, for use at the Geothermal Facility. NCPA will be working with GeothermEx, Inc. to upgrade to a new software platform. GeothermEx, Inc. will also continue to provide NCPA with ongoing modeling support which provides staff with critical geothermal reservoir data used in operational decision making. There are not enough funds remaining on the agreement for this and future work. NCPA now desires to enter into a First Amendment to the Consulting Services Agreement to increase the not-to-exceed amount from \$225,000 to \$1,000,000 to ensure there are sufficient funds for the work detailed above, as well as through the remaining contract term. 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 agreements in place for similar services with additional vendors at this time. A draft Commission Staff Report and the draft agreement were available for review. It is recommended to place this item on the Commission Consent Calendar.

Motion: A motion was made by Basil Wong and seconded by Mark Sorensen recommending Commission approval authorizing the General Manager or his designee to enter into a First Amendment to the Consulting Services Agreement with GeothermEx, Inc. for geothermal reservoir numerical simulations, with any non-substantial changes recommended and approved by the NCPA General Counsel, increasing the not-to-exceed amount from \$225,000 to \$1,000,000, for continued use at the Geothermal Facility. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Port of Oakland, Roseville and Santa Clara. ABSTAIN = Palo Alto and Redding. The motion passed.

5. NCPA Geothermal Facility – Steam Field Operations Forecast Report – Staff was seeking a recommendation for Commission approval of the 2022 Steam Field Operations Forecast Report, including approval regarding the market power price at which to curtail the load at the NCPA Geothermal facilities, as the Geothermal Operating Protocol effective July 1, 2022, and remaining in effect until replaced by the Commission.

No action was taken on this item. After discussion regarding the operating protocol it was decided to update the protocol information and bring this item back next month to seek a recommendation for Commission approval.

6. NCPA 2022 Wildfire Mitigation Plan – Staff presented background information and was seeking a recommendation for Commission approval of the NCPA 2022 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.

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

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

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

Motion: A motion was made by Mike Brozo and seconded by Mark Sorensen recommending Commission approval of the NCPA 2022 Wildfire Mitigation Plan, with updated revisions based on the qualified independent evaluator's recommendations. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Port of Oakland, Redding, Roseville, Santa Clara, and TID. The motion passed.

7. All NCPA Facilities, Members, SCPPA – Parker Landscape Development, Inc. First Amendment to MTGSA – Staff presented background information and was seeking a recommendation for Commission approval of a First Amendment to the Multi-Task General Services Agreement with Parker Landscape Development, Inc. for professional commercial landscape services, tree care, and special projects increasing the not to exceed amount to \$300,000 for continued use at NCPA all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

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

On April 3, 2018, NCPA entered into a five-year Multi-Task General Services Agreement with Parker Landscape Development, for an amount not to exceed \$200,000. During the agreement term, there were several unforeseen maintenance events, including; a break in the main irrigation

line, irrigation repairs from the fence project, tree and curb removal for the electric vehicle charging stations, and irrigation line repair from the fiber cable installation. Due to these unplanned events, an increase to the contract is required for continued services through the term of the agreement. This enabling agreement does not commit NCPA to any expenditure of funds. A draft Commission Staff Report, draft First Amendment, and the original agreement were available for review. It is recommended to place this item on the Commission Consent Calendar.

Motion: A motion was made by Basil Wong and seconded by Jiayo Chiang recommending Commission approval authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Parker Landscape Development, Inc. for professional commercial landscape services, tree care, and special projects increasing the not to exceed amount to \$300,000 for continued use at NCPA all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Palo Alto, Plumas-Sierra, Port of Oakland, Roseville, Santa Clara, and TID. ABSTAIN = Redding. The motion passed.

8. All NCPA Facilities, Members, SCPPA – TPR Enterprises, LLC dba EcoEngineers MTCSA – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Consulting Services Agreement with TPR Enterprises, LLC dba EcoEngineers for Low Carbon Fuel Standard (LCFS) fuel pathway application, verification, and validation consulting services, with a not to exceed amount of \$350,000, for use by NCPA, NCPA Members, SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

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

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

NCPA issued a Request for Proposal (RFP) LR 2105 on December 17, 2021 to solicit proposals from qualified consultants providing LCFS fuel pathway application, validation, and verification consulting services. NCPA created a review group for the RFP consisting of staff from NCPA and NCPA Member entities, and this review group evaluated and scored timely proposals submitted to the RFP. Seven vendors responded to the RFP by the deadline of January 18, 2022. Based on the scoring review group's evaluation, two vendors were selected to provide fuel pathway application, validation, and verification consulting services, and one additional vendor was selected to provide only fuel pathway validation and verification consulting services. The review group selected EcoEngineers based on its experience, work plan, and costs. This enabling agreement does not commit NCPA to any expenditure of funds. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and

procedures. NCPA is also entering into agreements with SCS Engineers and Tetra Tech, Inc. for similar services. A draft Commission Staff Report and the draft agreement were available for review. It is recommended to place this item on the Commission Consent Calendar.

Motion: A motion was made by Basil Wong and seconded by Khaly Nguyen recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with TPR Enterprises, LLC, dba EcoEngineers ("EcoEngineers") for Low Carbon Fuel Standard fuel pathway application, validation, and verification consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$350,000 over five years, for use by NCPA, NCPA Members, SCPPA, and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Port of Oakland, Redding, Roseville, and Santa Clara. ABSTAIN = TID. The motion passed.

 Approval of Letter of Agreement 22-SNR-02738 – Staff presented background information and was seeking a recommendation for Commission approval of Letter of Agreement 22-SNR-02738 (WAPA 2022 REC Program) between Western Area Power Administration (WAPA) and Northern California Power Agency (NCPA).

Certain resources in the CVP Project are RPS eligible. Western utilizes a voluntary REC program to distribute RECs to Base Resource customers. This Letter of Agreement (LOA) sets forth rules and requirements for the program. The LOA is renewed each year.

By June 1, 2022, Base Resource customers will have to elect to participate in the CY 2022 WAPA REC Program. NCPA has participated in the program on behalf of the Pool Members. Palo Alto has elected to participate in the program separately. The cost for participation is limited to REC transfer costs, and other administrative costs passed-through by Western which is historically less than \$10,000 each year.

Motion: A motion was made by Mark Sorensen and seconded by Jiayo Chiang recommending Commission approval of the 2022 REC Program Letter of Agreement, and to authorize the General Manager of NCPA to execute the 2022 REC Program Letter of Agreement on behalf of NCPA, including any non-substantive modifications to the 2022 REC Program Letter of Agreement approved by NCPA's General Counsel. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, and Port of Oakland. ABSTAIN = Redding, Roseville, Santa Clara, and TID. The motion passed.

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

This item was pulled from the agenda. Negotiations are still in progress for this agreement. This item will be brought back at a later time to seek a recommendation for Commission approval.

INFORMATIONAL ITEMS

11. New Business Opportunities – Staff will provide an update regarding new business opportunities.

SJCE RFP for Wholesale Energy Services – NCPA currently provides a variety of wholesale energy services to SJCE. The SJCE Power Management Services Agreement terminates on August 31, 2022. SJCE issued a Request for Proposal (RFP) seeking wholesale energy services from third party suppliers. NCPA responded to SJCE's RFP by submitting a proposal to continue its supply of certain wholesale energy services, including CAISO Scheduling Agency services. NCPA has been short listed in SJCE's RFP process.

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

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

Other key terms in the proposal include an initial term of three years with an option to extend the term for an additional three two-year terms, and compensation. The draft proposal for the services provided is for a \$733,466 annual fee, with a 3% per year escalation, which would be \$2.26 million during the initial term. NCPA has been initially awarded an offer subject to further negotiation.

Staff is working on a draft agreement focusing on key terms such as indemnification and insurance, scope of services, and environmental requirements. This agreement will be discussed and reviewed between both parties. The final draft of the agreement will be presented to the Facilities Committee seeking a recommendation for Commission approval.

NCPA Renewables RFP Update

Recent Proposals

- Calpine Geothermal Offer (Geysers)
 - Term: 10 years commencing 1/1/2025
 - Volume: 50 MW base 7x24; potentially up to an additional 50 MW
 - Price: To Be Discussed
 - All other terms per the term sheet
- Clearway Renew LLC (Victory Pass / Arica PV + BESS)
 - Term: 20 years
 - Product: 69.5 MW PV plus 15 MW RA only BESS
 - Price: Detail provided on NCPA Connect
 - Estimated COD: June 2024
- Calpine BESS Offer
 - Project: Bear Canyon and West Ford Flat BESS
 - Size: 13 MW / 52 MWh and 25 MW / 100 MWh
 - Term: 15 Years
 - Product: Full Toll or RA Only
 - Price: Detail provided on NCPA Connect
- 12. NCPA Geothermal Unit 3 Battery Energy Storage System (BESS) Staff presented background information regarding the development of a proposed battery energy storage system at the NCPA Geo Plant 2.

NCPA's geothermal facilities are not exporting at full line capacity due to declining steam pressures in the geothermal steam reservoir. NCPA staff is assessing a battery energy storage system that could utilize available capacity on the NCPA Geo 230kV transmission line. The Geo Plant 2 contains Units 3 and 4. Plant 2's original total capacity is ~110 MW. NCPA retired Unit 3 in 2010, due to resource changes. Unit 4 now exports ~40 MW. NCPA has approximately 70 MW of

available capacity on the Fulton transmission line. The development of a proposed battery energy storage system at the NCPA Geo Plant 2 will be broken into three phases.

Project Phases

- Phase 1 Assessment/Feasibility
 - Phase 1.1 Technical Feasibility/Preliminary Project Cost Estimate
 - Phase 1.2 Market Analysis/Modeling
- Phase 2 Detailed Engineering/Permitting
- Phase 3 Construction/Commissioning

Power Engineers was hired to perform preliminary engineering and budgeting for the proposed BESS at the NCPA Geo Plant 2 in Phase 1.1. Project deliverables included AACE Level 5 complete project cost estimate by Phase, a proposed 1 line diagram, and site map showing the proposed project.

Geo Plant 2 BESS Assumptions

- 20 MWh/80 MW Size (4 Hour Batteries)
 - Largest size based on available area inside existing Plant Yard.
- Tesla Megapack (LFP Lithium-ion Phosphate)
 - The LFP batteries have a higher energy density but release significantly less heat (approximately 50% less) than the metal-based batteries

The proposed project cost estimate is approximately \$32,708,286 which includes all phases of the project including commissioning. Proposed economic scenarios for Phase 1.2 were provided and discussed. Potential benefits of BESS at the Geo Plant 2 are listed below:

Potential Benefits of BESS at Geo Plant 2

- Flexibility to meet market demands
- Reduced RA cost to Members
- Capitalizing on available transmission capacity
- Cheaper alternative to Calpine Geysers BESS
- Enhanced renewable energy integration
- Positive public image for the Agency

Staff, unless otherwise directed, plans on moving onto Phase 1.2 and retaining the appropriate market model analysis consultant to further develop the economics of the Geo BESS.

13. NCPA Generation Services Plant Updates – Plant Staff provided an informational update on current plant activities and conditions.

Hydro – Collierville (CV) Power House was 100% available during the month of April, and New Spicer Meadows Power House was at 100% availability as well. New Spicer Meadows storage increased by 22,000 acre feet at 24% month over month from 91,000 acre feet to 113,000 acre feet. Last year's peak was at 94,600 acre feet. The California snow water content is 34% of average for this time of year in Central California. Current regulatory and resource agency activities included working through USGS annual review comments, revising all NCPA EAPs for CAOES, held USFS Annual Meeting, and held USFS McKays Soil Relocation Project meeting. Current operations and maintenance activities during the month included 230 kV ROW line patrol, and completion of the FM Global site inspections of CV and McKays.

CTs – April was a fairly quiet month for the CTs. CT1 had 11 actual starts, bringing the FYTD total to 200, of 0 forecasted. CT2 had 1 start this month of 1 forecasted, bringing the FYTD total to 48 starts. Alameda Unit 1 is still in a forced outage due to an oil system leak. Alameda Unit 2 had a

planned outage for AMPS work. CT1 Lodi has used 25.4 (13%) hours of 200 allowed based on a calendar year. CT1 Alameda Diesel Unit 1 has used 12.8 hours of 20, and Unit 2, 10.8 hours of 20, based on a rolling year. Staff reviewed the CAISO Commitment Runs for April 2022.

Geo – There were no safety incidents to report for the month of April. Vegetation for the month included maintaining fire breaks around transmission towers, and clearing brush around the Bear Canyon pump stations. The average estimated net generation level for the month was 93.8 MW. Total estimated net generation was 67.6 GWh. Actual FY 2022 net generation is 672.9 GWh YTD. The FY 2022 Net Generation Forecast has been updated to 800.8 GWh. Maintenance activities continue for the November 2022 Plant 2 overhaul. Routine plant and Steam Field maintenance continued during the month. The Plant 1 Fire System Modification Project continued with repairing underground piping and began commissioning testing.

14. Planning and Operations Update -

- Resource Integrations In Progress
 - Camp Far West (SVP) Integration Completed
 - Antelope Solar (NCPA) TBD
 - Deer Creek June/July 2022
 - Tulare Solar Commercial Operations Achieved
 - Sandborne Storage Q4 2022
- Summer 2022 Readiness
 - Capacity Scarcity
 - Hydrology
 - Strong Forward Curves
 - Reliability
 - Credit / Cash Flow

14. Next Meeting – The next Facilities Committee meeting is scheduled for June 1, 2022.

ADJOURNMENT

The meeting was adjourned at 12:07 pm by the Committee Chair.

Northern California Power Agency May 4, 2022 Facilities Committee Meeting Attendance List

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

MEMBER	NAME
ALAMEDA	
BART	
BIGGS	
GRIDLEY	
HEALDSBURG	
LODI	
LOMPOC	
PALO ALTO	
PLUMAS-SIERRA REC	
PORT OF OAKLAND	
REDDING	
ROSEVILLE	
SANTA CLARA	\checkmark
TID	
UKIAH	

Northern California Power Agency May 4, 2022 Facilities Committee Meeting Attendance List

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

NAME	AFFILIATION
Carrie Pollo	MCPA
Tony Zimmer	11
Monthe Hanks) t
Janahuckhardt	11
mike DeBortoli	14
Jake Eymann	()
Marc Verletier	tr
Shan Robinson	11
James Mearns	Et
EST VIDGE	11
Jonathan Ashcraft Emily hemei	11
Emily hemei	18
J	



Commission Staff Report

COMMISSION MEETING DATE: May 26 2022

SUBJECT: April 30, 2022 Financial Report (unaudited)

AGENDA CATEGORY: Consent

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

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

April 30, 2022 Financial Report (unaudited) May 26, 2022 Page 2

RECOMMENDATION:

Recommending the Northern California Power Agency (NCPA) Commission approve the Financial Report for month ending April 30, 2022.

NOTICE:

The disbursements of the Northern California Power Agency (NCPA) for the month reported herein, will be approved at the May 26, 2022 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, 2022 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,

S

RANDY S. HOWARD General Manager

Attachments: - April 30, 2022 Financial Report

NORTHERN CALIFORNIA POWER AGENCY and ASSOCIATED POWER CORPORATIONS

Schedule of Disbursements (Unaudited)

For the Month of April 2022

Operations:

Geothermal	\$ 1,351,818
Hydroelectric	3,371,445
CT#1 Combustion Turbines	97,217
CT#2 STIG	446,282
Lodi Energy Center	2,385,684
NCPA Operating	 39,079,932
Total	\$ 46,732,378

NORTHERN CALIFORNIA POWER AGENCY REPORT OF BUDGET VS. ACTUAL COST FOR THE PERIOD ENDED APRIL 30, 2022

		This Month		Actual Year To-Date		FY 2022 Budget	% Used	
GENERATION RESOURCES NCPA Plants								
Hydroelectric								
Other Plant Cost Debt Service (Net)	\$	1,637,785 2,785,136	\$	17,264,108 27,851,364	\$	20,659,536 33,421,637	84% 83%	
Annual Budget Cost		4,422,921		45,115,472		54,081,173	83%	
Geothermal								
Other Plant Cost Debt Service (Net)		3,359,197 412,788		29,500,138 4,127,878		35,708,919 4,953,453	83% 83%	
Annual Budget Cost	1	3,771,985		33,628,016		40,662,372	83%	
Combustion Turbine No. 1								
Fuel Other Plant Cost		201,831 (1,866,998)		2,054,249 4,491,776		791,613 6,263,071	260% 72%	(a) (b)
Other Plant Cost	<u></u>	(1,000,990)		4,491,770		0,203,071	1270	(0)
Annual Budget Cost	2	(1,665,167)		6,546,025		7,054,684	93%	
Combustion Turbine No. 2 (Stig)		57,706		1,562,046		1,265,369	123%	$\langle c \rangle$
Fuel and Pipeline Transport Charges Other Plant Cost		164,777		1,705,504		2,649,010	64%	(c)
Debt Service (Net)		420,667		4,206,667		5,048,000	83%	
Annual Budget Cost		643,150		7,474,217		8,962,379	83%	
Lodi Energy Center								
Fuel		160,888		52,904,717		31,029,301	170%	(c)
Other Plant Cost Debt Service (Net)		2,194,039 2,197,050		41,799,308 21,970,497		31,775,721 26,008,267	132% 84%	(c)
		2,137,030		21,570,457		20,000,207	0470	
Annual Budget Cost		4,551,977		116,674,522		88,813,289	131%	
Member Resources - Energy		5,801,084		67,553,378		67,416,504	100%	(d)
Member Resources - Natural Gas				4,880,753		2,981,422	164%	(c)
Western Resources		2,708,725		19,037,926		27,302,082	70%	
Market Power Purchases		1,868,712	_	39,111,668	_	17,224,803	227%	(d)
Load Aggregation Costs - CAISO Net GHG Obligations		47,455,153		803,505,604 2,354,800		282,244,061 1,276,784	285% N/A	(e)
Net Ono Omigationa								
		69,558,540		1,145,882,381		598,019,553	192%	
TRANSMISSION Independent System Operator								
Grid Management Charge		269,347		4,651,134		2,417,506	192%	(f)
Wheeling Access Charge		14,154,636		114,262,393		119,362,830	96%	(g)
Ancillary Services Other ISO Charges/(Credits)		747,414 (778,354)		9,620,997 (18,303,036)		3,846,319 946,016	250% -1935%	(h) (i)
		14,393,043		110,231,488		126,572,671	87%	(1)
MANAGEMENT SERVICES								
Legislative & Regulatory		165 402		1 412 405		0 404 979	670/	
Legislative Representation Regulatory Representation		165,493 60,691		1,413,405 526,398		2,101,373 633,940	67% 83%	
Western Representation		46,789		459,749		693,937	66%	
Customer Programs		37,637		389,265		481,257	81%	
Judicial Action		-		904,702		300,000	302%	(j)
Power Management								
System Control & Load Dispatch		604,133		5,716,819		7,427,479	77%	
Forecasting, Planning, Prescheduling & Trading		175,585		2,233,371		2,810,687	79%	
Industry Restructuring & Regulatory Affairs		36,978		332,471		423,181	79%	
Contract Admin, Interconnection Svcs & External Affairs		79,516 3,795		797,924 45,441		974,600	82% 56%	
Gas Purchase Program Market Purchase Project		3,795		45,441 73,744		80,779 115,897	56% 64%	
		7,710		.0,144		10,007	J-170	

Management Services continued on next page

NORTHERN CALIFORNIA POWER AGENCY REPORT OF BUDGET VS. ACTUAL COST FOR THE PERIOD ENDED APRIL 30, 2022

	This	Actual Year	FY 2022		
	Month	To-Date	Budget	% Used	
Energy Risk Management	10,834	159,816	198,417	81%	
Settlements	45,673	650,412	975,283	67%	
Integrated Systems Support	2,959	234,727	307,165	76%	
Participant Pass Through Costs	234,436	1,270,340	1,717,765	74%	
Support Services	10,532	1,733,121	-	N/A	
	1,519,766	16,941,705	19,241,760	88%	
TOTAL ANNUAL BUDGET COST	85,471,349	1,273,055,574	743,833,984	171%	
LESS: THIRD PARTY REVENUE					
Plant ISO Energy Sales	10,798,928	153,014,724	101,639,828	151%	(k)
Member Resource ISO Energy Sales	5,943,277	46,768,407	34,352,521	136%	(I)
Member Owned Generation ISO Energy Sales	13,535,783	111,788,992	83,030,430	135%	(I)
Revenue from Customers	851,603	86,365,662	-	N/A	(m)
NCPA Contracts ISO Energy Sales	1,592,010	33,171,687	12,614,852	263%	(I)
Western Resource Energy Sales	1,214,864	16,579,701	19,296,646	86%	
Load Aggregation Energy Sales	7,239,788	383,817,928	-	N/A	(e)
Ancillary Services Sales	404,762	8,074,121	4,317,168	187%	(n)
Transmission Sales	9,198	91,980	110,376	83%	
Western Credits, Interest and Other Income	2,652,069	50,634,664	41,468,679	122%	(0)
	44,242,282	890,307,866	296,830,500	300%	
NET ANNUAL BUDGET COST TO PARTICIPANTS	\$ 41,229,067	\$ 382,747,708 \$	447,003,484	86%	

(a) Increases in costs are driven by greater than budgeted generation at CT1 (169% as of 4/30/22), higher prices per mmBtu, and higher fuel transportation charges.

(b) CT1 completed a planned maintenance outage in December 2021 and was billed in January 2022 for those costs. Those costs were funded from Maintenance Reserve per the approved FY 2022 Budget. The entry to reclass expenses for the amount covered by Maintenance Reserve was made during April, resulting in a net negative monthly expense for CT1.

(c) Increase in costs due to greater than projected MWhs of generation. CT2 is at 131% of budgeted MWhs and LEC is at 129% of budgeted MWhs at 4/30/22. Fuel costs, CA ISO charges, GHG allowance costs, and variable costs have increased as a result of increased generation.

(d) Increase due to higher than anticipated volume of market purchases and price per MWh for those purchases.

- (e) Increase due to unbudgeted energy purchases and energy sales related to CCAs (East Bay Community Energy, San Jose Clean Energy, and Sonoma Clean Power) and participants.
- (f) Increase due to unbudgeted grid management costs, net neutrality charges and other costs related to CCAs (which is offset by revenue from customers) and participants.
- (g) Wheeling Access Charge (WAC) rates increased approximately 20% over budgeted amounts.
- (h) Increase due to unbudgeted ancillary services costs related to CCAs, which is offset by revenue from customers, as well as greater than expected spinning, non-spinning, reg up and down obligation settlements for the NCPA pool.
- (i) Net credit due to revenue from unbudgeted congestion revenue rights and unbudgeted real-time settlement credits.
- (j) Budgeted costs are partially offset by available encumbrances from the prior years. Additional increases relate to unbudgeted costs for privileged and confidential legal matters related to a multiyear litigation.
- (k) Higher plant revenues due to higher generation.
- (I) Higher revenues due to higher energy prices and higher than budgeted contract energy.
- (m) Higher revenue from CCA results from increased charges for energy purchases, grid management, and ancillary services that are billed and settled with customers monthly.
- (n) Increase primarily due to greater than expected spinning and reg up capacity settlements revenue from Hydro plant.
- (o) Increase due primarily to higher than anticipated GHG credits and natural gas transfer credits from LEC participants. Increases are due to higher than budgeted LEC generation.

COMBINED STATEMENTS OF NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

UNAUDITED

	 April 30,	
	2022	2021
ASSETS	(in thousands))
CURRENT ASSETS		
Cash and cash equivalents	\$ 30,603 \$	13,596
Investments	35,164	45,838
Accounts receivable		
Participants	-	1,052
Other	1,164	2,322
Interest receivable	210	285
Inventory and supplies	8,661	6,056
Prepaid expenses	4,694	5,018
TOTAL CURRENT ASSETS	 80,496	74,167
RESTRICTED ASSETS		
Cash and cash equivalents	56,576	54,800
Investments	192,734	202,048
Interest receivable	546	639
TOTAL RESTRICTED ASSETS	 249,856	257,487
ELECTRIC PLANT		
Electric plant in service	1,500,092	1,495,177
Less: accumulated depreciation	(1,073,267)	(1,043,124)
TOTAL ELECTRIC PLANT	 426,825	452,053
OTHER ASSETS		
Regulatory assets	193,927	214,212
Investment in associated company	 265	265
TOTAL ASSETS	 951,369	998,184
DEFERRED OUTFLOWS OF RESOURCES		
Excess cost on refunding of debt	871	13,847
Pension and OPEB deferrals	18,099	16,936
Asset retirement obligations	 61,784	61,901
TOTAL DEFERRED OUTFLOWS OF RESOURCES	80,754	92,684
	 ;/** •	
TOTAL ASSETS AND DEFERRED		
OUTFLOWS OF RESOURCES	\$ 1,032,123 \$	1,090,868

COMBINED STATEMENTS OF NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

UNAUDITED

		April 30,	
		2022	2021
LIABILITIES		(in thousands)	
CURRENT LIABILITIES			
Accounts payable and accrued expenses	\$	42,513 \$	34,095
Member advances		993	993
Operating reserves		25,846	23,675
Current portion of long-term debt		45,450	43,035
Accrued interest payable		8,662	9,916
TOTAL CURRENT LIABILITIES		123,464	111,714
NON-CURRENT LIABILITIES			
Net pension and OPEB liabilities		62,959	63,003
Operating reserves and other deposits		148,564	142,364
Interest rate swap liability		-	16,510
Asset retirement obligations		69,420	67,885
Long-term debt, net		515,501	567,235
TOTAL NON-CURRENT LIABILITIES		796,444	856,997
TOTAL LIABILITIES		919,908	968,711
DEFERRED INFLOWS OF RESOURCES			
Regulatory credits		87,411	86,587
Pension and OPEB deferrals		2,187	4,737
TOTAL DEFERRED INFLOWS OF RESOURCES		89,598	91,324
NET POSITION			
Net investment in capital assets		(30,722)	(31,864)
Restricted		43,473	47.598
Unrestricted		9.866	15,099
TOTAL NET POSITION	8	22,617	30,833
TOTAL LIABILITIES, DEFERRED INFLOWS	0		
OF RESOURCES AND NET POSITION	\$	1,032,123 \$	1,090,868

COMBINED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

UNAUDITED

	Fo	For the Ten Months Ended April 30,		
	2022		2021	
	(in thousands)			
OPERATING REVENUES				
Participants	\$	424,381 \$	325,990	
Other Third-Party		297,498	290,018	
TOTAL OPERATING REVENUES		721,879	616,008	
OPERATING EXPENSES				
Purchased power		336,815	296,931	
Operations		117,121	68,482	
Transmission		172,769	155,033	
Depreciation		25,191	25,080	
Maintenance		21,696	20,236	
Administrative and general		24,319	18,856	
TOTAL OPERATING EXPENSES		697,911	584,618	
NET OPERATING REVENUES		23,968	31,390	
NON OPERATING (EXPENSES) REVENUES				
Interest expense		(20,075)	(24,958)	
Interest income		977	(947)	
Other		10,022	5,257	
TOTAL NON OPERATING EXPENSES		(9,076)	(20,648)	
FUTURE RECOVERABLE AMOUNTS		(16,058)	(11,664)	
REFUNDS TO PARTICIPANTS		(3,845)	(8,637)	
INCREASE (DECREASE) IN NET POSITION		(5,011)	(9,559)	
NET POSITION, Beginning of year		27,628	40,392	
NET POSITION, Period ended	\$	22,617 \$	30,833	

OTHER FINANCIAL INFORMATION

COMBINING STATEMENT OF NET POSITION

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

()						April 30, 20	022				
			GENER	ATING & TRANSMIS	SION RESOURCES						
	Geoth	ermal	Hydroelectric	Multiple Capital Facilities	CT No. One	Lodi Energy Center	Transmission No. One	Purchased Power & Transmission	Associated Member Services	Other	Combined
ASSETS						500				× /	
CURRENT ASSETS											
Cash and cash equivalents	\$	- \$	- \$	1 \$	1 \$	461 \$	s - \$	-	\$ 962 \$	29,178 \$	30,603
Investments		-	-	-	~	5	2	-	-	35,164	35,164
Accounts receivable											
Other		-	×	-	-	*		805	×	359	1,164
Interest receivable		-	-	-	-	5.	-	70	-	140	210
Inventory and supplies		1,514	1,572	332	284	4,959	-	-	-	-	8,661
Prepaid expenses		558	825	68	99	697	-	-	80	2,367	4,694
Due from Agency and other programs*		16,247	6,564	2,850	5,295	6,334	-	7,076	7,070	(51,436)	-
TOTAL CURRENT ASSETS	_	18,319	8,961	3,251	5,679	12,451	· ·	7,951	8,112	15,772	80,496
RESTRICTED ASSETS											
Cash and cash equivalents		854	9,715	1	-	4,975	-	19,801	-	21,230	56,576
Investments		32,454	37,224	3,477	-	37,621	-	19,787		62,171	192,734
Interest receivable		123	62	-	-	72	-	-	-	289	546
TOTAL RESTRICTED ASSETS		33,431	47,001	3,478	-	42,668	· ·	39,588	-	83,690	249,856
ELECTRIC PLANT											
Electric plant in service		577,124	395,575	64,865	37,224	410,254	7,736	-	1,024	6,290	1,500,092
Less: accumulated depreciation		(549,207)	(298,548)	(56,829)	(35,317)	(120,810)	(7,736)	-	(680)	(4,140)	(1,073,267)
TOTAL ELECTRIC PLANT		27,917	97,027	8,036	1,907	289,444		-	344	2,150	426,825
OTHER ASSETS											
Regulatory assets		(1,707)	112,565	2,434		29,330	-	-	-	51,305	193,927
Investment in associated company		-		*	(w))		-		-	265	265
TOTAL ASSETS		77,960	265,554	17,199	7,586	373,893		47,539	8,456	153,182	951,369
DEFERRED OUTFLOWS OF RESOURCES											
Excess cost on refunding of debt		604	(434)	(210)	-	911	-	-	-	-	871
Pension and OPEB deferrals		-	-		-	-		-	2	18,099	18,099
Asset retirement obligations		61,424	-	168	-	192	-	-	-	-	61,784
TOTAL DEFERRED OUTFLOWS OF RESOURCES		62,028	(434)	(42)	-	1,103	-	.=		18,099	80,754
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$	139,988 \$	265,120 \$	17,157 \$	7,586 \$	374,996 \$	s - s	47,539	\$ 8,456 \$	171,281 \$	1,032,123
TO THE RED DET ENGLE OUT FOUR OF RESOURCES		.57,766 Φ	200,120 \$	11,151 Φ	7,550 φ	574,590 @	- 4	47,000	φ 0,750 Φ	1/1,201 Ø	1,032,123

* Eliminated in Combination

OTHER FINANCIAL INFORMATION

COMBINING STATEMENT OF NET POSITION

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

						April 30, 2	022				
			GENER	ATING & TRANSMIS	SION RESOURCES						
				Multiple				Purchased	Associated		
	G	othermal	Hydroelectric	Capital Facilities	CT No. One	Lodi Energy Center	Transmission	Power & Transmission	Member Services	Other Agency	Combined
LIABILITIES		otherman	Hydroclecule	radifices	No. One	Energy Center	Tananiasion	Tanannaaion	bervieta	Ageney	Combined
CURRENT LIABILITIES											
Accounts payable and accrued expenses	\$	291	\$ 246 \$	- \$	1 \$	5 1	\$-\$	28,916		13,058 \$	
Member advances		791	-	-		-	-		202		993
Operating reserves		4,553	250	617	2,869	17,557	-	-	-	-	25,846
Current portion of long-term debt		4,030	24,175	4,365		12,880		-	-	=	45,450
Accrued interest payable		60	3,013	137	-	5,452	-	-	-		8,662
TOTAL CURRENT LIABILITIES		9,725	27,684	5,119	2,870	35,890	-	28,916	202	13,058	123,464
NON-CURRENT LIABILITIES											
Net pension and OPEB liability		-	-	÷	-	-	-	-		62,959	62,959
Operating reserves and other deposits		1,500	20,930	-	-	475	-	39,659	2,315	83,685	148,564
Interest rate swap liability		-	-	-	-	-	-	-	-	-	-
Asset retirement obligations		69,060		168	-	192	-	-	-	-	69,420
Long-term debt, net		6,785	204,636	10,426	-	293,654	-	-	×	-	515,501
TOTAL NON-CURRENT LIABILITIES		77,345	225,566	10,594		294,321		39,659	2,315	146,644	796,444
TOTAL LIABILITIES		87,070	253,250	15,713	2,870	330,211	-	68,575	2,517	159,702	919,908
DEFERRED INFLOWS OF RESOURCES											
Regulatory credits		38,332	3,845	787	2,132	38,865	-	-	368	3,082	87,411
Pension and OPEB deferrals		-	-	-	-		-	-	-	2,187	2,187
TOTAL DEFERRED INFLOWS OF RESOURCES		38,332	3,845	787	2,132	38,865		-	368	5,269	89,598
VET POSITION											
Net investment in capital assets		3,861	(25,317)	(4,917)	-	(4,349)	-	-	-	-	(30,722)
Restricted		3,125	15,304	3,341		12,703	-	9,000	-	~	43,473
Unrestricted		7,600	18,038	2,233	2,584	(2,434)	-	(30,036)	5,571	6,310	9,866
TOTAL NET POSITION TOTAL LIABILITIES, DEFERRED INFLOWS		14,586	8,025	657	2,584	5,920		(21,036)	5,571	6,310	22,617
OF RESOURCES AND NET POSITION	\$	139,988	\$ 265,120 \$	17,157 \$	7,586 \$	374,996	\$-\$	47,539	\$ 8,456 \$	171,281 \$	1,032,123

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 th	e Ten Months End	ded April 30, 202	2			
			GENER	ATING & TRANSMIS	SION RESOURCES	S					
		othermal	Hydroelectric	Multiple Capital Facilities	CT No. One	Lodi Energy Center	Transmission	Purchased Power & Transmission	Associated Member Services	Other	Combined
OPERATING REVENUES		othermal	Hydroelectric	racinues	No. One	Energy Center	Transmission	Transmission	Services	Agency	Combined
Participants	\$	(1,207) \$	23,997 \$	3,435 \$	3,172	\$ 13,717	\$ - :	\$ 361,314	\$ 18,387 \$	1,566 \$	424,381
Other Third-Party		42,623	28,188	1,848	4,604	84,147	-	134,044	2,044	-	297,498
TOTAL OPERATING REVENUES		41,416	52,185	5,283	7,776	97,864	-	495,358	20,431	1,566	721,879
OPERATING EXPENSES											
Purchased power		491	3,839	145	622	2,747	-	328,971	-	-	336,815
Operations		14,744	3,663	2,035	2,776	79,701	-	3,955	10,247		117,121
Transmission		308	302	10	20	521	-	171,604	4	-	172,769
Depreciation		3,120	7,990	1,849	249	11,792	-	-	45	146	25,191
Maintenance		8,726	5,043	457	2,082	5,312	-		76	-	21,696
Administrative and general		5,549	6,598	626	979	4,733	-	-	7,203	(1,369)	24,319
Intercompany (sales) purchases, net*	-	(686)	231	49	81	333	-	-	(8)	-	-
TOTAL OPERATING EXPENSES		32,252	27,666	5,171	6,809	105,139	-	504,530	17,567	(1,223)	697,911
NET OPERATING REVENUES		9,164	24,519	112	967	(7,275)	-	(9,172)	2,864	2,789	23,968
NON OPERATING (EXPENSES) REVENUES											
Interest expense		(380)	(8,448)	(57)	-	(11,190)	-	-	-	-	(20,075)
Interest income		162	170	20	30	232	-	479	38	(154)	977
Other	a	800	1	2,000	-	7,705		(926)		270	10,022
TOTAL NON OPERATING (EXPENSES) REVENUES		582	(8,277)	1,963	30	(3,253)	-	(447)	210	116	(9,076)
FUTURE RECOVERABLE AMOUNTS		(1,996)	(11,225)	(2,365)	-	(472)	-	-	-		(16,058)
REFUNDS TO PARTICIPANTS		378	(490)	484	(172)	459		(875)	(3,308)	(321)	(3,845)
INCREASE (DECREASE) IN NET POSITION	10	8,128	4,527	194	825	(10,541)	-	(10,494)	(234)	2,584	(5,011)
NET POSITION, Beginning of year		6,458	3,498	463	1,759	16,461		(10,542)	5,805	3,726	27,628
NET POSITION, Period ended	\$	14,586 \$	8,025 \$	657 \$	2,584	\$ 5,920	\$ - 5	(21,036)	\$ 5,571 \$	6,310 \$	22,617

* Eliminated in Combination

NORTHERN CALIFORNIA POWER AGENCY & ASSOCIATED POWER CORPORATIONS AGED ACCOUNTS RECEIVABLE April 30, 2022

Status	Participant / Customer	Description	 Amount
CURRENT			\$ 835,247
PAST DUE:			
1 - 30	Merced Irrigation District	April 2022 ARB	36,174 **
31 - 60			
61 - 90			
91 - 120			
Over 120 Days	Calpine Geysers	Effluent Adj (Mar'18 - Dec'19)	292,665 *
	PARTICIPANT and OTHER RECEIVABLES	(net)	\$ 1,164,086

** Denotes items paid/applied after April 30, 2022.

* Billed in July 2020.



Commission Staff Report

COMMISSION MEETING DATE: May 26, 2022

SUBJECT: Treasurer's Report for Month Ended April 30, 2022

AGENDA CATEGORY: Consent

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

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

Treasurer's Report for Month Ended April 30, 2022 May 26, 2022 Page 2

RECOMMENDATION:

Recommending the Northern California Power Agency (NCPA) Commission approve the Treasurer's Report for April 30, 2022.

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.

<u>Cash</u> – At month end cash totaled \$8,163,385 of which approximately \$53,853 was applicable to Special and Reserve Fund Deposits, \$4,502 to Debt Service and \$8,105,030 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.

<u>Investments</u> – The carrying value of NCPA's investment portfolio totaled \$296,420,958 at month end. The current market value of the portfolio totaled \$285,813,532.

The overall portfolio had a combined weighted average interest rate of 0.967% with a bond equivalent yield (yield to maturity) of 0.981%. Investments with a maturity greater than one year totaled \$150,821,000. April maturities totaled \$14 million and monthly receipts totaled \$208 million. During the month \$10 million was invested.

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

<u>Interest Rates</u> – During the month, rates on 90-day T-Bills increased 33 basis points from 0.52% to 0.85% and rates on one-year T-Bills increased 48 basis points from 1.55% to 2.03%.

To the best of my knowledge and belief, all securities held by NCPA as of April 30, 2022 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,

RÀNDY S. HOWARD General Manager

Attachment: Treasurer's Report April 30, 2022

SR: 169:22

NORTHERN CALIFORNIA POWER AGENCY

TREASURER'S REPORT

APRIL 30, 2022

TABLE OF CONTENTS

	PAGE
CASH & INVESTMENT BALANCE	1
CASH ACTIVITY SUMMARY	2
INVESTMENT ACTIVITY SUMMARY	3
INTEREST RATE/YIELD ANALYSIS	4
INVESTMENT MATURITIES ANALYSIS	5
DETAIL REPORT OF INVESTMENTS	APPENDIX

Northern California Power Agency Treasurer's Report Cash & Investment Balance April 30, 2022

	 CASH	IN	VESTMENTS	TOTAL	PERCENT
NCPA FUNDS					
Operating	\$ 8,090,812	\$	86,659,465	\$ 94,750,277	31.11%
Special Deposits	12,967		99,723	112,690	0.04%
Construction	1,251		5,150,497	5,151,748	1.69%
Debt Service	4,502		43,024,065	43,028,567	14.13%
Special & Reserve	 53,853		161,487,208	161,541,061	53.03%
	\$ 8,163,385	\$	296,420,958	\$ 304,584,343	100.00%

Portfolio Investments at Market Value

\$ 285,813,532

NOTE A - Investment amounts shown at book carrying value.

Northern California Power Agency Treasurer's Report Cash Activity Summary April 30, 2022

		RF	ECEIPTS				F	XF	PENDITURE	S			CASH
		IN	TEREST	IN	VESTMENTS			IN	VESTMENTS	INTE	R-COMPANY/	П	NCREASE /
	OPS/CONSTR	()	NOTE B)		(NOTE A)	C	PS/CONSTR		(NOTE B)	FUNE	TRANSFERS	(I	DECREASE)
NCPA FUNDS													
Operating	\$ 40,746,374	\$	111,570	\$	11,743,380	\$	(22,581,059)	\$	(725,472)	\$	(24,529,651)	\$	4,765,142
Special Deposits	525,170		-		-		(20,233,881)		(99,723)		19,807,651		(783)
Construction	-		-		-		-		-		-		-
Debt Service	166,336,387		1		655		(176,305,850)		(4,145,104)		4,041,147		(10,072,764)
Special & Reserve	-		114,952		2,011,018		(3,392,843)		(4,660,787)		680,853	_	(5,246,807)
	\$ 207,607,931	\$	226,523	\$	13,755,053	\$	(222,513,633)	\$	(9,631,086)	\$		\$	(10,555,212)

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, 2022

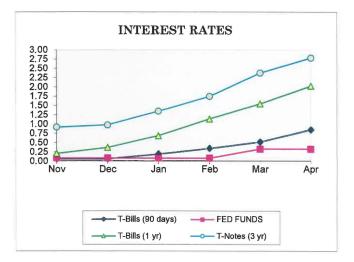
					()	NON-CASH)	(N	ION-CASH)		INVEST	IEN	TS
				SOLD OR	D	ISC/(PREM)	G	AIN/(LOSS)]	INCREASE /
	PU	RCHASED		MATURED		AMORT		ON SALE	TI	RANSFERS	(DECREASE)
NCPA FUNDS												
Operating	\$	725,472	\$	(11,743,380)	\$	3,194	\$	184	\$	-	\$	(11,014,530)
Special Deposits		99,723		-		-		-		-		99,723
Construction		-		-		751		-		-		751
Debt Service		4,145,104		(655)		7,202		-		-		4,151,651
Special & Reserve		4,660,787		(2,011,018)		(15,273)		(95)		-		2,634,401
	\$	9,631,086	\$	(13,755,053)	\$	(4,126)	\$	89	\$	-	\$	(4,128,004)
Less Non- Cash Activity												
Disc/(Prem) Amortization &	a Gai	n/(Loss) on S	ale	e								4,037
Net Change in InvestmentI	Befor	e Non-Cash	Act	tivity							\$	(4,123,967)

NOTE A -Investment amounts shown at book carrying value.

Northern California Power Agency Interest Rate/Yield Analysis April 30, 2022

	WEIGHTED AVERAGE INTEREST RATE	BOND EQUIVALENT YIELD
OVERALL COMBINED	0.967%	0.981%
OPERATING FUNDS:	1.134%	1.096%
PROJECTS:		
Geothermal	1.437%	1.331%
Capital Facilities	0.363%	0.369%
Hydroelectric	0.654%	0.715%
Lodi Energy Center	0.625%	0.567%

KEY INTEREST RATES	_	
		PRIOR
	CURRENT	YEAR
Fed Fds (Overnight)	0.33%	0.07%
T-Bills (90da.)	0.85%	0.01%
Agency Disc (90da.)	1.00%	0.05%
T-Bills (1yr.)	2.03%	0.05%
Agency Disc (1yr.)	2.18%	0.07%
T-Notes (3yr.)	2.79%	0.35%

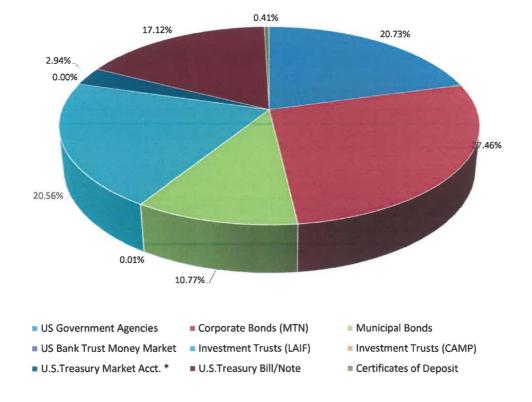


Northern California Power Agency Total Portfolio Investment Maturities Analysis April 30, 2022

		0-7		8-90	91-180	1	81-270	271-365	1-5		6-10		
Туре		Days		Days	 Days		Days	 Days	 Years		Years	Total	Percent
US Government Agencies	\$		\$	11,375	\$ -	\$	-	\$	\$ 44,605	\$	7,072	\$ 63,052	20.73%
Corporate Bonds (MTN)		-		1,000	1,000		5,950	10,550	65,004		-	83,504	27.46%
Municipal Bonds		-		1,000	-		-	-	30,045		1,720	32,765	10.77%
US Bank Trust Money Market		24		-	-		-	-	-		-	24	0.01%
Investment Trusts (LAIF)		62,551		-	-		-	-	-		-	62,551	20.56%
Investment Trusts (CAMP)		1		-	-		-	-	-		-	1	0.00%
U.S.Treasury Market Acct. *		8,950		-	-		-	-	-		-	8,950	2.94%
U.S.Treasury Bill/Note				50,195	-		-	-	1,875		-	52,070	17.12%
Certificates of Deposit		-		10	750			-	500		-	1,260	0.41%
Total Dollars	\$	71,526	;	\$63,580	\$1,750	_	\$5,950	\$ 10,550	\$ \$142,029	-	\$8,792	\$ 304,177	100.00%
Total Percents	_	23.51%		20.90%	0.58%		1.96%	3.47%	46.69%		2.89%	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.



Portfolio Composition

NORTHERN CALIFORNIA POWER AGENCY

Detail Report Of Investments

APPENDIX

Note:

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



Treasurer's Report

04/30/2022

)perating

ssuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
ocal Agency Investm	LAIF	21,037,940	0.315		21,037,940		1	0.315	21,037,940	SYS70000	70000	21,037,940
irst American Govt.	USBGC	22,106	0.002		22,106		1	0,002	22,106		70014	22,106
'S Bank	USB	8,090,812	0.001		8,090,812		1	0.001		SY\$70050	70050	8,090,812
alifornia Asset Mam	CMP	490	0.050	10/19/2018	490		1	0.050	Stor Street Stor State State	SYS70070	70070	490
'S Bank	USB	10,000	0.050	04/07/2022	10,000	07/07/2022	67	0.050	10,000		30329	10,000
merican Honda Finan	USBGC	500,000	2,600	06/12/2018	488,550	11/16/2022	199	3,157	501,615		26614	498,599
hevron Corp.	USBGC	500,000	2.355	03/21/2018	485,760	12/05/2022	218	3.008	500,770	166764AB6	26555	498,201
ïsa Inc.	USBGC	400,000	2.800	08/03/2018	394,552	12/14/2022	227	3.135	401,860	92826CAC6	26647	399,227
oyota Motor Credit	USBGC	1,000,000	2,700	08/03/2018	974,760	01/11/2023	255	3.315	1,002,320	89236TEL5	26645	996,051
xxon Mobil Corporat	USBGC	1,000,000	2.726	08/03/2018	985,450	03/01/2023	304	3.068	1,002,760	30231GAR3	26648	997,351
ohn Deere Capital C	USBGC	500,000	2.800	06/12/2018	489,875	03/06/2023	309	3.264	502,565	24422ETG4	26613	498,188
erkshire Hathaway I	USBGC	500,000	2.750	03/21/2018	492,280	03/15/2023	318	3.086	502,075	084670BR8	26554	498,649
Inited Parcel Servic	USBGC	500,000	2,500	05/15/2018	483,225	04/01/2023	335	3.248		911312BK1	26600	496,848
inited Parcel Servic	USBGC	500,000	2.500	09/21/2018	483,120	04/01/2023	335	3.308	500,725	911312BK1	26677	496,583
Valmart, Inc.	USBGC	500,000	2.550	07/31/2019	507,870	04/11/2023	345	2.104	501,160	931142DH3	26848	502,012
ank of NY Mellon Co	USBGC	500,000	3,500	05/15/2018	501,265	04/28/2023	362	3.443	505,130	06406RAG2	26602	500,253
ershey Company	USBGC	500,000	3.375	06/12/2018	503,125	05/15/2023	379	3.236	503,735	427866AZ1	26615	500,659
ommonwealth of Mass	USBGC	500,000	0.508	07/09/2020	500,000	07/01/2023	426	0.507	488,325	57582RF84	27029	500,000
'S Bank	USBGC	1,000,000	3.400	08/03/2018	1,000,000	07/24/2023	449	3.399	1,008,180	90331HNV1	26646	1,000,000
licrosoft Corp.	USBGC	1,000,000	2.000	09/20/2018	947,350	08/08/2023	464	3.172	996,750	594918BQ6	26672	986,313
P Morgan	USBGC	500,000	3.875	02/15/2019	514,550	02/01/2024	641	3,561	506,905	46625HJT8	26760	505,132
ast Side Union High	USBGC	500,000	0.820	10/29/2020	500,000	08/01/2024	823	0.878	475,890	275282PR6	27105	500,000
A St Dept of Wtr Re	USBGC	600,000	0,560	08/06/2020	600,000	12/01/2024	945	0.584	561,660	13067WRB0	27055	600,000
'S Bank, N.A.	USBGC	500,000	2.800	02/07/2020	522,560	01/27/2025	1,002	1.846	494,170	90331HMS9	26947	512,427
tate of Louisiana	USBGC	260,000	0.697	02/25/2021	260,000	06/15/2025	1,141	0.730	240,027	546486BV2	27178	260,000
ashville Met Gov	USBGC	500,000	0.610	02/18/2021	500,000	07/01/2025	1,157	0.629	461,895	592112UB0	27173	500,000
ity of Phoenix AZ	USBGC	500,000	0,959	08/25/2020	500,000	07/01/2025	1,157	0.990	467,675	71884AF20	27058	500,000
visconsin Dept Trans	USBGC	500,000	0.774	07/30/2020	500,000	07/01/2025	1,157	0.787	462,060	977123X78	27041	500,000
let Life Glob Fundin	USBGC	1,000,000	0.950	03/04/2022	961,800	07/02/2025	1,158	2.145	923,200	59217GEJ4	27375	963,618
ast Side Union High	USBGC	1,000,000	0.940	10/29/2020	1,000,000	08/01/2025	1,188	0.992	931,260	275282PS4	27106	1,000,000
ederal National Mtg	USBGC	1,000,000	0.650	12/21/2020	1,005,200	11/18/2025	1,297	0.542	923,490	3135GA4P3	27137	1,003,758
P Morgan	USBGC	250,000	0.825	12/22/2020	250,000	12/22/2025	1,331	0.825	221,473	48128GY53	27138	250,000
oyota Motor Credit	USBGC	500,000	0,700	01/21/2021	500,000	01/20/2026	1,360	0.699	442,795	89236THY4	27149	500,000
ederal Home Loan Ba	USBGC	375,000	0,500	02/25/2021	375,000	02/25/2026	1,396	0.500	341,753	3130AKXX9	27179	375,000
ederal Home Loan Ba	USBGC	1,000,000	1.483	02/28/2022	1,000,000	02/27/2026	1,398	1.483	974,220	3130AQZV8	27366	1,000,000
ederal Farm Credit	USBGC	1,100,000	0.800	03/09/2021	1,100,000	03/09/2026	1,408	0,800	1,020,217	3133EMSU7	27200	1,100,000
Inited Health Group	USBGC	500,000	1.150	06/28/2021	501,660	05/15/2026	1,475	1.079	455,835	91324PEC2	27230	501,374
ank of America Corp	USBGC	1,700,000	1.250	05/28/2021	1,700,000	05/28/2026	1,488	1,250	1,521,398	06048WM31	27225	1,700,000
let Govt Nashville &	UBOC	250,000	1.181	10/14/2021	250,000	07/01/2026	1,522	1.181	229,665	592098X77	27291	250,000
an Diego CA Unif Sc	USBGC	250,000	1.201	10/21/2021	250,000	07/01/2026	1,522	1.201	230,688	797356DF6	27298	250,000



Northern California Power Agency Treasurer's Report

04/30/2022

)perating

r Autual Global Fu y of Bexar TX								Por di				
/lutual Global Fu	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
v of Beyer TX	USBGC	500,000	1.200	08/02/2021	503,610	07/16/2026	1,537	1.050	453,450	57629WDE7	27247	503,066
y of Dexai TX	USBGC	100,000	1.272	09/23/2021	100,000	08/15/2026	1,567	1.272	90,967	088518NV3	27273	100,000
al Home Loan Ba	USBGC	500,000	0.875	08/17/2021	500,000	08/17/2026	1,569	0.875	459,830	3130ANGX2	27252	500,000
rgan	USBGC	1,000,000	1.150	08/17/2021	1,000,000	08/17/2026	1,569	1.150	887,160	48128G4R8	27251	1,000,000
of America Corp	USBGC	750,000	1.250	08/26/2021	750,000	08/26/2026	1,578	1.250	665,798	06048WN22	27255	750,000
oillar Financia	USBGC	500,000	1.150	10/13/2021	498,165	09/14/2026	1,597	1.227	452,800	14913R2Q9	27288	498,370
Deere Capital C	USBGC	500,000	2,250	10/14/2021	524,355	09/14/2026	1,597	1.225	475,195	24422EVB2	27294	521,644
al Home Loan Ba	USBGC	630,000	0.900	09/28/2021	630,000	09/28/2026	1,611	0,900	579,871	3130ANXS4	27276	630,000
ce Standard Li	USBGC	1,500,000	1.512	10/14/2021	1,491,180	09/28/2026	1,611	1.635	1,345,245	75951AAQ1	27292	1,492,154
I Holdings Inc.	USBGC	500,000	2.650	10/14/2021	533,315	10/01/2026	1,614	1.260	478,920	70450YAD5	27293	529,642
Arizona Corp.	USBGC	1,525,000	1.750	12/08/2021	1,537,993	10/25/2026	1,638	1.567	1,398,059	872898AA9	27330	1,536,936
Storage	USBGC	1,910,000	1.500	12/08/2021	1,912,216	11/09/2026	1,653	1.475	1,746,256	74460DAG4	27336	1,912,037
al Home Loan Ba	USBGC	50,000	0.800	12/29/2021	50,000	12/29/2026	1,703	1.509	47,012	3130AQER0	27342	50,000
al Home Loan Ba	USBGC	3,000,000	1.000	01/28/2022	3,000,000	01/28/2027	1,733	1.691	2,856,210	3130AQN66	27364	3,000,000
	Fund Total and Average	\$ 64,311,348	0.987		\$ 64,220,134		630	1.062	\$ 62,403,092			\$ 64,325,440
GHG Auction A	Acct											
Agency Investm		862,539	0.315		862,539		1	0.315	862,539	SYS70045	70045	862,539
	Fund Total and Average	\$ 862,539	0.315		\$ 862,539		1	0.315	\$ 862,539			\$ 862,539
Security Depos	sit Acct											
Agency Investm		99,723	0.236	07/01/2021	99,723		1	0.236	99,723	SYS70048	70048	99,723
	Fund Total and Average	\$ 99,723	0.236		\$ 99,723		1	0.236	\$ 99,723			\$ 99,723
A Balancing Ac	count											
Agency Investm	LAIF	9,245,445	0.315		9,245,445		1	0.315	9,245,445	SYS70022	70022	9,245,445
merican Govt.	USBGC	68,824	0.002		68,824		1	0.002	68,824	SYS70023	70023	68,824
Depot Inc.	USBGC	500,000	2.625	04/04/2018	494,290	06/01/2022	31	2.918	500,000	437076BG6	26572	499,886
Storage	USBGC	500,000	2.370	04/04/2018	483,705	09/15/2022	137	3.161	500,345	74460DAB5	26573	498,636
ic.	USBGC	250,000	2.800	07/24/2018	246,975	12/14/2022	227	3.096	251,163	92826CAC6	26632	249,573
orp	USBGC	500,000	2.700	06/22/2018	492,300	12/15/2022	228	3.070	503,200	458140AM2	26625	498,931
	USBGC	550,000	2.625	05/09/2018	536,294	01/10/2023	254	3,203		89233P7F7	26598	547,970
Motor Credit	USBGC	500,000	2.600	06/22/2018	487,655	02/28/2023	303	3.170	500,370	17275RBE1	26624	497,825
Motor Credit Systems Inc.												
	USBGC	500,000	2,750	05/09/2018	490,280	03/15/2023	318	3,185	502,075	084670BR8	26596	498.252
Systems Inc.		500,000 500,000	2.750 2.500	05/09/2018 06/22/2018		03/15/2023 04/01/2023		3.185 3.191				498,252 497,078
Systems Inc. ire Hathaway I	USBGC	500,000	2.500	06/22/2018	490,280 484,780	04/01/2023	335	3.191	500,725	911312BK1	26627	497,078
Systems Inc. ire Hathaway I Parcel Servic	USBGC USBGC				490,280				500,725 500,020			
Storage	USBGC USBGC USBGC USBGC	500,000 250,000 500,000 550,000	2.370 2.800 2.700 2.625	04/04/2018 07/24/2018 06/22/2018 05/09/2018	483,705 246,975 492,300 536,294	09/15/2022 12/14/2022 12/15/2022 01/10/2023	137 227 228 254	3.161 3.096 3.070 3.203	500,345 251,163 503,200 552,327	74460DAB5 92826CAC6 458140AM2 89233P7F7	26573 26632 26625 26598	



Treasurer's Report

04/30/2022

CPA Balancing Account

suer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Val
emphis Center City	USBGC	500,000	2.948	11/23/2020	550,395	04/01/2025	1,066	0.600	495,720	586145F74	27113	533,74
ate of Wisconsin	USBGC	400,000	0.650	03/17/2021	400,000	05/01/2025	1,096	0.649	371,280	97705MUK9	27202	400,00
ilifornia St Hlth F	USBGC	500,000	0.952	11/04/2020	500,000	06/01/2025	1,127	0.952	463,160	13032UXM5	27110	500,00
ty of Baltimore	USBGC	500,000	0.845	12/02/2020	500,000	07/01/2025	1,157	0.932	462,830	059231X39	27125	500,00
ashville Met Gov	USBGC	500,000	0.610	02/18/2021	500,000	07/01/2025	1,157	0.610	461,895	592112UB0	27174	500,00
ederal Farm Credit	USBGC	2,045,000	0,530	09/29/2020	2,045,000	09/29/2025	1,247	0.530	1,878,578	3133EMBJ0	27077	2,045,00
ederal Farm Credit	USBGC	2,050,000	0.530	09/29/2020	2,050,000	09/29/2025	1,247	0.530	1,886,287	3133EMBH4	27078	2,050,00
ople Inc.	USBGC	500,000	0.700	02/17/2021	500,000	02/08/2026	1,379	0.699	456,650	037833EB2	27168	500,00
deral Home Loan Ba	USBGC	500,000	0.520	02/12/2021	499,750	02/12/2026	1,383	0.530	453,125	3130AKWA0	27164	499,81
Morgan	USBGC	1,000,000	0,500	02/17/2021	1,000,000	02/17/2026	1,388	0.500	881,750	46632FRV9	27171	1,000,00
deral Home Loan Ba	USBGC	125,000	0.500	02/25/2021	125,000	02/25/2026	1,396	0,500	113,918	3130AKXX9	27180	125,00
deral Home Loan Ba	USBGC	1,000,000	0,630	02/26/2021	1,000,000	02/26/2026	1,397	0.630	922,260	3130ALB94	27195	1,000,00
deral Farm Credit	USBGC	1,650,000	0.800	03/09/2021	1,650,000	03/09/2026	1,408	0.800	1,530,326	3133EMSU7	27201	1,650,00
nk of America Corp	USBGC	500,000	1.200	06/28/2021	500,000	06/25/2026	1,516	1.199	442,015	06048WM64	27227	500,00
assMutual Global Fu	USBGC	500,000	1.200	08/02/2021	503,610	07/16/2026	1,537	1.050	453,450	57629WDE7	27248	503,06
nk of America Corp	USBGC	50,000	1.250	08/26/2021	50,000	08/26/2026	1,578	1.250	44,387	06048WN22	27256	50,00
MC Arizona Corp.	USBGC	200,000	1.750	12/08/2021	201,704	10/25/2026	1,638	1.567	183,352	872898AA9	27331	201,56
blic Storage	USBGC	275,000	1.500	11/19/2021	274,095	11/09/2026	1,653	1.569	251,424	74460DAG4	27311	274,17
blic Storage	USBGC	250,000	1,500	12/08/2021	250,290	11/09/2026	1,653	1.475	228,568	74460DAG4	27337	250,26
deral Home Loan Ba	USBGC	100,000	0.800	12/29/2021	100,000	12/29/2026	1,703	1.509	94,024	3130AQER0	27343	100,00
hn Deere Capital C	USBGC	525,000	1.700	01/14/2022	524,223	01/11/2027	1,716	1.731	482,995	24422EWA3	27362	524,26
deral Home Loan Ba	USBGC	300,000	1.000	01/28/2022	300,000	01/28/2027	1,733	1.691	285,621	3130AQN66	27365	300,00
deral Home Loan Ba	USBGC	500,000	3.000	04/29/2022	500,000	04/29/2027	1,824	4.219	496,140	3130ARR52	27399	500,00
	Fund Total and Average	\$ 29,084,269	1.041		\$ 29,016,240		731	1.123	\$ 27,964,819			\$ 29,101,18
eneral Operating												
al Agency Investm	LAIF	21,229,740	0.315		21,229,740		1	0.315	21,229,740	SYS70000	70002	21,229,74
st American Govt.	USBGC	0	0.002		0		1	0.002	0	SYS70019	70019	
	USB	0	0.000	07/01/2021				0.000	0	SYS70051	70051	
Bank			0.000		0		1	0.000				
	CMP	513	0.000	12/14/2018	0 513		1 1			SYS70071	70071	51
lifornia Asset Mgm	CMP USBGC	513	0.050		513	06/10/2022	1	0.050	513	SYS70071 313379Q69	70071 26467	
lifornia Asset Mgm deral Home Loan Ba		513 3,575,000		12/14/2018 08/28/2017	513 3,634,560		1 40	0.050 1.760	513 3,580,935	313379Q69	26467	3,576,34
ifornia Asset Mgm Ieral Home Loan Ba osiCo Inc.	USBGC	513	0.050 2.125	12/14/2018	513 3,634,560 500,310	07/17/2022	1 40 77	0.050 1.760 3.083	513 3,580,935 500,240	313379Q69 713448CX4	26467 26580	3,576,34 500,01
ifornia Asset Mgm Jeral Home Loan Ba osiCo Inc. a Inc.	USBGC USBGC	513 3,575,000 500,000 500,000	0.050 2.125 3.100	12/14/2018 08/28/2017 04/26/2018	513 3,634,560 500,310 492,600		1 40	0.050 1.760	513 3,580,935 500,240 502,325	313379Q69 713448CX4 92826CAC6	26467 26580 26584	3,576,34 500,01 499,01
ifornia Asset Mgm Ieral Home Loan Ba osiCo Inc. a Inc. Bank, N.A.	USBGC USBGC USBGC	513 3,575,000 500,000	0.050 2.125 3.100 2.800	12/14/2018 08/28/2017 04/26/2018 04/26/2018	513 3,634,560 500,310	07/17/2022 12/14/2022	1 40 77 227 267	0.050 1.760 3.083 3.145 3.140	513 3,580,935 500,240 502,325 753,743	313379Q69 713448CX4 92826CAC6 90331HNL3	26467 26580 26584 26737	3,576,34 500,01 499,01 748,51
lifornia Asset Mgm deral Home Loan Ba osiCo Inc. a Inc. Bank, N.A. nk of NY Mellon Co	USBGC USBGC USBGC USBGC	513 3,575,000 500,000 500,000 750,000 500,000	0.050 2.125 3.100 2.800 2.850 2.950	12/14/2018 08/28/2017 04/26/2018 04/26/2018 01/30/2019 04/26/2018	513 3,634,560 500,310 492,600 741,900 491,790	07/17/2022 12/14/2022 01/23/2023 01/29/2023	1 40 77 227 267 273	0.050 1.760 3.083 3.145 3.140 3.325	513 3,580,935 500,240 502,325 753,743 502,495	313379Q69 713448CX4 92826CAC6 90331HNL3 06406RAE7	26467 26580 26584 26737 26575	3,576,34 500,01 499,01 748,51 498,71
ifornia Asset Mgm Ieral Home Loan Ba osiCo Inc. a Inc. Bank, N.A. Ik of NY Mellon Co xair Inc	USBGC USBGC USBGC USBGC USBGC	513 3,575,000 500,000 750,000 500,000 500,000	0.050 2.125 3.100 2.800 2.850 2.950 2.700	12/14/2018 08/28/2017 04/26/2018 04/26/2018 04/26/2018 04/26/2018	513 3,634,560 500,310 492,600 741,900 491,790 488,350	07/17/2022 12/14/2022 01/23/2023 01/29/2023 02/21/2023	1 40 77 227 267 273 296	0.050 1.760 3.083 3.145 3.140 3.325 3.225	513 3,580,935 500,240 502,325 753,743 502,495 501,005	313379Q69 713448CX4 92826CAC6 90331HNL3 06406RAE7 74005PBF0	26467 26580 26584 26737 26575 26581	3,576,34 500,01 499,01 748,51 498,71 498,05
ifornia Asset Mgm deral Home Loan Ba osiCo Inc. a Inc. Bank, N.A. ak of NY Mellon Co xair Inc kshire Hathaway I	USBGC USBGC USBGC USBGC USBGC USBGC	513 3,575,000 500,000 750,000 500,000 500,000 500,000	0.050 2.125 3.100 2.800 2.850 2.950 2.700 2.750	12/14/2018 08/28/2017 04/26/2018 04/26/2018 01/30/2019 04/26/2018 04/26/2018 04/26/2018	513 3,634,560 500,310 492,600 741,900 491,790 488,350 488,350	07/17/2022 12/14/2022 01/23/2023 01/29/2023 02/21/2023 03/15/2023	1 40 77 227 267 273 296 318	0.050 1.760 3.083 3.145 3.140 3.325 3.225 3.225 3.243	513 3,580,935 500,240 502,325 753,743 502,495 501,005 502,075	313379Q69 713448CX4 92826CAC6 90331HNL3 06406RAE7 74005PBF0 084670BR8	26467 26580 26584 26737 26575 26581 26576	3,576,34 500,01 499,01 748,51 498,71 498,05 498,05
lifornia Asset Mgm deral Home Loan Ba osiCo Inc. a Inc. Bank, N.A. hk of NY Mellon Co xair Inc kshire Hathaway I ted Parcel Servic	USBGC USBGC USBGC USBGC USBGC USBGC USBGC	513 3,575,000 500,000 750,000 500,000 500,000 500,000 500,000	0.050 2.125 3.100 2.800 2.850 2.950 2.700 2.750 2.500	12/14/2018 08/28/2017 04/26/2018 04/26/2018 01/30/2019 04/26/2018 04/26/2018 04/26/2018 04/26/2018	513 3,634,560 500,310 492,600 741,900 491,790 488,350 488,920 483,135	07/17/2022 12/14/2022 01/23/2023 01/29/2023 02/21/2023 03/15/2023 04/01/2023	1 40 77 227 267 273 296 318 335	0.050 1.760 3.083 3.145 3.140 3.325 3.225 3.243 3.245	513 3,580,935 500,240 502,325 753,743 502,495 501,005 502,075 500,725	313379Q69 713448CX4 92826CAC6 90331HNL3 06406RAE7 74005PBF0 084670BR8 911312BK1	26467 26580 26584 26737 26575 26581 26576 26583	3,576,34 500,01 499,01 748,51 498,71 498,02 498,02 496,86
i Bank lifornia Asset Mgm deral Home Loan Ba psiCo Inc. a Inc. Bank, N.A. nk of NY Mellon Co axair Inc rkshire Hathaway I ited Parcel Servic evron Corp. zona Board of Reg	USBGC USBGC USBGC USBGC USBGC USBGC	513 3,575,000 500,000 750,000 500,000 500,000 500,000	0.050 2.125 3.100 2.800 2.850 2.950 2.700 2.750	12/14/2018 08/28/2017 04/26/2018 04/26/2018 01/30/2019 04/26/2018 04/26/2018 04/26/2018	513 3,634,560 500,310 492,600 741,900 491,790 488,350 488,350	07/17/2022 12/14/2022 01/23/2023 01/29/2023 02/21/2023 03/15/2023	1 40 77 227 267 273 296 318	0.050 1.760 3.083 3.145 3.140 3.325 3.225 3.225 3.243	513 3,580,935 500,240 502,325 753,743 502,495 501,005 502,075 500,725 745,778	313379Q69 713448CX4 92826CAC6 90331HNL3 06406RAE7 74005PBF0 084670BR8	26467 26580 26584 26737 26575 26581 26576	51 3,576,34 500,01 499,01 748,51 498,71 498,05 498,02 496,86 747,27 1,796,76



Treasurer's Report

04/30/2022

eneral Operating Reserve

suer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Valu
/almart, Inc.	USBGC	500,000	3.400	02/07/2019	510,960	06/26/2023	421	2.864	505,430	931142EK5	26758	502,881
ontgomery Water Wor	USBGC	2,145,000	1.799	04/17/2020	2,200,234	09/01/2023	488	1.020	2,127,518	613105KV6	26985	2,166,839
izer Inc	USBGC	500,000	3,200	01/30/2019	506,250	09/15/2023	502	2,908	503,280	717081EN9	26738	501,854
onolulu City and Co	USBGC	1,770,000	2.141	04/17/2020	1,837,189	10/01/2023	518	1.020	1,753,645	4386705V9	26983	1,797,545
tibank NA	USBGC	500,000	3.650	02/07/2019	507,490	01/23/2024	632	3.319	504,040	17325FAS7	26756	502,609
Morgan	USBGC	500,000	3,875	02/07/2019	515,120	02/01/2024	641	3.535	506,905	46625HJT8	26757	505,310
Bank, N.A.	USBGC	440,000	3.375	10/31/2019	462,862	02/05/2024	645	2.093	441,681	91159HHV5	26906	449,449
Morgan	USBGC	1,000,000	1.514	05/27/2020	1,006,120	06/01/2024	762	1.356	984,110	46647PBQ8	27007	1,003,179
st Side Union High	USBGC	565,000	0.820	10/29/2020	565,000	08/01/2024	823	0.820	537,756	275282PR6	27107	565,000
onolulu City and Co	USBGC	1,500,000	1.832	04/13/2020	1,522,710	08/01/2024	823	1.058	1,455,585	438687KT1	26980	1,511,883
lifornia State Uni	USBGC	250,000	0.685	09/17/2020	250,000	11/01/2024	915	0.665	234,463	13077DMK5	27072	250,000
ederal Home Loan Ba	USBGC	1,820,000	2.750	03/25/2020	1,981,288	12/13/2024	957	0.830	1,815,250	3130A3GE8	26962	1,909,478
S Bank, N.A.	USBGC	500,000	2.800	02/07/2020	522,560	01/27/2025	1,002	1.846	494,170	90331HMS9	26951	512,427
W Grainger Inc.	USBGC	500,000	1.850	04/30/2020	516,000	02/15/2025	1,021	1.161	480,405	384802AE4	27000	509,312
W Grainger Inc.	USBGC	500,000	1,850	05/21/2020	514,500	02/15/2025	1,021	1.217	480,405	384802AE4	27005	508,543
emphis Center City	USBGC	500,000	2.948	11/23/2020	550,395	04/01/2025	1,066	0.600	495,720	586145F74	27114	533,747
Isa County OK Ind.	USBGC	1,000,000	1.500	05/26/2020	1,016,450	04/01/2025	1,066	1.038	953,950	899559QD3	27006	1,009,898
ty of Huntsville A	USBGC	515,000	2.750	11/06/2020	560,351	05/01/2025	1,096	0.750	511,586	447025A56	27112	545,328
neywell Internatio	USBGC	1,000,000	1.350	06/03/2020	1,023,560	06/01/2025	1,127	0.866	946,430	438516CB0	27008	1,014,545
unty of Jasper IA	USBGC	420,000	2,350	06/11/2020	443,558	06/01/2025	1,127	1.299	409,517	471376FJ7	27011	434,608
ecision Castparts	USBGC	1,500,000	3.250	06/25/2020	1,667,985	06/15/2025	1,141	1.033	1,503,615	740189AM7	27017	1,605,483
Morgan	USBGC	750,000	1.050	06/23/2020	750,000	06/23/2025	1,149	1.050	686,070	48128GU40	27024	750,000
y of Baltimore	USBGC	500,000	0.845	12/02/2020	500,000	07/01/2025	1,157	0.845	462,830	059231X39	27126	500,000
sconsin Dept Trans	USBGC	500,000	0.774	07/30/2020	500,000	07/01/2025	1,157	0.774	462,060	977123X78	27042	500,000
et Life Glob Fundin	USBGC	4,000,000	0,950	03/04/2022	3,847,200	07/02/2025	1,158	2.145	3,692,800	59217GEJ4	27376	3,854,470
ast Side Union High	USBGC	815,000	0,940	10/29/2020	815,000	08/01/2025	1,188	0.940	758,977	275282PS4	27108	815,000
deral National Mtg	USBGC	1,000,000	0.600	08/18/2020	1,000,000	08/18/2025	1,205	0.600	927,530	3136G4G72	27056	1,000,000
deral Agricultural	USBGC	1,000,000	0,570	09/17/2020	1,000,000	09/17/2025	1,235	0.570	922,260	31422BV23	27071	1,000,000
deral Farm Credit	USBGC	2,000,000	0,530	09/29/2020	2,000,000	09/29/2025	1,247	0.530	1,840,280	3133EMBH4	27079	2,000,000
deral Farm Credit	USBGC	1,720,000	0.530	09/29/2020	1,720,000	09/29/2025	1,247	0.530	1,580,026	3133EMBJ0	27080	1,720,000
deral Home Loan Ba	USBGC	1,000,000	0.520	09/29/2020	1,000,000	09/29/2025	1,247	0.520	927,510	3130AKAZ9	27081	1,000,000
deral Home Loan Mt	USBGC	500,000	0.540	10/27/2020	500,000	10/27/2025	1,275	0.540	459,130	3134GW4Z6	27104	500,000
nk of America Corp	USBGC	1,000,000	0,650	11/25/2020	1,000,000	11/25/2025	1,304	0.798	889,200	06048WK41	27122	1,000,000
deral Farm Credit	USBGC	500,000	0,560	12/01/2020	500,000	12/01/2025	1,310	0.560	459,140	3133EMJC7	27124	500,000
ardian Life	USBGC	1,520,000	0.875	05/05/2021	1,507,384	12/10/2025	1,319	1.060	1,379,750	40139LBC6	27223	1,510,098
Morgan	USBGC	250,000	0.825	12/22/2020	250,000	12/22/2025	1,331	0.825	221,473	48128GY53	27139	250,000
deral National Mtg	USBGC	500,000	0.640	12/30/2020	501,000	12/30/2025	1,339	0.599		3135G06Q1	27141	500,733
ple Inc.	USBGC	500,000	0.700	02/17/2021	500,000	02/08/2026	1,379	0.699		037833EB2	27169	500,000
Morgan	USBGC	1,000,000	0,500	02/17/2021	1,000,000	02/17/2026	1,388	0.500		46632FRV9	27172	1,000,000
arles Schwab Corp	USBGC	630,000	0.900	04/30/2021	625,407	03/11/2026	1,410	1.054		808513BF1	27220	626,354
deral Home Loan Ba	USBGC	1,000,000	0.790	03/25/2021	997,500	03/16/2026	1,415	0.841	926,800	3130ALEL4	27203	998,053
deral Home Loan Ba	USBGC	1,000,000	1.010	03/30/2021	1,000,000	03/30/2026	1,429	1.010	000 600	3130ALTT1	27213	1,000,000



Treasurer's Report

04/30/2022

Jeneral Operating Reserve

isuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
regon State Dept o	USBGC	500,000	1.119	04/27/2021	500,000	04/01/2026	1,431	1.119			27216	500,000
ederal Home Loan Ba	USBGC	500,000	0.625	04/21/2021	500,000	04/21/2026	1,451	1.084	470,320	3130ALXR0	27215	500,000
nited Health Group	USBGC	550,000	1.150	06/28/2021	551,826	05/15/2026	1,475	1.079	501,419	91324PEC2	27232	551,511
ank of America Corp	USBGC	1,108,000	1.250	05/28/2021	1,108,000	05/28/2026	1,488	1.250	991,594	06048WM31	27226	1,108,000
ank of America Corp	USBGC	1,250,000	1.200	06/28/2021	1,250,000	06/25/2026	1,516	1.199	1,105,038	06048WM64	27228	1,250,000
tate University of	USBGC	370,000	1,591	12/02/2021	370,000	07/01/2026	1,522	1.590	341,392	65000BGU6	27329	370,000
lassMutual Global Fu	USBGC	1,000,000	1.200	08/02/2021	1,007,220	07/16/2026	1,537	1.050	906,900	57629WDE7	27249	1,006,131
lome Depot Inc.	USBGC	415,000	2.125	04/12/2022	400,052	09/15/2026	1,598	3.000	393,814	437076BN1	27387	400,230
ohn Deere Capital C	USBGC	100,000	1.300	10/18/2021	100,313	10/13/2026	1,626	1.235	91,268	24422EVW6	27297	100,279
SMC Arizona Corp.	USBGC	850,000	1.750	12/08/2021	857,242	10/25/2026	1,638	1.567	779,246	872898AA9	27333	856,653
ublic Storage	USBGC	1,585,000	1,500	11/15/2021	1,585,745	11/09/2026	1,653	1.490	1,449,118	74460DAG4	27308	1,585,676
ublic Storage	USBGC	365,000	1.500	11/19/2021	363,799	11/09/2026	1,653	1.569	333,709	74460DAG4	27312	363,908
ublic Storage	USBGC	1,064,000	1.500	12/08/2021	1,065,234	11/09/2026	1,653	1.475	972,783	74460DAG4	27339	1,065,135
P Morgan	USBGC	1,200,000	1.500	11/30/2021	1,200,000	11/30/2026	1,674	1.500	1,124,292	48130UZH1	27313	1,200,000
ederal Home Loan Ba	USBGC	150,000	0,800	12/29/2021	150,000	12/29/2026	1,703	1.509	141,036	3130AQER0	27345	150,000
ohn Deere Capital C	USBGC	438,000	1.700	01/14/2022	437,352	01/11/2027	1,716	1.731	402,956	24422EWA3	27363	437,390
ederal Home Loan Ba	USBGC	500,000	3.375	04/28/2022	500,000	01/28/2027	1,733	3.375	497,295	3130ARP62	27398	500,000
	Fund Total and Average	\$ 83,145,253	1.289		\$ 83,757,346		763	1.122	\$ 80,098,678			\$ 83,401,214
	GRAND TOTALS:	\$ 177,503,132	1.134		\$ 177,955,982		705	1.096	\$ 171,428,851.			\$ 177,790,103

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

Irrent Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 04/30/2022

Callable Dates:

valiable	Dates.					Inv #		
v #			Inv #			27203	FHLB	Quarterly
3646	USB	6/23/2023	27080	FFCB	Anytime	27213	FHLB	Quarterly
3848	WMT	1/11/2023	27081	FHLB	Anytime			
3906	USBANK	1/5/2024	27104	FHLMC	Annually starting 10/27/2022	27215	FHLB	4/21/2023
3947	USBANK	Anytime starting 12/27/2024	27110	CASMED	Anytime	27216	ORSGEN	Anytime
3951	USBANK	Anytime starting 12/27/2024	27113	MEMGEN	Anytime	27220	SCHW	2/11/2026
3980			27114	MEMGEN	Anytime	27225	BAC	Semi-annually starting 05/28/2022
	HON	Anytime	27124	FFCB	Anytime starting 12/1/2022	27226	BAC	Semi-annually starting 05/28/2022
3983	HON	Anytime	27125	BALGEN	Anytime	27227	BAC	Semi-annually starting 06/25/2022
3984	AZSHGR	Anytime	27126	BALGEN	Anytime	27228	BAC	Semi-annually starting 06/25/2022
7007	JPM	6/1/2023 and then starting on 5/1/2024	27137	FNMA	Annually starting 11/18/2022	27251	JPM	Annually starting 8/17/2023
7011	JAS	6/1/2024	27138	JPM	Quarterly starting 12/22/2023	27252	FHLB	Quarterly starting 8/17/2022
7024	JPM	Quarterly starting 6/23/2024	27139	JPM	Quarterly starting 12/22/2023	27255	BAC	Semi-annually starting 08/26/2022
7029	MAS	Anytime	27141	FNMA	Quarterly	27256	BAC	Semi-annually starting 08/26/2022
7041	WISTRN	Anytime	27149	TOY	1/20/2025 and 7/20/2025	27276	FHLB	Callable quarterly starting 9/28/2022
7042	WISTRN	Anytime	27164	FHLB	Anytime	27313	JPM	Callable quarterly starting 11/30/2022
7055	CASWTR	Anytime	27168	APPL	Anytime starting 1/8/2026	27329	NYSHGR	Anytime
7056	FNMA	Quarterly starting 8/18/2022	27169	APPL	Anytime starting 1/8/2026	27342	FHLB	12/29/2023
7058	PHOGEN	Anytime	27103	JPM		27343	FHLB	12/29/2023
7071	FAMC	Semi-annually	27172	JPM	Quarterly starting 2/17/2023	27345	FHLB	12/29/2023
7072	CASHGR	Anytime			Quarterly starting 2/17/2023	27364	FHLB	7/28/2023
7077	FFCB	Anytime	27178	LOUIS	Anytime	27365	FHLB	7/28/2023
7078	FFCB	Anytime	27195	FHLB	Quarterly	27366	FHLB	
7079	FFCB	Anytime	27200	FFCB	Anytime starting 3/9/2023			2/27/2023
		e e 🖌 normen	27201	FFCB	Anytime starting 3/9/2023	27398	FHLB	Quarterly starting 07/28/2022
								()



Treasurer's Report

04/30/2022

¡EO 2012 Construction Fund

ssuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Mark	et Value	CUSIP	Investment #	Car	rrying Val
.S. Treasury	USBT	912,000	0.175	01/05/2022	911,220	06/30/2022	60	0.177		910,960	912796R50	27354		911,73
	Fund Total and Average	\$ 912,000	0.175		\$ 911,220		60	0.178	\$	910,960			\$	911,7
eo 2012A Debt Se	ervice													
.S. Treasury	USBT	246,000	0.409	02/28/2022	245,658	06/30/2022	60	0.416		245,720	912796R50	27367		245,8
.S. Treasury	USBT	122,000	0.520	03/29/2022	121,836	06/30/2022	60	0.527		121,861	912796R50	27377		121,8
	Fund Total and Average	\$ 368,000	0.446		\$ 367,494		60	0.453	\$	367,581			\$	367,7
eo 2016A Debt Se	ervice													
S. Treasury	USBT	289,000	0.080	11/30/2021	288,873	06/16/2022	46	0.081		288,841	912796J42	27314		288,9
S. Treasury	USBT	289,000	0.200	12/30/2021	288,708	06/30/2022	60	0.202		288,671	912796R50	27351		288,9
S. Treasury	USBT	1,077,000	0.175	01/05/2022	1,076,079	06/30/2022	60	0.177	1	1,075,772	912796R50	27356		1,076,6
S. Treasury	USBT	580,000	0.410	02/28/2022	579,194	06/30/2022	60	0.416		579,339	912796R50	27368		579,6
S. Treasury	USBT	289,000	0.519	03/29/2022	288,612	06/30/2022	60	0.527		288,671	912796R50	27378		288,7
ederal Home Loan Ba	USBT	290,000	0.600	04/27/2022	289,686	07/01/2022	61	0.609		289,565	313385YU4	27389		289,7
	Fund Total and Average	\$ 2,814,000	0.295		\$ 2,811,152		59	0.300	\$	2,810,859			\$	2,812,6
eothermal Specia		\$ 2,814,000	0.295		\$ 2,811,152		59	0.300	\$	2,810,859			\$	2,812,6
		\$ 2,814,000 5,000	0.295		\$ 2,811,152 5,000		59 1	0.300	\$		SYS70015	70015	\$	
rst American Govt.	al Reserve			02/16/2021		11/07/2025				5,000	SYS70015 3135G06G3	70015 27167	\$	5,0
ieothermal Specia Irst American Govt. ederal National Mtg	al Reserve	5,000	0.002	02/16/2021	5,000	11/07/2025	1	0.002	1	5,000				2,812,6 5,0 1,497,0 1,502,0
rst American Govt. aderal National Mtg	al Reserve USBGC USBGC Fund Total and Average	5,000	0.002 0.500	02/16/2021	5,000 1,497,796	11/07/2025	1 1,286	0.002 0.460	1	5,000 1,372,948				5,0 1,497,0
rst American Govt.	al Reserve USBGC USBGC Fund Total and Average	5,000	0.002 0.500	02/16/2021	5,000 1,497,796	11/07/2025	1 1,286	0.002 0.460	1	5,000 1,372,948 1,377,948				5,0 1,497,0
rst American Govt. ederal National Mtg eo Decommission cal Agency Investm	al Reserve USBGC USBGC Fund Total and Average hing Reserve	5,000 1,495,000 \$ 1,500,000	0.002 0.500 0.498	02/16/2021	5,000 1,497,796 \$ 1,502,796	11/07/2025	1 1,286 1282	0.002 0.460 0.458	1	5,000 1,372,948 1,377,948 419,809	3135G06G3	27167		5,(1,497,(1,502,(419,8
eo Decommission cal Agency Investm rst American Govt.	al Reserve USBGC USBGC Fund Total and Average hing Reserve LAIF	5,000 1,495,000 \$ 1,500,000 419,809	0.002 0.500 0.498 0.315	02/16/2021	5,000 1,497,796 \$ 1,502,796 419,809	05/15/2022	1 1,286 1282 1	0.002 0.460 0.458 0.315	\$	5,000 1,372,948 1,377,948 419,809 135,500	3135G06G3 SYS70027	27167		5,(1,497,(1,502, (
eo Decommission cal Agency Investm ist American Govt.	al Reserve USBGC USBGC Fund Total and Average hing Reserve LAIF USBGC	5,000 1,495,000 \$ 1,500,000 419,809 135,500	0.002 0.500 0.498 0.315 0.002		5,000 1,497,796 \$ 1,502,796 419,809 135,500		1 1,286 1282 1 1	0.002 0.460 0.458 0.315 0.002	\$	5,000 1,372,948 1,377,948 419,809 135,500 1,000,390	3135G06G3 SYS70027 SYS70034	27167 70027 70034		5,(1,497,(1,502, 419,8 135,5
st American Govt. deral National Mtg eo Decommission cal Agency Investm st American Govt. iversity of Califo ells Fargo Bank	al Reserve USBGC USBGC Fund Total and Average hing Reserve LAIF USBGC USBGC	5,000 1,495,000 \$ 1,500,000 419,809 135,500 1,000,000	0.002 0.500 0.498 0.315 0.002 2.312	04/30/2020	5,000 1,497,796 \$ 1,502,796 419,809 135,500 1,024,800	05/15/2022	1 1,286 1282 1 1 1 1	0.002 0.460 0.458 0.315 0.002 1.080	\$	5,000 1,372,948 1,377,948 419,809 135,500 1,000,390 252,018	3135G06G3 SYS70027 SYS70034 91412G2T1	27167 70027 70034 27001		5,(1,497,(1,502, 419,8 135,5 1,000,4
eo Decommission cal Agency Investm st American Govt. iiversity of Califo eills Fargo Bank eat North Bank	al Reserve USBGC USBGC Fund Total and Average ning Reserve LAIF USBGC USBGC USBGC USBGC	5,000 1,495,000 \$ 1,500,000 419,809 135,500 1,000,000 250,000	0.002 0.500 0.498 0.315 0.002 2.312 3.150	04/30/2020 08/30/2018	5,000 1,497,796 \$ 1,502,796 419,809 135,500 1,024,800 250,000	05/15/2022 08/30/2022	1 1,286 1282 1 1 1 14 121	0.002 0.460 0.458 0.315 0.002 1.080 3.154	\$	5,000 1,372,948 1,377,948 419,809 135,500 1,000,390 252,018 251,945	3135G06G3 SYS70027 SYS70034 91412G2T1 949763TL0A	27167 70027 70034 27001 30311		5,1 1,497,1 1,502, 419,8 135,5 1,000,4 250,0 250,0
eo Decommission cal Agency Investm st American Govt. iversity of Califo ells Fargo Bank eat North Bank scover Bank	al Reserve USBGC USBGC Fund Total and Average hing Reserve LAIF USBGC USBGC USBGC USBGC USBGC	5,000 1,495,000 \$ 1,500,000 419,809 135,500 1,000,000 250,000 250,000	0.002 0.500 0.498 0.315 0.002 2.312 3.150 3.050	04/30/2020 08/30/2018 08/31/2018	5,000 1,497,796 \$ 1,502,796 419,809 135,500 1,024,800 250,000 250,000	05/15/2022 08/30/2022 08/31/2022	1 1,286 1282 1 1 1 1 14 121 122	0.002 0.460 0.458 0.315 0.002 1.080 3.154 3.051	\$	5,000 1,372,948 1,377,948 419,809 135,500 1,000,390 252,018 251,945 252,140	3135G06G3 SYS70027 SYS70034 91412G2T1 949763TL0A 39103QAF3A	27167 70027 70034 27001 30311 30310		5, 1,497, 1,502, 419,8 135,5 1,000,4 250,0 250,0
eo Decommission eo Decommission eal Agency Investm rst American Govt. niversity of Califo ells Fargo Bank reat North Bank scover Bank hn Deere Capital C	al Reserve USBGC USBGC Fund Total and Average hing Reserve LAIF USBGC USBGC USBGC USBGC USBGC USBGC	5,000 1,495,000 \$ 1,500,000 419,809 135,500 1,000,000 250,000 250,000 250,000	0.002 0.500 0.498 0.315 0.002 2.312 3.150 3.050 3.150	04/30/2020 08/30/2018 08/31/2018 09/06/2018	5,000 1,497,796 \$ 1,502,796 419,809 135,500 1,024,800 250,000 250,000 250,000	05/15/2022 08/30/2022 08/31/2022 09/06/2022	1 1,286 1282 1 1 1 1 1 121 122 128	0.002 0.460 0.458 0.315 0.002 1.080 3.154 3.051 3.152	\$	5,000 1,372,948 1,377,948 419,809 135,500 1,000,390 252,018 252,018 252,140 752,348	3135G06G3 SYS70027 SYS70034 91412G2T1 949763TL0A 39103QAF3A 254673TM8A	27167 70027 70034 27001 30311 30310 30313		5, 1,497, 1,502, 419, 1,502, 250, 250, 250, 748,
eo Decommission eo Decommission eal Agency Investm rst American Govt. niversity of Califo ells Fargo Bank reat North Bank scover Bank hn Deere Capital C ank of NY Mellon Co	al Reserve USBGC USBGC Fund Total and Average hing Reserve LAIF USBGC USBGC USBGC USBGC USBGC USBGC USBGC USBGC	5,000 1,495,000 \$ 1,500,000 \$ 1,500,000 135,500 1,000,000 250,000 250,000 250,000 750,000	0.002 0.500 0.498 0.315 0.002 2.312 3.150 3.050 3.150 2.800	04/30/2020 08/30/2018 08/31/2018 09/06/2018 03/15/2018	5,000 1,497,796 \$ 1,502,796 \$ 1,502,796 419,809 135,500 1,024,800 250,000 250,000 250,000 739,748	05/15/2022 08/30/2022 08/31/2022 09/06/2022 01/27/2023	1 1,286 1282 1 1 1 1 1 1 22 128 271	0.002 0.460 0.458 0.315 0.002 1.080 3.154 3.051 3.152 3.104	\$	5,000 1,372,948 1,377,948 419,809 135,500 1,000,390 252,018 252,140 752,348 752,743	3135G06G3 SYS70027 SYS70034 91412G2T1 949763TL0A 39103QAF3A 254673TM8A 24422ERT8	27167 70027 70034 27001 30311 30310 30313 26550		5, 1,497, 1,502, 419, 135, 1,000, 250, 250, 250, 250, 748, 748,
rst American Govt. ederal National Mtg eo Decommissior	al Reserve USBGC USBGC Fund Total and Average hing Reserve LAIF USBGC USBGC USBGC USBGC USBGC USBGC USBGC USBGC USBGC	5,000 1,495,000 \$ 1,500,000 \$ 1,500,000 135,500 1,000,000 250,000 250,000 250,000 750,000 750,000	0.002 0.500 0.498 0.315 0.002 2.312 3.150 3.050 3.150 2.800 2.950	04/30/2020 08/30/2018 08/31/2018 09/06/2018 03/15/2018 03/15/2018	5,000 1,497,796 \$ 1,502,796 \$ 1,502,796 419,809 135,500 1,024,800 250,000 250,000 250,000 739,748 740,610	05/15/2022 08/30/2022 08/31/2022 09/06/2022 01/27/2023 01/29/2023	1 1,286 1282 1 1 1 1 1 1 2 1 28 271 273	0.002 0.460 0.458 0.315 0.002 1.080 3.154 3.051 3.152 3.104 3.229	\$	5,000 1,372,948 1,377,948 419,809 135,500 1,000,390 252,018 251,945 252,140 752,348 753,743 351,297	3135G06G3 SYS70027 SYS70034 91412G2T1 949763TL0A 39103QAF3A 254673TM8A 24422ERT8 06406RAE7	27167 70027 70034 27001 30311 30310 30313 26550 26549		5,0 1,497,0 1,502, 0 419,8 135,5 1,000,4 250,0



Treasurer's Report

04/30/2022

eo Decommissioning Reserve

itibank NA acramento Suburban / W Grainger Inc. alifornia St HIth F ouston Airport Sys ashville Met Gov ast Side Union High uardian Life pple Inc. P Morgan ank of America Corp ank of America Corp	Trustee / Custodian USBGC USBGC USBGC USBGC USBGC USBGC USBGC	Stated Value 250,000 330,000 425,000 500,000 750,000 500,000	Rate 3.300 3.480 1.850 0.952	Date 09/07/2018 04/09/2020 04/30/2020	Price 250,000 349,473 438,600	Date 09/07/2023 11/01/2024	Maturity 494 915	Yield 3.301	Market Value 253,968	CUSIP 17312QS34A	30314	Carrying Va 250,0
/ W Grainger Inc. alifornia St Hlth F ouston Airport Sys ashville Met Gov ast Side Union High uardian Life pple Inc. ⁹ Morgan ank of America Corp	USBGC USBGC USBGC USBGC	425,000 500,000 750,000	1.850 0.952	04/30/2020		11/01/2024	015					0.40.0
alifornia St Hlth F bouston Airport Sys ashville Met Gov ast Side Union High uardian Life ople Inc. ⁹ Morgan ank of America Corp	USBGC USBGC USBGC	500,000 750,000	0.952		438,600		515	1.846	331,957	78607QAY1	26977	340,6
ouston Airport Sys ashville Met Gov ast Side Union High uardian Life ople Inc. Morgan ank of America Corp	USBGC USBGC	750,000		1110110000		02/15/2025	1,021	1.161	408,344	384802AE4	27002	432,9
ashville Met Gov ast Side Union High Jardian Life ople Inc. Morgan ank of America Corp	USBGC			11/04/2020	500,000	06/01/2025	1,127	0.952	463,160	13032UXM5	27111	500,0
ist Side Union High iardian Life iple Inc. Morgan ink of America Corp		500,000	1.372	10/20/2020	750,000	07/01/2025	1,157	1.372	706,013	442349EM4	27102	750,0
uardian Life ople Inc. P Morgan ank of America Corp	USBGC		0.610	02/18/2021	500,000	07/01/2025	1,157	0.610	461,895	592112UB0	27175	500,0
pple Inc. Morgan ank of America Corp		1,000,000	0.940	10/29/2020	1,000,000	08/01/2025	1,188	0.940	931,260	275282PS4	27109	1,000,0
Morgan Morgan ank of America Corp	USBGC	505,000	0.875	05/05/2021	500,809	12/10/2025	1,319	1,060	458,404	40139LBC6	27224	501,7
ank of America Corp	USBGC	1,000,000	0.700	02/08/2021	1,000,000	02/08/2026	1,379	0.700	913,300	037833EB2	27162	1,000,0
	USBGC	500,000	1.200	04/30/2021	500,000	04/30/2026	1,460	1.200	447,500	48128G3G3	27218	500,0
ank of America Corp	USBGC	750,000	1.200	06/28/2021	750,000	06/25/2026	1,516	1.199	663,023	06048WM64	27229	750,0
	USBGC	50,000	1.250	08/26/2021	50,000	08/26/2026	1,578	1.250	44,387	06048WN22	27258	50,0
ople Inc.	USBGC	1,895,000	2.050	01/12/2022	1,930,607	09/11/2026	1,594	1.629	1,795,475	037833DN7	27361	1,928,2
aterpillar Financia	USBGC	150,000	1.150	10/13/2021	149,450	09/14/2026	1,597	1,227	135,840	14913R2Q9	27289	149,5
MC Arizona Corp.	USBGC	1,375,000	1.750	12/08/2021	1,386,715	10/25/2026	1,638	1,567	1,260,545	872898AA9	27334	1,385,7
Iblic Storage	USBGC	765,000	1.500	11/15/2021	765,360	11/09/2026	1,653	1.490	699,417	74460DAG4	27309	765,3
ublic Storage	USBGC	1,722,000	1.500	12/08/2021	1,723,998	11/09/2026	1,653	1.475	1,574,373	74460DAG4	27340	1,723,8
w York City Genera	USBGC	585,000	2.040	04/30/2021	583,204	03/01/2030	2,861	2.078	506,066	64966QUX6	27219	583,4
deral Home Loan Ba	USBGC	1,000,000	1.000	02/10/2021	1,000,000	02/10/2031	3,207	1.360	862,480	3130AKX76	27163	1,000,0
deral Agricultural	USBGC	972,000	1.460	02/18/2021	972,000	02/18/2031	3,215	1.460	854,038	31422XAU6	27177	972,0
deral Agricultural	USBGC	600,000	1.460	07/30/2021	598,800	02/18/2031	3,215	1,482	527,184	31422XAU6	27246	598,8
ederal Home Loan Ba	USBGC	2,000,000	1.740	07/29/2021	2,006,440	07/29/2031	3,376	1.704	1,749,200	3130AN7G9	27245	2,005,9
arin Community Coll	USBGC	500,000	1.710	09/14/2021	506,610	08/01/2031	3,379	1.565	425,515	56781RKZ9	27272	506,1
ounty of Bexar TX	USBGC	385,000	2.134	09/23/2021	385,000	08/15/2031	3,393	2.134	330,507	088518PA7	27274	385,0
ounty of Bexar TX	USBGC	250,000	2.134	09/23/2021	250,000	08/15/2031	3,393	2.134	214,615	088518NH4	27275	250,0
ederal Farm Credit	USBGC	2,500,000	1.800	01/11/2022	2,445,000	01/05/2032	3,536	2.044	2,184,250	3133ENJZ4	27360	2,446,6
	Fund Total and Average	\$ 26,054,309	1.756		\$ 26,143,682		1838	1.623	\$ 24,024,838			\$ 26,088,2
eo 2012A DSR Acco	ount											
S. Treasury	USBT	1,622,000	0.080	11/30/2021	1,621,286	06/16/2022	46	0.081	1,621,108	912796J42	27319	1,621,8
	Fund Total and Average	\$ 1,622,000	0.080		\$ 1,621,286		46	0.081	\$ 1,621,108			\$ 1,621,8
	GRAND TOTALS:	\$ 33,270,309	1.437		\$ 33,357,630		1507	1.331	\$ 31,113,294.			\$ 33,304,2
estments with less than 6	aturity is shown based on a 365 6 6 months to maturity use an appr ad on prices from Trustee/ Custoo	oximate method, all ot	ners use an e	xact method.		2						
# 77 SCRWTR Any	Inv #			inv # 27218	JPM Annual	v starting 4/30/2		Inv # 27245	FHLB An	vtime starting 7/9/	2222	

v #			Inv #			inv #			Inv #		
i977	SCRWTR	Anytime	27162	APPL	Anytime starting 1/8/2026	27218	JPM	Annually starting 4/30/2023	27245	FHLB	Anytime starting 7/9/2022
'001	UNVHGR	Anytime	27163	FHLB	Quarterly	27219	NYC	Anytime	27246	FAMC	Semi-annually
'111	CASMED	Anytime	27177	FAMC	Semi-annually	27229	BAC	Semi-annually starting 6/25/2022	27258	BAC	Semi-annually starting 8/26/2022
								, ,	27360	FFCB	Anytime starting 1/5/2027



Treasurer's Report

04/30/2022

ap Facilities 2019A Debt Svc

ssuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	hased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Ма	rket Value	CUSIP	Investment #	Ca	arrying Value
S Bank Trust	USBT	1,094	0.010		1,094		1	0.010		1,094	SYS79017	79017		1,094
.S. Treasury	USBT	423,000	0.045	08/27/2021	422,830	07/14/2022	74	0.045		422,327	912796K57	27265		422,961
S. Treasury	USBT	421,000	0.040	09/28/2021	420,865	07/14/2022	74	0.040		420,331	912796K57	27282		420,965
S. Treasury	USBT	421,000	0.090	11/30/2021	420,762	07/14/2022	74	0.091		420,331	912796K57	27318		420,922
.S. Treasury	USBT	422,000	0.150	12/29/2021	421,654	07/14/2022	74	0.152		421,329	912796K57	27346		421,870
.S. Treasury	USBT	921,000	0.540	02/28/2022	918,928	07/28/2022	88	0.548		919,167	912796\$59	27371		919,784
S. Treasury	USBT	450,000	0.660	03/29/2022	449,002	07/28/2022	88	0.670		449,105	912796\$59	27381		449,274
S. Treasury	USBT	422,000	0,789	04/27/2022	 421,148	07/28/2022	88	0.802		421,160	912796\$59	27393		421,185
	Fund Total and Average	\$ 3,481,094	0.363		\$ 3,476,283		81	0.369	\$	3,474,844			\$	3,478,055
	GRAND TOTALS:	\$ 3,481,094	0.363		\$ 3,476,283		81	0.369	\$	3,474,844.			\$	3,478,055

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

Irrent Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 04/30/2022



Treasurer's Report

04/30/2022

apital Dev. Reserve Hydro

ssuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
ocal Agency Investm	LAIF	7,556,705	0.315		7,556,705		1	0.315	7,556,705	SYS70028	70028	7,556,705
irst American Govt.	USBGC	7,673	0.002		7,673		1	0.002		SYS70031	70031	7,673
ublic Storage	USBGC	500,000	2,370	03/14/2018	485,770	09/15/2022	137	3.051	500,345	74460DAB5	26546	498,824
ïsa Inc.	USBGC	500,000	2.800	03/14/2018	494,470	12/14/2022	227	3.051	502,325	92826CAC6	26547	499,279
oyota Motor Credit	USBGC	500,000	2,700	06/13/2018	489,100	01/11/2023	255	3,215	501,160	89236TEL5	26619	498,346
nited Parcel Servic	USBGC	500,000	2.500	06/13/2018	484,900	04/01/2023	335	3.182	500,725	911312BK1	26620	497,116
olgate-Palmolive Co	USBGC	550,000	2,100	08/09/2018	528,660	05/01/2023	365	2,985	548,543	19416QEC0	26652	545,486
Paul Getty Trust	USBGC	1,000,000	0.391	01/28/2021	1,000,000	01/01/2024	610	0.401	958,410	374288AB4	27161	1,000,000
let Life Glob Fundin	USBGC	209,000	0.700	04/12/2022	199,867	04/05/2024	705	2,988	198,036	58989V2C7	27385	200,110
let Life Glob Fundin	USBGC	419,000	0.700	04/12/2022	400,690	04/05/2024	705	2,988	397,019	58989V2C7	27386	401,178
ashville Met Gov	USBGC	250,000	1.030	12/17/2020	250,000	08/01/2024	823	1.029	237,250	592090GB4	27134	250,000
aliforina Infra & E	USBGC	100,000	0.645	12/17/2020	100,000	10/01/2024	884	0.683	94,429	13034AL57	27135	100,000
almart, Inc.	USBGC	500,000	2.650	02/07/2020	520,975	12/15/2024	959	1.744	496,190	931142DV2	26950	511,327
ank of NY Mellon Co	USBGC	545,000	1.600	04/30/2021	561,197	04/24/2025	1,089	0.839	517,031	06406RAN7	27221	557,120
ederal Agricultural	USBGC	500,000	0.675	05/19/2020	500,000	05/19/2025	1,114	0.675	466,480	31422BA26	27004	500,000
ashville Met Gov	USBGC	250,000	1.230	12/17/2020	250,000	08/01/2025	1,188	1.229	232,540	592090GC2	27133	250,000
ty of El Paso TX	USBGC	500,000	4.346	12/07/2020	553,420	08/15/2025	1,202	1.950	509,325	283734TC5	27131	537,470
aliforina Infra & E	USBGC	130,000	0.765	12/17/2020	130,000	10/01/2025	1,249	0.765	119,989	13034AL65	27132	130,000
ank of America Corp	USBGC	1,000,000	0.650	11/25/2020	1,000,000	11/25/2025	1,304	0,798	889,200	06048WK41	27121	1,000,000
ederal National Mtg	USBGC	500,000	0.650	12/17/2020	500,850	12/10/2025	1,319	0.615	461,060	3135G06J7	27136	500,616
P Morgan	USBGC	500,000	0.825	12/22/2020	500,000	12/22/2025	1,331	0.825	442,945	48128GY53	27140	500,000
ederal National Mtg	USBGC	500,000	0.640	01/06/2021	501,550	12/30/2025	1,339	0.576	455,990	3135G06Q1	27148	501,140
ederal Home Loan Ba	USBGC	500,000	0.520	02/12/2021	499,750	02/12/2026	1,383	0.530	453,125	3130AKWA0	27165	499,811
ederal Home Loan Ba	USBGC	500,000	0,500	02/25/2021	500,000	02/25/2026	1,396	0.500	455,670	3130AKXX9	27181	500,000
ederal Home Loan Ba	USBGC	500,000	0.625	04/21/2021	500,000	04/21/2026	1,451	1.084	470,320	3130ALXR0	27214	500,000
nited Health Group	USBGC	500,000	1.150	06/28/2021	501,660	05/15/2026	1,475	1.082	455,835	91324PEC2	27231	501,374
ederal Home Loan Ba	USBGC	500,000	0.875	08/17/2021	500,000	08/17/2026	1,569	0.875	459,830	3130ANGX2	27253	500,000
ederal Home Loan Ba	USBGC	500,000	1.050	08/24/2021	500,000	08/24/2026	1,576	0.967	460,175	3130ANFT2	27254	500,000
ank of America Corp	USBGC	50,000	1.250	08/26/2021	50,000	08/26/2026	1,578	1.250	44,387	06048WN22	27257	50,000
SMC Arizona Corp.	USBGC	200,000	1.750	12/08/2021	201,704	10/25/2026	1,638	1.567	183,352	872898AA9	27332	201,565
ublic Storage	USBGC	250,000	1.500	12/08/2021	250,290	11/09/2026	1,653	1.475	228,568	74460DAG4	27338	250,267
ederal Home Loan Ba	USBGC	500,000	0.800	12/29/2021	500,000	12/29/2026	1,703	1.509	470,120	3130AQER0	27344	500,000
	Fund Total and Average	\$ 21,017,378	0.970		\$ 21,019,231		673	1.033	\$ 20,274,752			\$ 21,045,407
ydro Initial Faciliti	ies											
S. Treasury	USBT	4,240,000	0.175	01/05/2022	4,236,372	06/30/2022	60	0.177	4,235,166	912796R50	27355	4,238,763
	Fund Total and Average	\$ 4,240,000	0.175		\$ 4,236,372		60	0.178	\$ 4,235,166			\$ 4,238,763



Treasurer's Report

04/30/2022

				0 11 0 0 1 2 0								
lydro Debt Service	e Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
		Stated Value		Date	File	Date	Maturity	Tiere	Market value	0001	investment #	Carrying value
lydro Debt Service	9											
ederal Home Loan Ba	USBT	102,000	0.600	04/27/2022	101,890	07/01/2022	61	0.608	101,847	313385YU4	27390	101,896
	Fund Total and Average	\$ 102,000	0.600		\$ 101,890		61	0.609	\$ 101,847			\$ 101,896
lydro 2018A Debt	Service											
.S. Treasury	USBT	1,146,000	0.080	11/30/2021	1,145,496	06/16/2022	46	0.081	1 145 370	912796J42	27316	1,145,883
.S. Treasury	USBT	1,140,000	0.200	12/30/2021	1,145,840	06/30/2022	60	0.202		912796R50	27352	1,146,618
.S. Treasury	USBT	3,638,000	0.175	01/05/2022	3,634,887	06/30/2022	60	0.177		912796R50	27358	3,636,939
S. Treasury	USBT	2,295,000	0.409	02/28/2022	2,291,811	06/30/2022	60	0.416		912796R50	27369	2,293,432
.S. Treasury	USBT	1,147,000	0.519	03/29/2022	1,145,459	06/30/2022	60	0.527		912796R50	27379	1,146,006
ederal Home Loan Ba	USBT	1,147,000	0.599	04/27/2022	1,145,757	07/01/2022	61	0.608		313385YU4	27391	1,145,834
	Fund Total and Average	\$ 10,520,000	0.303		\$ 10,509,250		59	0.307	\$ 10,508,271			\$ 10,514,712
lydro 2019A Debt	Service											
.S. Treasury	USBT	813,000	0.080	11/30/2021	812,642	06/16/2022	46	0.081	812,553	912796J42	27317	812,917
.S. Treasury	USBT	815,000	0.200	12/30/2021	814,176	06/30/2022	60	0.202	814,071	912796R50	27353	814,728
.S. Treasury	USBT	2,699,000	0.175	01/05/2022	2,696,691	06/30/2022	60	0.177	2,695,923	912796R50	27359	2,698,213
S. Treasury	USBT	1,629,000	0.410	02/28/2022	1,626,737	06/30/2022	60	0.416	1,627,143	912796R50	27370	1,627,887
.S. Treasury	USBT	844,000	0.519	03/29/2022	842,866	06/30/2022	60	0.527	843,038	912796R50	27380	843,269
ederal Home Loan Ba	USBT	814,000	0.599	04/27/2022	813,118	07/01/2022	61	0.608	812,779	313385YU4	27392	813,172
	Fund Total and Average	\$ 7,614,000	0.301		\$ 7,606,230		59	0.306	\$ 7,605,507			\$ 7,610,186
lydro 2022A Debt	Service											
S. Treasury	USBT	27,000	0.544	04/28/2022	26,974	06/30/2022	60	0.553	26,969	912796R50	27397	26,975
	Fund Total and Average	\$ 27,000	0.545		\$ 26,974		60	0,553	\$ 26,969			\$ 26,975
ydro Special Rese	erve											
irst American Govt.	USBGC	5,000	0.002		5,000		1	0.002	5,000	SYS70016	70016	5,000
ederal National Mtg	USBGC	1,495,000	0.500	02/16/2021	1,497,796	11/07/2025	1,286	0.460	1,372,948	3135G06G3	27166	1,497,081
	Fund Total and Average	\$ 1,500,000	0.498		\$ 1,502,796		1282	0.458	\$ 1,377,948			\$ 1,502,081
ydro 2012 DSRA												
.S. Treasury	USBT	1,875,000	1.750	04/27/2022	1,843,359	06/30/2024	791	2.551	1,834,575	9128286Z8	27388	1,843,519
·····		1,010,000			1,010,000			2.501	1,00-1,070		2.000	.,0-10,010



Treasurer's Report

04/30/2022

lydro 2012 DSRA

ssuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value CUSIP	Investment #	Carrying Value
	Fund Total and Average	\$ 1,875,000	1.750		\$ 1,843,359		791	2.551	\$ 1,834,575		\$ 1,843,519
	GRAND TOTALS:	\$ 46,895,378	0.654		\$ 46,846,102		403	0.715	\$ 45,965,035.		\$ 46,883,539

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

Irrent Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 04/30/2022

Callable Dates:

nv #		
26950	WMT	Anytime starting 10/15/2024
27004	FAMCA	Semi-annually starting 5/19/2022
27131	ELPASO	Callable annually starting 8/15/2023
27132	FFCB	Anytime
?7135	CASDEV	Anytime
27136	FNMA	Quarterly
?7140	JPM	Quarterly starting 12/22/2023
27161	JPGETY	Anytime starting 10/1/2023
27165	FHLB	Anytime
27214	FHLB	4/21/2023
27221	BK	3/24/2025
?7253	FHLB	Quarterly starting 8/17/2022
?7254	FHLB	Monthly
?7257	BAC	Semi-annually starting 8/26/2022
?7344	FHLB	12/29/2023



Treasurer's Report

04/30/2022

EC GHG Auction Acct

ssuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Equiv Yield	Ma	arket Value	CUSIP	Investment #	Carr	rying Value
ocal Agency Investm		461,113	0.315		461,113		1	0.315		461,113	SYS70046	70046		461,113
	Fund Total and Average	\$ 461,113	0.315		\$ 461,113		1	0.315	\$	461,113			\$	461,113
EC Issue #1 2010	3 DS Fund													
S Bank Trust	USB	640	0.010		640		1	0.010		640	SYS79004	79004		640
S. Treasury	USBT	3,548,000	0.080	12/01/2021	3,546,604	05/26/2022	25	0.081		3,547,219	912796Q36	27326	1	3,547,802
S. Treasury	USBT	130,000	0.080	12/29/2021	129,957	05/26/2022	25	0.081		129,971	912796Q36	27347		129,993
.S. Treasury	USBT	260,000	0.310	02/28/2022	259,794	05/31/2022	30	0.314		259,930	912796V30	27372		259,933
.S. Treasury	USBT	129,000	0.309	03/29/2022	128,930	05/31/2022	30	0.314		128,965	912796V30	27382		128,967
ederal Home Loan Ba	USBT	130,000	0.419	04/27/2022	129,947	06/01/2022	31	0.425		129,922	313385XN1	27394		129,953
	Fund Total and Average	\$ 4,197,640	0.112		\$ 4,195,872		26	0.114	\$	4,196,647			\$	4,197,288
EC Issue #2 2010	3 DS Fund													
S Bank Trust	USB	499	0.010		499		1	0.010		499	SYS79012	79012		499
.S. Treasury	USBT	4,165,000	0.080	12/01/2021	4,163,362	05/26/2022	25	0,081		4,164,084	912796Q36	27327	4	4,164,767
.S. Treasury	USBT	550,000	0.080	12/29/2021	549,819	05/26/2022	25	0.081		549,879	912796Q36	27348		549,969
.S. Treasury	USBT	1,100,000	0.309	02/28/2022	1,099,129	05/31/2022	30	0.314		1,099,703	912796V30	27373	ſ	1,099,716
.S. Treasury	USBT	549,000	0.309	03/29/2022	548,702	05/31/2022	30	0,314		548,852	912796V30	27383		548,858
ederal Home Loan Ba	USBT	550,000	0.419	04/27/2022	549,775	06/01/2022	31	0.426		549,670	313385XN1	27395		549,801
	Fund Total and Average	\$ 6,914,499	0.162		\$ 6,911,286		27	0.164	\$	6,912,687		_	\$	6,913,610
EC Issue#1 2017A	DS Fund													
S. Treasury	USBT	3,659,000	0.080	12/01/2021	3,657,561	05/26/2022	25	0.081		3,658,195	912796Q36	27328	(3,658,796
.S. Treasury	USBT	668,000	0.080	12/29/2021	667,780	05/26/2022	25	0.081		667,853	912796Q36	27349		667,963
.S. Treasury	USBT	1,334,000	0.309	02/28/2022	1,332,943	05/31/2022	30	0.314		1,333,640	912796V30	27374		1,333,655
.S. Treasury	USBT	674,000	0.309	03/29/2022	673,634	05/31/2022	30	0.314		673,818	912796V30	27384		673,826
ederal Home Loan Ba	USBT	667,000	0.420	04/27/2022	666,728	06/01/2022	31	0.426		666,600	313385XN1	27396		666,759
	Fund Total and Average	\$ 7,002,000	0.179		\$ 6,998,646		27	0.181	\$	7,000,106			\$	7,000,999
EC Issue #1 2010	DSR Fund													
S Bank Trust	USB	18,650	0.010		18,650		1	0.010		18,650	SYS79005	79005		18,650
.S. Treasury	USBT	63,000	0.080	12/29/2021	62,979	05/26/2022	25	0.081		62,986	912796Q36	27350		62,997
ederal Home Loan Ba	USB	4,100,000	2.125	08/28/2017	4,168,306	06/10/2022	40	1.760		4,106,806	313379Q69	26463	2	4,101,547



Treasurer's Report

04/30/2022

EC Issue #1 2010 DSR Fund

suer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Valu
ederal Farm Credit	USBT	4,430,000	0.840	03/02/2021	4,430,000	03/02/2026	1,401	0.840	4,085,479	3133EMSK9	27199	4,430,000
ederal Home Loan Ba	USBT	150,000	0.875	08/27/2021	150,528	06/12/2026	1,503	0.799	137,948	3130AN4T4	27270	150,453
	Fund Total and Average	\$ 9,270,650	1.358		\$ 9,339,298		714	1.195	\$ 8,920,589			\$ 9,272,624
EC lss#1 2010B B	ABS Subs Resv											
S Bank Trust	USB	1,843	0.010	07/01/2021	1,843		1	0.010	1,843	SYS79006	79006	1,843
.S. Treasury	USBT	2,369,000	0.080	11/30/2021	2,368,068	05/26/2022	25	0.081	2,368,479	912796Q36	27320	2,368,868
	Fund Total and Average	\$ 2,370,843	0.080		\$ 2,369,911		25	0.081	\$ 2,370,322			\$ 2,370,711
EC Issue #2 2010E	3 DSR BABS											
S Bank Trust	USB	1,295	0.010		1,295		1	0.010	1,295	SYS79013	79013	1,295
.S. Treasury	USBT	1,142,000	0.080	11/30/2021	1,141,551	05/26/2022	25	0.081	1,141,749	912796Q36	27321	1,141,937
	Fund Total and Average	\$ 1,143,295	0.080		\$ 1,142,846		25	0.081	\$ 1,143,044			\$ 1,143,232
EC O & M Reserve	9											
ocal Agency Investm		1,637,542	0.315		1,637,542		1	0.315	1,637,542	SYS70047	70047	1,637,542
rst American Govt.	USBGC	614,680	0.002		614,680		1	0.002	614,680	SYS70041	70041	614,680
aterpillar Financia	USBGC	465,000	3.250	02/03/2020	496,569	12/01/2024	945	1.776	466,428	14912L6G1	26952	481,892
ashville Met Gov	USBGC	500,000	0,610	02/18/2021	500,000	07/01/2025	1,157	0.610	461,895	592112UB0	27176	500,000
ederal National Mtg	USBGC	1,000,000	0.600	07/30/2020	1,001,000	07/29/2025	1,185	0.579	928,680	3136G4D75	27047	1,000,649
ederal National Mtg	USBGC	1,000,000	0.600	08/18/2020	1,000,000	08/18/2025	1,205	0.600	927,530	3136G4G72	27057	1,000,000
ederal Farm Credit	USBGC	750,000	0.530	09/29/2020	750,000	09/29/2025	1,247	0.530	690,105	3133EMBH4	27083	750,000
ederal Farm Credit	USBGC	670,000	0,530	09/29/2020	670,000	09/29/2025	1,247	0.530	615,475	3133EMBJ0	27084	670,000
pple Inc.	USBGC	500,000	0.700	02/17/2021	500,000	02/08/2026	1,379	0.699	456,650	037833EB2	27170	500,000
P Morgan	USBGC	500,000	1.200	04/30/2021	500,000	04/30/2026	1,460	1.200	447,500	48128G3G3	27222	500,000
assMutual Global Fu	USBGC	1,000,000	1.200	08/02/2021	1,007,220	07/16/2026	1,537	1.050	906,900	57629WDE7	27250	1,006,131
ank of America Corp	USBGC	100,000	1.250	08/26/2021	100,000	08/26/2026	1,578	1.250	88,773	06048WN22	27259	100,000
aterpillar Financia	USBGC	500,000	1.150	10/13/2021	498,165	09/14/2026	1,597	1,227	452,800	14913R2Q9	27290	498,370
SMC Arizona Corp.	USBGC	850,000	1.750	12/08/2021	857,242	10/25/2026	1,638	1.567	779,246	872898AA9	27335	856,653
ublic Storage	USBGC	515,000	1.500	11/15/2021	515,242	11/09/2026	1,653	1.490	470,849	74460DAG4	27310	515,220
iblic Storage	USBGC	1,064,000	1.500	12/08/2021	1,065,234	11/09/2026	1,653	1.475	972,783	74460DAG4	27341	1,065,135
	Fund Total and Average	\$ 11,666,222	0.946		\$ 11,712,894		1123	0.858	\$ 10,917,836			\$ 11,696,272

NAND IVIALS.

∂ 4**∂,**∪∠0,∠0∠

U.625

ə 4**3, I**3 I,000

100,0

৯ 4১,**0**53,043

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

Irrent Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 04/30/2022

allable Dates:

v #		
7047	FHLMC	Quarterly starting 7/29/2022
7057	FNMA	Quarterly starting 8/18/2022
7083	FFCB	Anytime
7084	FFCB	Anytime
7170	APPL	Anytime starting 1/8/2026
7199	FFCB	Anytime
7222	JPM	Annually starting 4/30/2023
7259	BAC	Semi-annually starting 8/26/2022



COMMISSION MEETING DATE: May 26, 2022

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

AGENDA CATEGORY: Consent

FROM:	Marc Pelletier	METHOD OF SELECTION:
	Acting Assistant General Manager	Sole Source
Division:	Generation Services	If other, please describe:
Department:	Geothermal	

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

RECOMMENDATION:

Approve Resolution 22-56 authorizing the General Manager or his designee to enter into a First Amendment to the Consulting Services Agreement with GeothermEx, Inc. for geothermal reservoir numerical simulations, with any non-substantial changes recommended and approved by the NCPA General Counsel, increasing the not-to-exceed amount from \$225,000 to \$1,000,000, for continued use at the Geothermal Facility.

BACKGROUND:

GeothermEx, Inc. is a leading expert in geothermal reservoir numerical modeling, based in Richmond, CA. While most reservoir modeling companies focus on oil and gas, GeothermEx, Inc. specializes in geothermal-specific modeling, making them unique to other vendors in the same general field. They perform consulting work world-wide on numerous geothermal assets (more than any other company in the world) and are experienced professionals in this subject matter. Thus, NCPA Staff recommends awarding this contract to GeothermEx under NCPA's sole source procurement justification specified in NCPA's Purchasing Manual.

Geothermal reservoir numerical simulations services are required from time to time for the operation and maintenance of NCPA's Geothermal Facility. GeothermEx, Inc. is a provider of these services. NCPA entered into a five-year Consulting Services Agreement with GeothermEx, Inc. effective February 24, 2020, for an amount not to exceed \$225,000, for use at the Geothermal Facility. NCPA Staff is focused on maintaining the output of the geothermal field and reducing the decline in generation that would otherwise occur. Thus, NCPA Staff is performing additional analysis, employing efficiency upgrades within the facility and exploring new technologies to increase steam generation from the field. NCPA Staff believes additional analysis by GeothermEx will allow NCPA Staff to better manage the geothermal field.

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

FISCAL IMPACT:

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

SELECTION PROCESS:

As described above, GeothermEx is in the judgement of NCPA Staff the world leader in geothermal field modeling and analysis. Thus, NCPA Staff requests the Commission approve this agreement as a sole source provider.

May 26, 2022 Page 3

ENVIRONMENTAL ANALYSIS:

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

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (3):

- Resolution 22-56
- Consulting Services Agreement with GeothermEx, Inc.
- First Amendment to Consulting Services Agreement with GeothermEx, Inc.

RESOLUTION 22-56

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

(reference Staff Report #165:22)

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

WHEREAS, GeothermEx, Inc. is a leading expert in geothermal reservoir numerical modeling, based in Richmond, CA. While most reservoir modeling companies focus on oil and gas, GeothermEx, Inc. specializes in geothermal-specific modeling, making them unique to other vendors in the same general field. They perform consulting work world-wide on numerous geothermal assets (more than any other company in the world) and are experienced professionals in this subject matter; and

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

WHEREAS, NCPA Staff is focused on maintaining the output of the geothermal field and reducing the decline in generation that would otherwise occur. Thus, NCPA Staff is performing additional analysis, employing efficiency upgrades within the facility and exploring new technologies to increase steam generation from the field; and

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

WHEREAS, NCPA now desires to enter into a First Amendment to the Consulting Services Agreement to increase the not-to-exceed amount from \$225,000 to \$1,000,000 to ensure there are sufficient funds for current work, as well as through the remaining contract term; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into a First Amendment to the Consulting Services Agreement with GeothermEx, Inc., with any non-substantial changes as approved by the NCPA General Counsel, to increase the not-to-exceed amount from \$225,000 to \$1,000,000, for continued use at the Geothermal Facility.

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

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

ATTEST:



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

This Consulting Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and GeothermEx, Inc., a corporation with its office located at 3260 Blume Drive, Suite 220, Richmond, CA 94806,("Consultant") (together sometimes referred to as the "Parties") as of <u>February 24</u>, 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 <u>Term of Agreement.</u> The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later than <u>February 24</u>, 2025, whichever is shorter.
- **1.2 Standard of Performance.** Consultant shall perform the Services in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged and for which Consultant is providing the Services. Consultant represents that it is licensed, qualified and experienced to provide the Services set forth herein.
- **1.3 Assignment of Personnel.** Consultant shall assign only competent personnel to perform the Services. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Consultant shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- **1.4 Request for Work to be Performed.** At such time that Agency determines to have Consultant perform Work under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific Work to be performed ("Requested Work"), may include a not-to-exceed cap on monetary cap on Requested Work and all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Work shall be completed.

Section 2. COMPENSATION. Agency hereby agrees to pay Consultant an amount NOT TO EXCEED TWO HUNDRED TWENY-FIVE THOUSAND dollars (\$225,000) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

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

Invoices shall be sent to:

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

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

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

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

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

4.2 Commercial General and Automobile Liability Insurance.

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

4.3 **Professional Liability Insurance.** Not Applicable

4.4 All Policies Requirements.

- **4.4.1** <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Consultant shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2 to the extent of liability assumed by Consultant under this Agreement, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
- **4.4.2** Notice of Reduction in or Cancellation of Coverage. Consultant shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
- **4.4.3** <u>Higher Limits.</u> If Consultant maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Consultant.
- **4.4.4** 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 ensues they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

5.1 <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages

whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

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

Section 7. LEGAL REQUIREMENTS.

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

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

Section 8. TERMINATION AND MODIFICATION.

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

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

8.2 Amendments and Change Orders.

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

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

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

Section 9. KEEPING AND STATUS OF RECORDS.

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

9.4 Confidential Information and Disclosure.

9.4.1 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 <u>Non-Disclosure of Confidential Information</u>. During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in 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 <u>Handling of Confidential Information</u>. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof) upon termination of this Agreement, if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

Section 10. MISCELLANEOUS PROVISIONS.

- **10.1** <u>Attorneys' Fees.</u> If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- **10.2** <u>Venue.</u> In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- **10.3 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** <u>Conflict of Interest.</u> Consultant may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Consultant in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

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

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

Minh Pham Reservoir Engineering Manager 3260 Blume Drive, Suite 220 Richmond, CA 94806 Any written notice to Agency shall be sent to:

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

With a copy to:

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

- **10.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- **10.10** <u>Integration; Incorporation.</u> This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- **10.11** <u>Alternative Dispute Resolution</u>. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:
 - **10.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
 - **10.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
 - **10.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
 - 10.11.4The mediation process shall provide for the selection within fifteen
(15) days by both Parties of a disinterested third person as

GS-VEN-2019-107

mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.

- **10.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
- **10.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq*.
- **10.12** <u>Controlling Provisions</u>. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, and Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and the Consultant's Proposal, the Exhibits shall control.
- **10.13** <u>Counterparts.</u> This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- 10.14 <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- **10.15** No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties.

SIGNATURES ON FOLLOWING PAGE

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

NORTHERN CALIFORNIA POWER AGENCY

Date

RANDY S. HOWARD, General Manager

Attest: Assistant Secretary of the Commission

GEOTHERMEX, INC.

Date Feb 12th , 2020

MARCELO AUGUSTODE CAMARGO, President

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT A

SCOPE OF SERVICES

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

Services to include, but not limited to the following:

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

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

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

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

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



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

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

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

WHEREAS, the Agency now desires to amend the Agreement to increase the total compensation authorized by the Agreement from a "NOT TO EXCEED" amount of \$225,000 to a 'NOT TO EXCEED amount of \$1,000,000; and

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

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

NOW, THEREFORE, the Parties agree as follows:

1. <u>Section 2—Compensation</u> of the Agreement is amended and restated to read as follows:

Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED** ONE MILLION dollars (\$1,000,000) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

The remainder of Section 2 of the Agreement is unchanged.

- 2. Exhibit A SCOPE OF SERVICES is amended and restated to read in full as set forth in the attached Exhibit A.
- 3. 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

GEOTHERMEX, INC.

RANDY S. HOWARD, General Manager

ANN ROBERTSON-TAIT, President

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT A

SCOPE OF SERVICES

GeothermEx, Inc. ("Consultant") shall provide geothermal reservoir numerical simulations, as requested by Northern California Power Agency ("Agency") at the Geo0thermal Facility.

Services to include, but not limited to the following:

- Provide a New software platform
 - Create new model in a new software platform to improve understanding of the reservoir
 - o Update the model, calibrating it against operating data
 - o De-coupling of the pipeline network studies
 - Expand reservoir simulations
- Consulting: Geophysical studies
 - o Study to determine the health and viability of the reservoir
 - Reducing injection at saturated sites
 - Increasing injection at superheated sites
 - Reducing the production rate to prolong the production lifetime
 - o During normal operations provide assistance during well workover projects



COMMISSION MEETING DATE: May 26, 2022

SUBJECT: Kinectrics, Inc. – Five Year Multi-Task Professional Services Agreement for generator testing and assessment services; Applicable to the following: All Northern California Power Agency (NCPA) Facilities, NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

Approve Resolution 22-57 authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with Kinectrics, Inc. for generator testing and assessment services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

BACKGROUND:

Generator testing and assessment services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. NCPA currently has an agreement in place with Kinectrics, Inc., which is expiring. NCPA has utilized this vendor in the past for services such as quality control testing on stator bars used in the Hydro generator rewind project. NCPA has a good working relationship with the vendor and wishes to continue that relationship. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. NCPA has agreements in place for similar services with Ethos Energy, Andritz Hydro, and Sulzer Turbo Services.

FISCAL IMPACT:

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

SELECTION PROCESS:

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

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

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

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

May 26, 2022 Page 3

Respectfully submitted,

0 0

RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 22-57
- Multi-Task Professional Services Agreement with Kinectrics, Inc.

RESOLUTION 22-57

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

(reference Staff Report #166:22)

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

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

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

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

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

PASSED, ADOPTED and APPRO	VED this	_ day of	, 2022 by the fo	llowing vote
on roll call:				
	Vote	Abstained	Absent	

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

DAVID HAGELE CHAIR

ATTEST:

CARY A. PADGETT ASSISTANT SECRETARY



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

This Professional Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Kinectrics AES Inc., a corporation with its office located at 4117 Clipper Court, Fremont, CA 94538 ("Consultant") (together sometimes referred to as the "Parties") as of ______, 202_ ("Effective Date") in Roseville, California.

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

- **1.1** <u>**Term of Agreement.**</u> The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.
- **1.2** <u>Standard of Performance.</u> Consultant shall perform the Services in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged and for which Consultant is providing the Services. Consultant represents that it is licensed, qualified and experienced to provide the Services set forth herein.

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

1.3 <u>Assignment of Personnel.</u> Consultant shall assign only competent personnel to perform the Services. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Consultant shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.

- **1.4** <u>Services Provided.</u> Services provided under this Agreement by Consultant may include Services directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.
- **1.5** <u>**Request for Services.**</u> At such time that Agency determines to use Consultant's Services under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific services to be performed ("Requested Services"), may include a not-to-exceed monetary cap on Requested Services and expenditures authorized by that Purchase Order, and a time by which the Requested Services shall be completed. Consultant shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Consultant chooses not to perform the Requested Services. If Consultant agrees to perform the Requested Services, begins to perform the Requested Services or does not respond within the seven day period specified, then Consultant will have agreed to perform the Requested Services on the terms set forth in the Purchase Order, this Agreement and its Exhibits.
- Section 2. COMPENSATION. Agency hereby agrees to pay Consultant an amount NOT TO EXCEED ONE MILLION DOLLARS (\$1,000,000) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.
 - 2.1 <u>Invoices.</u> Consultant shall submit invoices, not more often than once a month during the term of this Agreement, or in accordance with Consultant's Quotation for work, or as specified in the Purchase Order, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:
 - The beginning and ending dates of the billing period;
 - Services performed;
 - The Purchase Order number authorizing the Services;
 - At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder where work is performed on a Time & Materials basis only; and
 - At Agency's option, when the Consultant's Scope of Work identifies tasks, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction for the work performed on Time & Material basis only.

Invoices shall be sent to:

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

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

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

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

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

4.2 Commercial General and Automobile Liability Insurance.

- **4.2.1** <u>Commercial General Insurance</u>. Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- **4.2.2 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** <u>General Liability/Umbrella Insurance.</u> The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.
- 4.3 Professional Liability Insurance. Consultant shall maintain professional liability insurance appropriate to Consultant's profession performing work in connection with this Agreement in an amount not less than one million dollars (\$1,000,000) and two million dollars (\$2,000,000) aggregate covering the Consultant's errors and omissions. Any deductible or self-insured retention shall not exceed two hundred fifty thousand dollars (\$250,000) per claim. Such insurance shall be on a "claims-made" basis, subject to the following conditions: (1) the retroactive date of the policy shall be on or before the Effective Date of this Agreement; (2) the policy shall be maintained for at least five (5) years after completion of the Services and, if requested by Agency, evidence of coverage shall be provided during this period; and (3) if, within five (5) years of completion of the Services, coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Agreement, Consultant shall purchase "extended reporting" coverage for a minimum of five (5) years after completion of the Services and, if requested by Agency, provide evidence of coverage during this period.

4.4 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** <u>Higher Limits.</u> If Consultant maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Consultant.
- **4.4.4** Additional Certificates and Endorsements. If Consultant provides services to Agency members, SCPPA and/or SCPPA members, Consultant shall provide certificates of insurance and policy endorsements, as referenced in Section 4.4.1, naming the specific Agency member, SCPPA or Agency member for which the Services are to be performed.
- **4.5 Consultant's Obligation.** Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensues they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

- **5.1** <u>Effect of Insurance.</u> Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.
- **5.2 Scope.** Consultant shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners,

officers, employees, and volunteers from and against any and all claims to the extent that the claims arise out of, pertain to or relate to the negligence, recklessness or willful misconduct of the Consultant in its performance of Services under this Agreement. Consultant shall bear all losses, costs, damages, expense and liability of every kind, nature and description to the extent that they arise out of, pertain to, or relate to such claims, whether directly or indirectly ("Liabilities"). (See Cal. Civ Code Section 2782.8 limiting indemnity for design professionals including professional engineers.) Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the negligence, active negligence, or willful misconduct of the Agency.

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

Section 6. STATUS OF CONSULTANT.

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

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

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

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

- **6.2** <u>**Consultant Not Agent.**</u> Except as Agency may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- 6.3 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** <u>Certification as to California Energy Commission.</u> If requested by the Agency, Consultant shall, at the same time it executes this Agreement, execute Exhibit C.

Section 7. LEGAL REQUIREMENTS.

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

Section 8. TERMINATION AND MODIFICATION.

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

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

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

8.4.4 Charge Consultant the difference between the costs to complete the Services that are unfinished at the time of breach and the amount that Agency would have paid Consultant pursuant hereto if Consultant had completed the Services.

Section 9. KEEPING AND STATUS OF RECORDS.

9.1 Records Created as Part of Consultant's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Consultant hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Consultant agree that, unless approved by Agency in writing, Consultant shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.

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

- **9.2** <u>Consultant's Books and Records.</u> Consultant shall maintain any and all records or other documents evidencing or relating to charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.
- **9.3 Inspection and Audit of Records.** Any records or documents that this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Agreement. Notwithstanding the above, Agency shall not audit the cost or pricing components of any fixed price work as long as doing so does not violate state law.

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

9.4.1 <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise,

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

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

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

10.7 <u>Contract Administrator.</u> This Agreement shall be administered by the Assistant General Manager, Generation Services, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.

10.8 Notices. Any written notice to Consultant shall be sent to:

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

Any written notice to Agency shall be sent to:

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

With a copy to:

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

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

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

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

SIGNATURES ON FOLLOWING PAGE

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

NORTHERN CALIFORNIA POWER AGENCY

Date_____

KINECTRICS AES INC.

Date_____

RANDY S. HOWARD, General Manager

SHAHROKH ZANGENEH, **Chief Commercial Officer**

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT A

SCOPE OF SERVICES

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

L Standard Generator Testing and Assessment;

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

<u>II.</u> Stator Winding Insulation Resistance and Polarization Index:

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

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

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

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

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

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

<u>IV.</u> Stator Winding Off-Line Partial Discharge Testing:

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

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

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

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

V. Stator Winding Electromagnetic (Corona or TVA) Test

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

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

<u>VI.</u> Stator Winding Ultrasonic Inspection and/or Corona Camera/Corona Scope Inspection of Winding Connection End

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

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

<u>VII.</u> Stator Winding Resistance

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

VIII. Stator AC Overvoltage Withstand Test

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

IX. Stator Winding DC Ramped Overvoltage Test

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

X. Stator Winding Limited Stator Winding Inspection

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

<u>XI.</u> Additional Generator Tests;

<u>1.</u> Stator Slot Wedge Tightness

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

2. Stator Core Low Energy (EICID) Test

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

3. Isolated Phase Bus Test

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

II. Failure Analysis and Other Miscellaneous Technical Assistance

Perform document review for NCPA on an as requested basis.

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

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

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

THERMAL CYCLING TEST:

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

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

VOLTAGE ENDURANCE TEST:

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

The test conditions shall be as follows:

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

Pass/Fail Criteria:

Surge Test (Coils Only):

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

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

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

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

Thermal Cycling Test:

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

Voltage Endurance Testing:

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

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

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

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

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

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

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

- I. Standard Generator Testing and Assessment: \$42,000
- II. Advance Generator Testing and Assessment: TBD
- III. Additional Generator Tests
 - 1. Wedge Test: \$10,500
 - 2. ELCID Test: \$12,500
 - 3. Iso-Phase Bus Test: \$5,000

Additional Day (Mon-Fri): \$ 6,500

Additional Day (Sat-Sun): \$ 8,600

- IV. Technical Assistance and Document Review:
 - 1. Hourly Rate: \$215/Hour
 - 2. Expenses: Expenses + 15% Handling Fee
- V. Qualification Testing of 13.8kV stator bars/coils: \$ 60,000 (Does not include any failure analysis and/or repeat testing in case of any failure of the samples)

NOTES:

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

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

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

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

EXHIBIT C

CERTIFICATION

Affidavit of Compliance for Contractors

I, ____

(Name of person signing affidavit)(Title)

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

(Company name)

for contract work at:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____day of _____, 20 ____.

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



Commission Staff Report

COMMISSION MEETING DATE: May 26, 2022

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

AGENDA CATEGORY: Consent

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

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

Parker Landscape Development, Inc. First Amendment to 5 Year MTGSA May 26, 2022 Page 2

RECOMMENDATION:

Recommending the Northern California Power Agency (NCPA) Commission approve Resolution 22-59 authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Parker Landscape Development, Inc. for professional commercial landscape services, tree care, and special projects increasing the not to exceed amount to \$300,000.

BACKGROUND:

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

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

FISCAL IMPACT:

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

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

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

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

Respectfully submitted,

RÀNDY S. HOWARD General Manager

Attachments:

- Resolution 22-59
- First Amendment to the General Services Agreement between The Northern California Power Agency and Parker Landscape Development, Inc.
- Multi-Task General Services Agreement with Parker Landscape Development, Inc.

RESOLUTION 22-59

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

(reference Staff Report #170:22)

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

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

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

WHERAS, both parties have agreed to modify the Agreement as set forth above; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Parker Landscape Development, Inc. for professional commercial landscape services, tree care, and special projects increasing the not to exceed amount to \$300,000 for continued use at NCPA all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. PASSED, ADOPTED and APPROVED this ____ day of _____, 2022, by the following vote on roll call:

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

DAVID HAGELE CHAIR

ATTEST:

CARY A. PADGETT ASSISTANT SECRETARY



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

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

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

WHEREAS, the Agency now desires to amend the Agreement to increase the total compensation authorized by the Agreement from a "NOT TO EXCEED" amount of \$200,000 to a 'NOT TO EXCEED amount of \$300,000; and

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

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

NOW, THEREFORE, the Parties agree as follows:

1. Section 2-Compensation of the Agreement is amended and restated to read as follows:

Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** THREE HUNDRED THOUSAND dollars (\$300,000) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

The remainder of Section 2 of the Agreement is unchanged.

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

First Amendment to General Services Agreement between Northern California Power Agency and Parker Landscape Development, Inc. Template 6-8-18 Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel



MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND PARKER LANDSCAPE DEVELOPMENT, INC.

This Multi-Task General Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Parker Landscape Development, Inc., a corporation with its office located at 6011 Franklin Boulevard, Sacramento, CA 95824 ("Contractor") (together sometimes referred to as the "Parties") as of <u>Apple 3</u>, 2018 ("Effective Date") in Roseville, California.

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

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

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

Section 2. COMPENSATION. Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** two hundred thousand dollars (\$200,000) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

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

Invoices shall be sent to:

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

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

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

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

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

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

4.2 Commercial General and Automobile Liability Insurance.

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

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

Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

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

Section 6. STATUS OF CONTRACTOR.

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

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

Contractor shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages,

expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Contractor's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

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

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

Section 7. LEGAL REQUIREMENTS.

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

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

Contractor shall be required to submit to the Agency during the contract period, copies of Public Works payroll reporting information per California Department of Industrial Relations, Form A- 1-131 (New 2-80) concerning work performed under this Agreement.

Contractor shall comply with applicable law, including Labor Code Sections 1774 and 1775. In accordance with Section 1775, Contractor shall forfeit as a penalty to Agency \$50.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for such work or craft in which such worker is employed for any Work done under the Agreement by Contractor or by any subcontractor under Contractor in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 *et seq.* In addition to the penalty and pursuant to Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

Section 8. TERMINATION AND MODIFICATION.

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

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

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

Section 9. KEEPING AND STATUS OF RECORDS.

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

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

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

unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.

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

Section 10. PROJECT SITE.

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

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

Section 11. WARRANTY.

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

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

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

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

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

Section 13. MISCELLANEOUS PROVISIONS.

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

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

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

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

Any written notice to Agency shall be sent to:

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

With a copy to:

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

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

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

party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

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

NORTHERN CALIFORNIA POWER AGENCY

S. HOWARD, General Manager

Date in

PARKER LANDSCAPE DEVELOPMENT INC.

Date 3.19.18

RICK CORREA, Chief Operating Officer

Attest:

Assistant Secretary of the Commission

Approved as to Form:

RAND

uchhard General Counsel

EXHIBIT A

SCOPE OF WORK

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

Professional Commercial Landscape Services

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

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

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

Or

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

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

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

EXHIBIT C

CERTIFICATION

Affidavit of Compliance for Contractors

١, Dawnielle Meier

(Name of person signing affidavit)(Title)

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

(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 19th day of March , 20 18.

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

***** NOT APPLICABLE *****

EXHIBIT D

CERTIFICATION

Affidavit of Compliance for Hazardous Materials Transport Vendors

(Name of person signing affidavit)(Title)

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

(Company name)

for hazardous materials delivery to:

١,

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

(Project name and location)

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

(Signature of officer or agent)

Dated this ______, 20 ___,

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

EXHIBIT E

ATTACHMENT A [from MLA] AGREEMENT TO BE BOUND

MAINTENANCE LABOR AGREEMENT ATTACHMENT LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

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

DATED: 3.19.18 Name of Employer

Parker Landscape Dev.

Dannielle Maier (Authorized Officer & Title) V. President UOII Franklin BI Sac.CA (Address)



Commission Staff Report

COMMISSION MEETING DATE: May 26, 2022

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

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

Recommending the Northern California Power Agency (NCPA) Commission approve Resolution 22-61 authorizing revisions to NCPA's Investment Policy and Guidelines No. 200-100.

BACKGROUND:

Investment Policy

NCPA sets forth its objectives, risk preference, 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 against California Government Code, Sections 53600 and 53635 et seq. and recommends including exclusion of OPEB Trust from policy applicability, portfolio rebalancing language, addition of portfolio benchmark section, inclusion of language for allowance of zero or negative interest accrual for securities issued or backed by the United States government during a period of negative market interest rates, addition of Attachment 3 (List of Permitted Investments), update of Attachment 4 to include applicable government code sections, reduction of maximum allowable investment in commercial paper from 40% to 25% of the portfolio, and addition of Supranational Obligations as an approved investment type with a maximum of 15% of the total portfolio and a maximum of 5% per issuer for International Bank for Reconstruction (IBRD), International Finance Corporation (IFC), and Inter-American Development Bank (IADB).

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.

Review and Approve 2022 Investment Policy Updates May 26, 2022 Page 3

COMMITTEE REVIEW:

The revisions to NCPA's Investment Policy and Guidelines No. 200-100 were reviewed by the Finance Committee on May 10, 2022 and were unanimously recommended for Commission approval.

Respectfully submitted,

andy S Hm

RÁNDY S. HOWARD General Manager

Attachments: Resolution 22-61 Investment Policy and Guidelines No. 200-100

RESOLUTION 22-61

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY REVIEW AND APPROVE INVESTMENT POLICY GUIDELINES

(reference Staff Report #172:22)

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 preference, authorized investments and other investment related priorities that serves 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) exclude the Other Post Employment Benefit Trust (OPEB Trust) from policy applicability; 2) include portfolio rebalancing language in Investment Operations and Guidelines; 3) add portfolio benchmark section with 12-month moving average Constant Maturity Treasury (CMT) Index as benchmark; 4) add language allowing for zero or negative interest accrual for securities issued or backed by the United States government during a period of negative market interest rates (sunsets January 1, 2026 unless a subsequent bill amends Section 53601.6 of the Government Code); 5) add Attachment 3 (List of Permitted Investments) to supplement Attachment 4 (Table of Permitted Investments); update Attachment 4 to include applicable government code sections, reduce maximum allowable investment in commercial paper from 40% to 25% of portfolio, and add Supranational Obligations as an approved investment type with a maximum of 15% of the total portfolio and a maximum of 5% per issuer for International Bank for Reconstruction (IBRD), International Finance Corporation (IFC), and Inter-American Development Bank (IADB); and

WHEREAS, the Finance Committee approved staff's recommended revisions to the Investment Policy and Guidelines No. 200-100 at their meeting on May 10, 2022; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency adopts policy revisions including exclusion of OPEB Trust from policy applicability, portfolio rebalancing language, adding portfolio benchmark section, adding allowance of zero or negative interest accrual for securities issued or backed by the United States government during a period of negative market interest rates, adding Attachment 3 (List of Permitted Investments), update of Attachment 4 to include applicable government code sections, reduced maximum allowable investment in commercial paper from 40% to 25% of portfolio, and addition of Supranational Obligations as an approved investment type with a maximum of 15% of the total portfolio and a maximum of 5% per issuer for the IBRD, IFC, IADB.

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

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

DAVID HAGELE CHAIR ATTEST:

CARY A. PADGETT ASSISTANT SECRETARY

		POLICIES & PROCEDURES MANUAL	No. 200-100	
			Owner: Accounting & Finance	Effective: 9-1993 Updated 05-2022
		estment Policy and Guidelines	APPROVED:	
			RANDY S. HOWARD, GE	NERAL MANAGER

TABLE OF CONTENTS

2
2
2
2
3
3
4
5
5
5
6
6
6
7
9
12
13
17
19
20

POLICY

It is the policy of the Agency to secure, protect and manage the funds of Agency and invest surplus funds in a manner which will:

- comply with applicable California state laws and bond indenture provisions;
- ensure safety of the principal;
- provide an appropriate level of liquidity so that money is available when reasonably expected to be required for payment of obligations; and,
- 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.

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 5.

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

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

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 RESPONSIBLITY, AND ETHICS

Prudence: Management of Agency's investments is governed by the Prudent Investor Standard as set forth in California Government Code Section 53600.3:

"...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."

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.

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 execution of 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.

GENERAL 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.
- 2. *Liquidity*: The investment portfolio will remain sufficiently liquid to meet all operating requirements that may be reasonably anticipated.
- 3. **Return on Investments**: The investment portfolio will be designed with the objective of attaining a market rate of return throughout budgetary and economic cycles taking into account the investment risk constraints for safety and liquidity needs.

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. 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 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 governing board.

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 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 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 and shown in Attachment 4.

AUTHORIZED FINANCIAL INSTITUTIONS AND DEALERS

The Treasurer-Controller shall establish 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.

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.

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.

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.

DELEGATION OF AUTHORITY, INTERNAL CONTROL, AND ACCOUNTING

Authority to manage 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 and fraud, the accuracy and completeness of accounting records and the timely preparation of reliable financial information.

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 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. 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.

Collateralization will be required on two types of investments: certificates of deposit and repurchase agreements. In order to anticipate market changes and provide a level of security for all funds, a minimum collateralization level measured at specified times is required.

REPORTING REQUIREMENTS

Monthly Reports: 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.

Annually: The Treasurer-Controller shall annually submit to the Commission a statement of Investment Policy and any recommended changes to the policy.

INVESTMENT OPERATIONS GUIDELINES

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

- All investments will be made in the name of the Northern California Power Agency.
- 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.
- Investments or collateral for all outside trusteed accounts must be delivered to the trustee.
- Investments or collateral for all accounts held by NCPA will be delivered to and held in the safekeeping of an authorized financial institution.
- 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.
- 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.
- 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.

- 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.
- 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.
- 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.

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.

Prohibited investment vehicles 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 rates^{*1}.
- 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.

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 Table of Bond Indenture Permitted Investments
- Attachment 6 Credit Rating Comparison

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

VERSION HISTORY

No.	Explanation	Date	Author
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 included 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.

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. **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: <u>buy and hold</u>, which includes the laddering of maturities; and <u>bullet structure</u>, 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	Objective	IIIveStilleitt
Construction Fund (Geo)	С	1 year
Construction Revolving Acct (LEC)	A	90 days
Debt Service Fund	С	1 year
Debt Service Reserve	B, D	15 years
Reserve Fund	B, C, D	5 years
Rebate Fund	С	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 except for: Callable and Multi-step-up securities provided that:
 - 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. 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 Category A (A-/Aa3) rating 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 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 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. 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 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.
- b) An investment advisor registered with the Securities and Exchange Commission for not less than five years having investment experience in the underlying securities and with assets under management in excess of \$500 million.

Money Market Funds must meet either 1 or 2 above. 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
- **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 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 percentage 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	None	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	None	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 insurance; By a NRSRO; Category A for amounts > than FDIC insurance	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	5 years	Registered with SEC; Assets > \$500MM; No more than 5% per fund	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.

ATTACHMENT 5 TABLE OF BOND INDENTURE PERMITTED INVESTMENTS

Project	G	eo/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 Stated of America.	x	x	x	х	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.						×
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 6 CREDIT RATINGS COMPARISON

			Standard			
Description	Moody's		& Poors		Fitch	
	Long-	Short-	Long-	Short-	Long-	Short-
	term	term	term	term	term	term
Prime:						
Extremely Strong	Aaa		AAA		AAA	
High Grade:						
Very Strong	Aa1		AA+	A-1+	AA+	F1+
	Aa2	P-1	AA		AA	
	Aa3		AA-		AA-	
Upper Medium Grade:						
Strong	A1		A+	A-1	A+	F1
	A2		A		Α	
	A3		A-		A-	
Lower Medium Grade:		P-2		A-2		F2
Adequate	Baa1		BBB+		BBB+	
	Baa2	P-3	BBB	A-3	BBB	F3
	Baa3		BBB-		BBB-	
Non-investment Grade speculative:						
Vulnerable	Ba1		BB+		BB+	
	Pel	Not	BB	В	DD	P
	Ba2	Prime		D	BB	В
	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 MEETING DATE: May 26, 2022

SUBJECT: Temporary Lodi Energy Center (LEC) Scheduling and Dispatch Operations and Economic Criteria; Applicable to the following: Northern California Power Agency (NCPA) LEC Facility

AGENDA CATEGORY: Consent

FROM:	Marc Pelletier MK	METHOD OF SELECTION:
	Acting Assistant General Manager	N/A
Division:	Generation Services	If other, please describe:
Department:	Combustion Turbines	

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

RECOMMENDATION:

Approve Resolution 22-62 authorizing the General Manager or his designee to implement the temporary scheduling and bidding guidelines described in Staff Report No. 173:22, as such may be adjusted as needed to achieve the objective of the strategy, until the unit gear can be replaced and full repairs are completed.

BACKGROUND:

LEC Staff performed unit equipment inspections during their planned major maintenance outage during the period of March 2022 through May of 2022. During that outage, LEC Staff performed an inspection of the gearbox that connects the high-pressure steam turbine to the generator and discovered a broken tooth on the gear. Consistent with LEC Staff protocol with Siemens equipment, LEC Staff sent a request for a disposition to Siemens engineering department. In response to such disposition, Siemens indicated that the ideal recommendation would be to replace the damaged gear. However, due to long lead times, LEC Staff is unable to immediately obtain the replacement gear at this time. LEC Staff consulted with the gearbox manufacturer, Flender, regarding the best solution under the circumstances. Flender recommended LEC continue operating the gear, but at less than full capacity, resulting in the unit being de-rated by 25%. However, Flender stated that they cannot guarantee gearbox integrity even at this de-rated unit capacity.

Due to the damaged unit gear, there are mechanical risks associated with operating the unit, but such risks may be mitigated by operating the unit consistent with the manufacturer's recommendation, or operating the unit at a de-rated operating level of 225 MW. Operating the unit at the recommended level also creates other financial risks associated with the guaranteed loss of revenue should LEC strictly operate in accordance with the recommendations from Flender. Both of these forms of risk are mutually exclusive. In order to mitigate the overall risk to LEC Project Participants, there must be a balance between the option of a full de-rate and the desire to run the unit without restrictions.

Operationally, NCPA was unable to perceive or detect any problems with the gearbox prior to the inspection that revealed the broken tooth. It is unknown when it broke and how long the unit was operating this way. The manufacturer states that it will not be able to ship replacement parts until January 5, 2023. LEC Staff notes the California Independent System Operator (CAISO) has warned of a shortfall in energy supplies available to California this summer and fall (Memorandum; Briefing on 2022 Summer Loads and Resources Assessment Results; Neil Millar, Vice President, Infrastructure & Operation Planning; May 5, 2022). Due to the extreme lead times associated with receipt of the replacement gear, and due to the projected tight energy supply conditions forecasted during the summer of 2022, LEC Staff recommends a strategy that will attempt to maintain the operational integrity of the unit based on the gearbox manufacturer's recommendations, but will also strive to enable market dispatch of the full unit capacity during a limited number of hours (up to 400 hours) to support grid reliability. The objective of this strategy involves temporarily operating the unit at the de-rated capacity (225 MW) during a majority of operating hours, but bidding the full unit capacity into the CAISO markets to enable the unit to be dispatched at full unit capacity during a limited number of hours (up to 400 hours) to support grid reliability. LEC Staff will perform additional enhanced vibration monitoring and analysis of the gearbox while this temporary operating strategy is in place to help detect changes in the gear that may signal imminent unit failure. LEC Staff notes and requests LEC Project Participant

May 26, 2022 Page 3

acknowledgment that this strategy does deviate from the recommendations of the manufacturer, and therefore may increase the risk of unit damage or an extended unit outage.

Temporary Scheduling and Bidding Guidelines

In order to implement a strategy focused on operating the unit consistent with the manufacturer's recommendations for a majority of operating hours, but to also enable market dispatch of the full unit capacity during a limited number of hours (up to 400 hours) to support grid reliability, LEC Staff recommends adopting temporary scheduling and bidding guidelines to augment the Scheduling and Dispatch Operations and Economic Criteria set forth in the Lodi Energy Center Project Management and Operations Agreement Schedule 1.00 (PMOA Schedule 1). Such temporary scheduling and bidding guidelines will authorize LEC Staff to bid the unit into the CAISO day-ahead and real-time market as follows: LEC Staff will bid the unit capacity up to 225 MW based on the guidelines set forth in PMOA Schedule 1, and LEC Staff will bid the incremental unit capacity from 225 MW up to the units full capacity¹ to include an additional cost adder to account for the use-limited nature of the targeted number of hours operating at this higher output level (up to 400 hours), including accounting for opportunity costs as a component of the bid rate. The objective of the temporary scheduling and bidding guidelines described herein is to preserve the integrity of the unit, but to also enable the unit to be dispatched to full load for a limited number of hours to support grid reliability.

It is important to note that due to various bidding requirements and market-based factors, including, but not limited to the unit's potential exposure to market power mitigation and CAISO exceptional dispatch, NCPA Staff may be required to adjust the temporary scheduling and bidding guidelines described herein to achieve the objective of the strategy as directed by the LEC Project Participants.

INSURANCE:

In regards to the insurance risk, NCPA Staff met separately with LEC's property insurer, FM Global, to review the current situation relative to reinstalling the compromised gearbox and the potential chance of the unit running above the manufacturer's recommended de-rate output. FM Global confirmed it would still be considered a covered loss should the gearbox fail and cause damage. However, the LEC Project Participants would be responsible for paying any loss up to the policy deductible of \$2.5 million prior to any claim losses paid by FM Global. FM Global engineers have estimated the following:

• Routine Loss (high frequency; low severity)- further damage to the gears occurs but the event develops slowly and is quickly detected by operators and safety systems (steam sensing/vibration), immediately tripping the unit. Little to no damages beyond the gear box occurs. Loss of gearbox is estimated at about \$1M with a replacement time estimated at 90-180 days.

• Probable Loss (moderate frequency; moderate severity)- further damage to the gears occurs but the event is quick. Operators and safety systems trip the unit but damage to shaft, adjacent piping, and equipment occurs. Shaft stays connected to the generator load and the steam turbine does not overspeed. Estimated loss \$3M with replacement and repairs estimated at 180 days - 365 days.

• Maximum Loss (low frequency; high severity)- major damage to gear set occurs quickly. Damage results in gearbox decoupling from the generator. Operators and safety devices fail to

¹ Adjusted for ambient temperature de-rates.

May 26, 2022 Page 4

act and the steam turbine goes into an overspeed condition, resulting in major damage. Estimated loss \$7M with replacement time of 365 - 545 days.

Notes about the above estimates: LEC Project Participants did not purchase the Time Element coverage. The estimates above only reflect the property damage costs to repair and replace the equipment. There will be additional costs borne by the participants for lost revenue and replacement capacity.

FISCAL IMPACT:

The fiscal impact of implementing the temporary scheduling and bidding guidelines described herein is unknown due to various market conditions, but LEC Staff believe implementing the temporary scheduling and bidding guidelines will provide LEC Staff key tools that can be used to preserve and/or maximize unit production value, while balancing unit operations to achieve the objectives of the strategy until the unit can be repaired. The fiscal impact of implementing the temporary scheduling and bidding guidelines will be further discussed with the Project Participant Committee (PPC) during the period of time the strategy is in place, and the strategy may be refined based on further direction received from the PPC.

ENVIRONMENTAL ANALYSIS:

The California Energy Commission has completed a California Environmental Quality Act equivalent process and permitted the construction and operation of LEC. This recommendation does not modify the environmental attributes of the facility nor affect its ability to meet its permitted conditions.

COMMITTEE REVIEW:

On May 13, 2022, the LEC PPC reviewed and approved the temporary scheduling and bidding guidelines described herein, and recommended that the NCPA Commission direct LEC Staff to implement the temporary scheduling and bidding guidelines described herein, as such may be adjusted as needed to achieve the objective of the strategy, until the gear can be replaced and full repairs are completed.

Respectfully submitted,

RÁNDY S. HOWARD General Manager

Attachments (1):

Resolution 22-62

RESOLUTION 22-62

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE TEMPORARY LODI ENERGY CENTER (LEC) SCHEDULING AND DISPATCH OPERATIONS AND ECONOMIC CRITERIA

(reference Staff Report #173:22)

WHEREAS, LEC Staff performed unit equipment inspections during their planned major maintenance outage during the period of March 2022 through May of 2022; and

WHEREAS, during the outage, LEC Staff performed an inspection of the gearbox that connects the highpressure steam turbine to the generator and discovered a broken tooth on the gear; and

WHEREAS, Siemens recommended replacing the damaged gear, however due to long lead times, LEC Staff is unable to immediately obtain the replacement gear at this time; and

WHEREAS, the gearbox manufacturer, Flender, recommended LEC continue operating the gear, but at less than full capacity, resulting in the unit being de-rated by 25%; and

WHEREAS, due to the extreme lead times associated with receipt of the replacement gear, and due to the projected tight energy supply conditions forecasted during the summer of 2022, LEC Staff recommends a strategy that will attempt to maintain the operation integrity of the unit based on the gearbox manufacturer's recommendations, but will also strive to enable market dispatch of the full unit capacity during a limited number of hours to support grid reliability; and

WHEREAS, the Lodi Energy Center Project Participants approved of this at the May 13, 2022 meeting; and

WHEREAS, the California Energy Commission has completed a California Environmental Quality Act equivalent process and permitted the construction and operation of LEC. This recommendation does not modify the environmental attributes of the facility nor affect its ability to meet its permitted conditions; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to implement the temporary scheduling and bidding guidelines described in Staff Report No. 173:22, as such may be adjusted as needed to achieve the objective of the strategy, until the unit gear can be replaced and full repairs are completed.

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

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



COMMISSION MEETING DATE: May 26, 2022

SUBJECT: Approval of Western Area Power Administration (WAPA) 2022 Renewable Energy Credit (REC) Program Letter of Agreement 22-SNR-02738

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

NCPA staff recommends that the Commission of the NCPA adopt and approve the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738, and authorize the General Manager of NCPA to execute the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738, on behalf of NCPA, including any non-substantive modifications to the WAPA 2022 REC Program Letter of Agreement approved by NCPA's General Counsel.

BACKGROUND:

NCPA Members are subject to a variety of environmental mandates that require the use of RECs to demonstrate compliance with the state's legislative mandate and goal that a significant portion of retail sales be served by renewable energy resources.

The NCPA Members are preference power customers of WAPA, and purchase a percentage share of the Base Resource product, which consists of various products including the energy, capacity, and environmental attributes produced by the hydroelectric facilities that make up the Central Valley Project (CVP).

DISCUSSION:

Pursuant to the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738, WAPA has established a program to distribute RECs produced by CVP facilities to preference power customers. Certain NCPA Members who have assigned their Base Resource percentage to NCPA have requested NCPA to enter into the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 on their behalf¹, in order for NCPA to receive RECs from WAPA.

The WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 specifies the terms and conditions under which RECs are transferred from WAPA to preference power customers. The WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 has a term of one (1) year, expiring July 31, 2023; applies to RECs produced by CVP facilities in 2022; and, allows either party to terminate the agreement upon a 30-day prior written notice. RECs received pursuant to the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 are nontransferable, except NCPA may transfer RECs to Members it represents under the agreement. WAPA does not warrant or represent that the RECs provided from the CVP will satisfy any federal or state renewable energy mandates.

A draft of the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 is attached to this staff report for your reference.

FISCAL IMPACT:

Costs associated with entering into the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 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. NCPA's administrative costs for development and administration of the agreement will be allocated to

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

May 26, 2022 Page 3

Members in accordance with approved cost allocation methodologies as described 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.

COMMITTEE REVIEW:

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

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 22-64
- WAPA 2022 REC Program Letter of Agreement 22-SNR-02738

RESOLUTION 22-64

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVAL OF WAPA 2022 REC PROGRAM LETTER OF AGREEMENT 22-SNR-02738

(reference Staff Report #175:22)

WHEREAS, the Northern California Power Agency (NCPA) Members are subject to a variety of environmental mandates that require the use of Renewable Energy Credits (RECs) to demonstrate compliance with the state's legislative mandate and goal that a significant portion of retail sales be served by renewable energy resources; and

WHEREAS, NCPA Members are preference power customers of Western Area Power Administration (WAPA), and purchase a percentage share of the Base Resource product, which consists of various products including the energy, capacity, and environmental attributes produced by the hydroelectric facilities that make up the Central Valley Project (CVP); and

WHEREAS, pursuant to the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738, WAPA has established a program to distribute RECs produced by CVP facilities to preference power customers, and certain NCPA Members who have assigned their Base Resource percentage to NCPA have requested NCPA to enter into the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 on their behalf¹, in order for NCPA to receive RECs from WAPA; and

WHEREAS, the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 specifies the terms and conditions under which RECs are transferred from WAPA to preference power customers, including specifying that RECs received pursuant to the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 are nontransferable, except NCPA may transfer RECs to Members it represents under the agreement; and

WHEREAS, costs associated with entering into the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738 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, and NCPA's administrative costs for development and administration of the agreement will be allocated to Members in accordance with approved cost allocation methodologies as described 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 adopt and approve the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738, and authorize the General Manager of NCPA to execute the WAPA 2022 REC Program Letter of Agreement 22-SNR-02738, on behalf of NCPA, including any non-substantive modifications to the WAPA 2022 REC Program Letter of Agreement approved by NCPA's General Counsel.

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

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

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

DAVID HAGELE CHAIR

ATTEST: CARY A. PADGETT ASSISTANT SECRETARY



Department of Energy

Western Area Power Administration Sierra Nevada Region 114 Parkshore Drive Folsom, CA 95630-4710

Sent via E-Mail

Letter of Agreement 22-SNR-02738

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

Dear Mr. Howard:

Northern California Power Agency (NCPA) is a customer of Western Area Power Administration's (WAPA) Sierra Nevada Region (SNR) and has executed Base Resource Contract 04-SNR-00782 with WAPA. Some of SNR's customers have requested that SNR make the renewable energy certificates (RECs) that may be associated with SNR's hydropower generation available to them to assist in meeting their renewable requirements. Although SNR is willing to initiate a 2022 REC program, SNR does not warrant or represent that the RECs it provides under this program will satisfy any Federal or State renewable portfolio standards.

This Letter of Agreement (LOA) provides the terms and conditions under which SNR will apportion RECs to participants in the 2022 REC Program in association with power generated in 2022.

- 1. Participation in SNR's REC Program:
 - 1.1 In order to receive an apportionment of RECs from SNR's REC Program, NCPA must be a Western Renewable Energy Generation Information System (WREGIS) Account Holder. SNR will not create or apportion RECs for NCPA until its WREGIS Account Holder status has been verified.
 - 1.2 A project use customer may participate in SNR's REC Program by providing written notice to SNR at least sixty (60) days prior to the first day of the first month that such customer desires to begin participation.
 - 1.3 All RECs provided under this LOA shall be from the vintages January 2022 through December 2022.

- 1.4 For the purposes of participating in SNR's REC Program under this LOA, NCPA shall include the following members and the base resource percentages they have assigned to NCPA:
 - 1.4.1 Alameda Municipal Power
 - 1.4.2 Biggs, City of
 - 1.4.3 Gridley, City of
 - 1.4.4 Healdsburg, City of
 - 1.4.5 Lodi, City of
 - 1.4.6 Lompoc, City of
 - 1.4.7 Oakland, Port of
 - 1.4.8 Plumas-Sierra Rural Electric Cooperative
 - 1.4.9 Ukiah, City of

2. Definitions:

- 2.1 "CVP RECs" shall mean the RECs that may be associated with the megawatthours from Central Valley Project (CVP) hydropower generation.
- 2.2 "Stampede RECs" shall mean the RECs that may be associated with the megawatthours from the Washoe Project hydropower generation.
- 2.3 "Unclaimed RECs" shall mean the RECs that may be associated with SNR's hydropower generation from Lewiston, Nimbus and Stampede that are not being claimed by other preference or project use customers.

3. Apportionment of RECs:

SNR will apportion the RECs in a three-step process. Calculation of apportionments will be completed as follows:

- 3.1 <u>CVP RECs</u>:
 - 3.1.1 SNR will calculate the percentage contribution from each unit/project registered with WREGIS to the amount of Base Resource generated each month.
 - 3.1.2 SNR will then calculate the amount of Base Resource NCPA received each month based on the sum of power scheduled to NCPA from its Base Resource percentage and its contribution to or allocation from the Hourly Exchange Program.

3.1.3 Finally, SNR will apply NCPA's actual month's Base Resource percentage as determined in Subsection 3.1.2 above to the CVP RECs associated with that month's Base Resource from each unit/project as determined in Paragraph 3.1.1 to determine NCPA's apportionment of CVP RECs for each month in calendar year 2022.

3.2 Unclaimed RECs:

- 3.2.1 After performing step 3.1.2, SNR will normalize the participants' Base Resource percentages for Unclaimed RECs by dividing each participant's Base Resource percentage by the total of all participants' Base Resource percentages.
- 3.2.2 SNR will then apply NCPA's normalized Base Resource percentage to the total Unclaimed RECs for each month in 2022 to determine NCPA's apportionment of Unclaimed RECs.
- 3.2.3 NCPA acknowledges that its normalized percentage, used for the apportionment of Unclaimed RECs, may change during the term of this LOA depending on the number of participants.

3.3 Stampede RECs:

Stampede RECs will be held in WREGIS until SNR can determine the annual amount of RECs due to Truckee Donner Public Utility District (TDPUD) and City of Fallon (Fallon) before allocating the Stampede RECs to others. Once SNR has determined the percentage of the Stampede RECs to be provided to TDPUD and Fallon due to their contributions to the Washoe Project, the remaining Stampede RECs will be apportioned to the participants pursuant to the procedures provided in Subsections 3.1 and 3.2 above.

- 3.4 SNR will transfer NCPA's CVP and Unclaimed RECs apportionments through WREGIS after the RECs have been created by WREGIS.
- 3.5 SNR will transfer Stampede RECs apportionments through WREGIS after the TDPUD and Fallon percentage has been determined and the Stampede RECs have been created by WREGIS.
- 4. Nontransferable:

NCPA hereby acknowledges and agrees that RECs associated with SNR power are neither transferable nor available for resale by NCPA.

- 5. Compensation to SNR:
 - 5.1 SNR's costs to administer the REC Program will be paid by those participants receiving an apportionment of SNR's RECs through WREGIS. Each

participant's costs will be determined based on the participant's *pro rata* share of RECs. SNR's costs will include, but are not limited to, the following:

- 5.1.1 SNR's costs to join WREGIS as an account holder;
- 5.1.2 SNR's costs for WREGIS to create RECs;
- 5.1.3 SNR's costs for transferring RECs from its WREGIS account to participant's WREGIS account;
- 5.1.4 Any other costs SNR may incur for its participation in WREGIS to operate this program; and
- 5.1.5 Any other costs SNR may incur from a third-party due to providing services hereunder.
- 5.2 These costs will be provided as a line item on NCPA's monthly electric service bill.
- 6. General Power Contract Provisions:

The General Power Contract Provisions dated September 1, 2007, are attached hereto and are hereby made a part of this LOA the same as if they had been expressly set forth herein.

- 7. <u>Term</u>:
 - 7.1 This LOA must be signed by NCPA on or before July 1, 2022, in order for NCPA to participate in SNR's 2022 REC Program.
 - 7.2 This LOA shall become effective on July 1, 2022, and shall terminate on July 31, 2023; <u>provided</u> that either NCPA or SNR may terminate this LOA upon thirty (30) days advance written notice. All obligations created under this LOA while in effect shall remain until satisfied.
- 8. The Parties agree that this LOA may be executed by handwritten signature or digitally signed via DocuSign or other agreeable electronic signature application. An electronic or digital signature is the same as a handwritten signature and shall be considered valid and acceptable.
- 9. This LOA may be executed in any number of counterparts and, upon execution and delivery by each Party, the executed and delivered counterparts together shall have the same force and effect as an original instrument as if all Parties had signed the same instrument. Any signature page of this LOA may be detached by any counterpart of this LOA without impairing the legal effect of any signatures thereon and may be attached to another counterpart of this LOA identical in form hereto, by having attached to it one or more signature pages.

If you agree with terms and conditions of this LOA, please sign and date the LOA via DocuSign. Once NCPA has signed the LOA, DocuSign will send the executed LOA to all the parties. If you have any questions, please contact Ms. Sandee Peebles at (916) 353-4454 or peebles@wapa.gov.

Sincerely,

Arun K. Sethi Vice President of Power Marketing for Sierra Nevada Region

NORTHERN CALIFORNIA POWER AGENCY

By:	
Name:	
Title:	
Address:	
Date:	



COMMISSION MEETING DATE: May 26, 2022

SUBJECT: Admission of the City of Shasta Lake as a Participant in the Power Management and Administrative Services Agreement

AGENDA CATEGORY: Consent

FROM:	Tony Zimmer 72	METHOD OF SELECTION:			
	Assistant General Manager	N/A			
Division:	Power Management	If other, please describe:			
Department:	Power Management				

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

RECOMMENDATION:

Adopt Resolution 22-65 approving an amendment to Schedule 1 of the Power Management and Administrative Services Agreement (PMASA) to include the City of Shasta Lake as a Participant to the PMASA, upon the City of Shasta Lake's delivery to NCPA of an executed counterpart to the PMASA.

BACKGROUND:

Pursuant to Section 7.1 of the PMASA, as such may be amended from time to time, subsequent to the initial effective date of the PMASA, a Member of NCPA who is not a Participant to the PMASA shall become a Participant by executing the PMASA, and such Member will become a Participant effective on the date of its delivery to NCPA of an executed counterpart to the PMASA. The City of Shasta Lake has expressed its desire to become a Participant to the PMASA, and the City of Shasta Lake will become a Participant to the PMASA, and the City of Shasta Lake will become a Participant to the PMASA of an executed counterpart to the PMASA.

Upon the City of Shasta Lake's delivery to NCPA of an executed counterpart to the PMASA, Schedule 1 of the PMASA (List of Participants) will need to be amended to include the City of Shasta Lake as a Participant¹. Pursuant to Section 11.6.2 of the PMASA, any amendments to the PMASA Schedules, including Schedule 1 of the PMASA, shall take effect after being approved by the Commission in a manner consistent with the voting procedures set forth in Section 5.4 of the PMASA.

FISCAL IMPACT:

Work associated with development of an amendment to Schedule 1 of the PMASA was undertaken pursuant to approved Power Management budget categories, and costs associated with this effort are allocated 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:

- Resolution 22-65

¹ The current Participants to the PMASA are the following Members: Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Roseville, Santa Clara, Redding, and Ukiah, and Port of Oakland, Plumas-Sierra Rural Electric Cooperative, and the San Francisco Bay Area Rapid Transit District.

RESOLUTION 22-65

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING ADMISSION OF THE CITY OF SHASTA LAKE AS A PARICIPANT IN THE POWER MANAGEMENT AND ADMINISTRATIVE SERVICES AGREEMENT

(reference Staff Report #176:22)

WHEREAS, pursuant to Section 7.1 of the Power Management and Administrative Services Agreement (PMASA), as such may be amended from time to time, subsequent to the initial effective date of the PMASA, a Member of NCPA who is not a Participant to the PMASA shall become a Participant by executing the PMASA, and such Member will become a Participant effective on the date of its delivery to NCPA of an executed counterpart to the PMASA; and

WHEREAS, the City of Shasta Lake has expressed its desire to become a Participant to the PMASA, and the City of Shasta Lake will become a Participant to the PMASA upon its delivery to NCPA of an executed counterpart to the PMASA; and

WHEREAS, upon the City of Shasta Lake's delivery to NCPA of an executed counterpart to the PMASA, Schedule 1 of the PMASA (List of Participants) will need to be amended to include the City of Shasta Lake as a Participant¹; and

WHEREAS, pursuant to Section 11.6.2 of the PMASA, any amendments to the PMASA Schedules, including Schedule 1 of the PMASA, shall take effect after being approved by the Commission in a manner consistent with the voting procedures set forth in Section 5.4 of the PMASA; and

WHEREAS, work associated with development of an amendment to Schedule 1 of the PMASA was undertaken pursuant to approved Power Management budget categories, and costs associated with this effort are allocated 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 and approves an amendment to Schedule 1 of the PMASA to include the City of Shasta Lake as a Participant to the PMASA, upon the City of Shasta Lake's delivery to NCPA of an executed counterpart to the PMASA.

¹ The current Participants to the PMASA are the following Members: Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Roseville, Santa Clara, Redding, and Ukiah, and Port of Oakland, Plumas-Sierra Rural Electric Cooperative, and the San Francisco Bay Area Rapid Transit District.

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

	Vote	Abstained	<u>Absent</u>
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto		5.	
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

DAVID HAGELE CHAIR

ATTEST: CARY A. PADGETT ASSISTANT SECRETARY



COMMISSION MEETING DATE: May 26, 2022

SUBJECT: Admission of the City of Shasta Lake as a Participant in the Amended and Restated Facilities Agreement

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

Adopt Resolution 22-66 approving an amendment to Schedule 1 of the Amended and Restated Facilities Agreement (FA) to include the City of Shasta Lake as a Participant to the FA, upon the City of Shasta Lake's delivery to NCPA of an executed counterpart to the FA.

BACKGROUND:

Pursuant to Section 15.1 of the FA, as such may be amended from time to time, subsequent to the initial effective date of the FA, a Member of NCPA who is not a Participant to the FA shall become a Participant by executing the FA, and such Member will become a Participant effective on the date of its delivery to NCPA of an executed counterpart to the FA. The City of Shasta Lake has expressed its desire to become a Participant to the FA, and the City of Shasta Lake will become a Participant to the FA upon its delivery to NCPA of an executed counterpart to the FA.

Upon the City of Shasta Lake's delivery to NCPA of an executed counterpart to the FA, Schedule 1 of the FA (List of Participants) will need to be amended to include the City of Shasta Lake as a Participant¹. Pursuant to Section 18.7.2 of the FA, any amendments to the FA Schedules, including Schedule 1 of the FA, shall take effect after being approved by the Commission in a manner consistent with the voting procedures set forth in Section 3.6 of the FA.

FISCAL IMPACT:

Work associated with development of an amendment to Schedule 1 of the FA was undertaken pursuant to approved Power Management budget categories, and costs associated with this effort are allocated 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:

- Resolution 22-66

¹ The current Participants to the FA are the following Members: Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Roseville, Santa Clara, Redding, and Ukiah, and Port of Oakland, Plumas-Sierra Rural Electric Cooperative, and the San Francisco Bay Area Rapid Transit District. The Turlock Irrigation District is also a Participant to the FA.

RESOLUTION 22-66

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING ADMISSION OF THE CITY OF SHASTA LAKE AS A PARICIPANT IN THE AMENDED AND RESTATED FACILITIES AGREEMENT

(reference Staff Report #177:22)

WHEREAS, pursuant to Section 15.1 of the Amended and Restated Facilities Agreement (FA), as such may be amended from time to time, subsequent to the initial effective date of the FA, a Member of NCPA who is not a Participant to the FA shall become a Participant by executing the FA, and such Member will become a Participant effective on the date of its delivery to NCPA of an executed counterpart to the FA; and

WHEREAS, the City of Shasta Lake has expressed its desire to become a Participant to the FA, and the City of Shasta Lake will become a Participant to the FA upon its delivery to NCPA of an executed counterpart to the FA; and

WHEREAS, upon the City of Shasta Lake's delivery to NCPA of an executed counterpart to the FA, Schedule 1 of the FA (List of Participants) will need to be amended to include the City of Shasta Lake as a Participant¹; and

WHEREAS, pursuant to Section 18.7.2 of the FA, any amendments to the FA Schedules, including Schedule 1 of the FA, shall take effect after being approved by the Commission in a manner consistent with the voting procedures set forth in Section 3.6 of the FA; and

WHEREAS, work associated with development of an amendment to Schedule 1 of the FA was undertaken pursuant to approved Power Management budget categories, and costs associated with this effort are allocated 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 and approves an amendment to Schedule 1 of the FA to include the City of Shasta Lake as a Participant to the FA, upon the City of Shasta Lake's delivery to NCPA of an executed counterpart to the FA.

¹ The current Participants to the FA are the following Members: Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Roseville, Santa Clara, Redding, and Ukiah, and Port of Oakland, Plumas-Sierra Rural Electric Cooperative, and the San Francisco Bay Area Rapid Transit District. The Turlock Irrigation District is also a Participant to the FA.

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

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

DAVID HAGELE CHAIR

ATTEST: CARY A. PADGETT ASSISTANT SECRETARY

NCPA Resolution 22-66



COMMISSION MEETING DATE: May 26, 2022

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

AGENDA CATEGORY: Discussion/Action

FROM:	Marc Pelletier 🕠	METHOD OF SELECTION:
	Acting Assistant General Manager	Select a method.
Division:	Generation Services	If other, please describe:
Department:	Generation Services	

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

RECOMMENDATION:

Approve Resolution 22-58 for the NCPA 2022 Wildfire Mitigation Plan, with updated revisions based on the qualified independent evaluators recommendations.

BACKGROUND:

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

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

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

FISCAL IMPACT:

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

ENVIRONMENTAL ANALYSIS:

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

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

May 26, 2022 Page 3

COMMITTEE REVIEW:

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

Respectfully submitted,

45

RANDY S. HOWARD General Manager

Attachments (2):

- Resolution 22-58
- Northern California Power Agency Wildfire Mitigation Plan 1.3

RESOLUTION 22-58

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

(reference Staff Report #167:22)

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

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

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

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

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

	PASSED, ADOPTED and APPROVED this	day of	, 2022	2, by the following vot	te
on roll	call:				

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

ATTEST:

CARY A. PADGETT ASSISTANT SECRETARY

NORTHERN CALIFORNIA POWER AGENCY WILDFIRE MITIGATION PLAN 2022

VERSION 1.3

VERSION HISTORY

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

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

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

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

TABLE OF CONTENTS

Executiv	ve Summary	5
1. Ove	erview	6
1.A.	Policy Statement	6
1.B.	Purpose of the Wildfire Mitigation Plan	6
1.B.	1. Coordination with Local Agencies	7
1.C.	Organization of the Wildfire Mitigation Plan	9
2. Go	als	10
2.A.	Minimizing Sources of Ignition	10
2.B.	Resiliency of the Electric Grid	10
2.C.	Identifying Unnecessary or Ineffective Actions	
3. Role	es and Responsibilities	11
3.A.	Utility Governance Structure	11
3.B.	Wildfire prevention organizational responsibilities	12
3.C.	Wildfire Response, Communication, and Recovery	12
3.D.	Coordination with Water Utilities/Department	13
3.E.	Coordination With Communication Infrastructure Providers	14
3.F.	Mutual Aid Agreements	14
4. Wild	dfire Risks and Drivers	15
4.A.	Risks Associated With Topographic and Climatological Factors	15
4.B.	Risks related to design, operation, and MAINTENANCE	17
4.C.	Changes to CPUC Fire Threat Map	17
4.C	2.1. Map Comparisons and Updates	
4.C	2.2. Fire Zone Review Process	
5. Wile	dfire Preventative Strategies	20

5.A.	Preventative Strategies and Programs	20
5.B.	Potential Climate Change Effects	21
5.C.	Potential Climate Change Risk Management Impacts	22
5.D.	Tree Mortality	22
5.E.	Vegetation Management	
5.F.	Inspections	24
5.G.	Fire Prevention, Safety, Emergency Response training	25
5.H.	Reclosing Policy	25
5.1.	De-energization	26
5.J.1	1. Impacts to Public Safety	26
5.J.2	2. Customer Notification Protocols	26
6. Left	Blank	27
7. Rest	toration of Service	
7.A.	Metrics and Assumptions for Measuring Plan Performance	
Mel	tric 1: Fire Ignitions	
Mel	tric 2: Wires Down	28
Met	tric 3: FALL IN HAZARD TREES IGNITIONS	28
7.B.	Impact of Metrics on Plan	29
7.C.	Monitoring and Auditing the Plan	29
7.D.	Identifying and Correcting Deficiencies in the Plan	29
7.E.	Monitoring the Effectiveness of Inspections	
8. Inde	ependent Auditor	31
APPEND	DIX 1 – FIRE RISK ASSESSMENT MAPS	32
APPENC	DIX 2 – INDEPENDENT EVALUATOR REPORT 2020	34
APPEND	DIX 3 – INDEPENDENT EVALUATOR REPORT 2021	37
APPEND	DIX 4 – INDEPENDENT EVALUATOR REPORT 2022	61
Revision	n History	80

ATTACHMENT A - PUC 8387 (B) REQUIREMENTS TABLE	.81
ATTACHMENT B – WSAB RECOMMENDED ELEMENTS TABLE	.83
ATTACHMENT C – WILDFIRE RISK ELEMENTS AND CONTROLS	.85

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.

OVERVIEW

1.A. POLICY STATEMENT

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

1.B. PURPOSE OF THE WILDFIRE MITIGATION PLAN

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

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

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

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

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

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

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

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

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

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

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

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.

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.

Board (WSAB) developed template for review of POU WMPs

1.C. ORGANIZATION OF THE WILDFIRE MITIGATION PLAN

This WMP includes the following elements:

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

2. GOALS

2.A. MINIMIZING SOURCES OF IGNITION

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

2.B. RESILIENCY OF THE ELECTRIC GRID

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

2.C. IDENTIFYING UNNECESSARY OR INEFFECTIVE ACTIONS

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

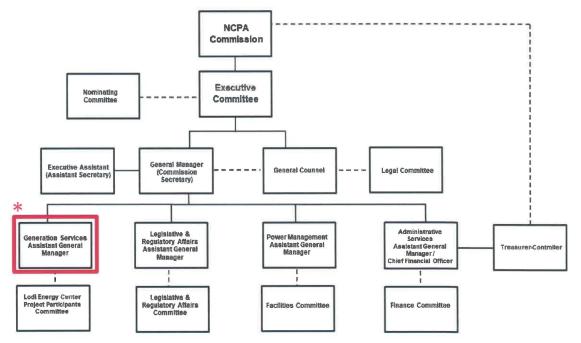
NCPA's current and planned wildfire risk mitigation activities will be formally reviewed annually according to this WMP regarding the effectiveness of ongoing practices, investigation of new technologies, and changing climate and ground conditions to continually prioritize the highest value activities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

3. ROLES AND RESPONSIBILITIES

3.A. UTILITY GOVERNANCE STRUCTURE

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

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



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

3.B. WILDFIRE PREVENTION ORGANIZATIONAL RESPONSIBILITIES

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

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

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

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

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

Additionally, all NCPA employees are responsible for:

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

3.C. WILDFIRE RESPONSE, COMMUNICATION, AND RECOVERY

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

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

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

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

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

The NCPA Dispatch Center is the main point of contact for PG&E on any public safety power shutoff (PSPS) notification affecting any of NCPA's or members' generation and member loads. NCPA does not have a defined service territory however the NCPA Dispatch Center's responsibility is to pass along relevant PG&E PSPS notification to affected members based on phone messages or emails received from PG&E through its Everbridge mass notification system. The NCPA Dispatch Center will also follow up on the Everbridge PSPS notifications with information on any planed 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 Emergency Association, which plays a key role in ensuring communications between utilities during emergencies and maintains a mutual aid agreement for its members. As a member of the American Public Power Association (APPA), NCPA and its members can also authorize APPA mutual aid agreements.

4. WILDFIRE RISKS AND DRIVERS

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

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

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

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

4.A. RISKS ASSOCIATED WITH TOPOGRAPHIC AND CLIMATOLOGICAL FACTORS

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

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

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

Several of the risk drivers are interrelated:

- **Extended drought**: Extended drought periods result in multiple stress factors for vegetation: dry trees and brush, higher susceptibility to disease and insects, easier ignition, faster burn rate, etc.
- Vegetation type: Fire risk is partially dependent upon vegetation type. Some vegetation burns quickly (e.g. dry grass), while other types burn hotter (e.g. hardwood trees such as oak). Each vegetation type presents its own unique challenges for vegetation management and control.
- Vegetation density: Vegetation density directly affects wildfire hazards. Dense vegetation generally represents the highest hazard level, while sparse vegetation density is substantially lower risk. Vegetation density is often associated with weather conditions, local micro-climates, and vegetation type.
- Weather: Weather conditions include precipitation, humidity, storms, and winds. Each factor affects wildfire risks. Lightning strikes associated with thunderstorms or dry lightning are a natural cause of wildfires.
- **High winds**: High winds drive wildfires. They also down trees and sometimes down power lines. In turn, downed power lines are potential ignition sources and the documented cause of some major wildfires in California.
- **Prevailing Winds:** NCPA monitors prevailing winds directions and speeds, differentiated by season, along with average weather conditions by season using NCPA real-time observations noting disturbing local weather. Live data is used with the fire maps located in Appendix 1. PG&E's Weather Awareness website is a resource for real-time conditions: https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/psps-weather-map.page?WT.mc_id=Vanity_weather. This information is used in communication and aids to analyze wildfire situations. In addition, prevailing wind patterns and their effect on transmission conductors due to cyclic loading are taken into account during annual Transmission asset inspections conducted in accordance with NCPA's NERC FAC-003 compliance procedure GM-305.
- **Terrain**: Topographic features and terrain affect wildfire migration and area-specific risks. Fires generally burn uphill, especially within steep canyons. Wind-driven upslope and upcanyon 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
- **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.
 - Geothermal Effluent Pump System 21 kV Line: This 6-mile distribution line is in a Tier 3 fire threat zone. This line was largely rebuilt following damage caused by the 2017 Valley Fire. The wood pole line has construction framing typical to distribution construction. In addition to typical maintenance and monitoring of the pole line and down guy structural and foundational health, NCPA works with Cal Fire and Calpine to coordinate vegetation removal and clearance work, in excess of the requirements for rural distribution circuits.
- (2) Emergency Operating Procedures: NCPA uses emergency operating procedures to safely react to wildfire fire events and help guide employees. In addition to annual evaluation of

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

- (3) Vegetation Management Program: NCPA has developed and implemented a Transmission Vegetation Management Program (TVMP) to establish the vegetation maintenance requirements for each facility to achieve reliability of its generation interconnection system. The NCPA document, Generation Services Common Procedure GS-305: Transmission Vegetation Management Program, defines NCPA procedures for vegetation management. The full description of this program is described in Section 5.E.
- (4) Asset documentation: NCPA has current facility documentation including geographically referenced facility locations (appendix 1) and current facility drawings, materials lists, and design criteria. This documentation has been coordinated with adjacent asset owners (PG&E and Calpine) to ensure completeness of maintenance actions and track design features (lightning arrestors) that minimize risks of the lines causing an ignition.

NCPA directly participated in the development of the CPUC's Fire-Threat Map,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:

- 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

¹ Adopted by CPUC Decision 17-12-024.

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

- Vegetation adapts, with plant migration into different areas
- Vegetation dries out during droughts, presenting increased fire danger
- Stressed vegetation is more susceptible to insect infestations, damaging trees, or accelerating mortality
- Thunderstorms present lighting 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/frapprojects/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, costeffective and socially responsible solutions to vegetation control near the NCPA generation interconnection facilities. Document the process for the annual vegetation work plan for applicable power lines.
- Maintain public and worker safety, maintain compliance with NERC standards and other regulatory and legal requirements, provide reliable electric service that allows for operational flexibility, and promote environmental stewardship and habitat enhancement.
- Potential improvements to its programs include increasing the frequency and scope of aerial lidar surveys on its transmission and distribution facilities, and a continued emphasis on identification and timely removal of danger and hazard trees that threaten overhead transmission and distribution lines. NCPA's asset management system allows potential improvement to be evaluated as observations and comments are made when work orders for maintenance items are executed.

5.F. INSPECTIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5.H. RECLOSING POLICY

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

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

5.1.DE-ENERGIZATION

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

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

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

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

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.

7. **RESTORATION OF SERVICE**

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

7.A. METRICS AND ASSUMPTIONS FOR MEASURING PLAN PERFORMANCE

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

METRIC 1: FIRE IGNITIONS

NCPA will track fire ignitions in their territory as follows:

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

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

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

METRIC 2: WIRES DOWN

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

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

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

METRIC 3: FALL IN HAZARD TREES IGNITIONS

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

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

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

7.B. IMPACT OF METRICS ON PLAN

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

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

7.C. MONITORING AND AUDITING THE PLAN

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

7.D. IDENTIFYING AND CORRECTING DEFICIENCIES IN THE PLAN

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

7.E. MONITORING THE EFFECTIVENESS OF INSPECTIONS

Line inspections for NCPA fall into two categories:

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

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

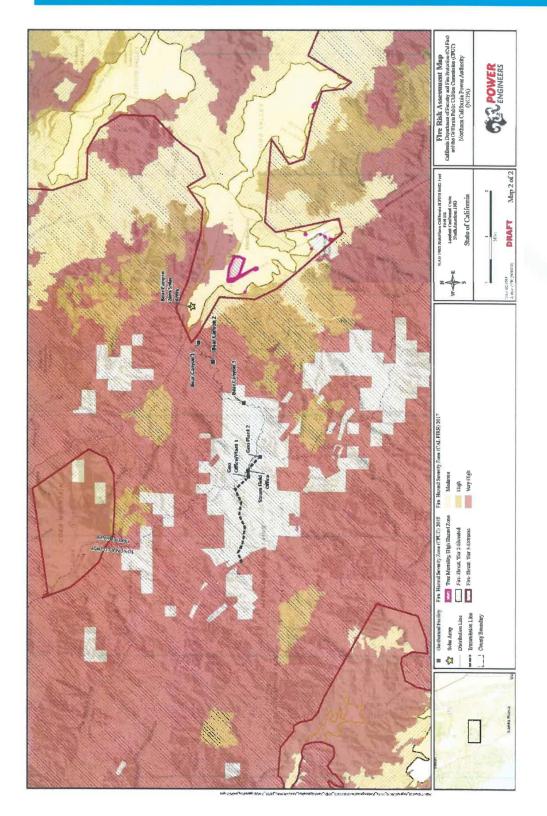
Northern California Power Agency Wildfire Mitigation Plan Version 1.3

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.

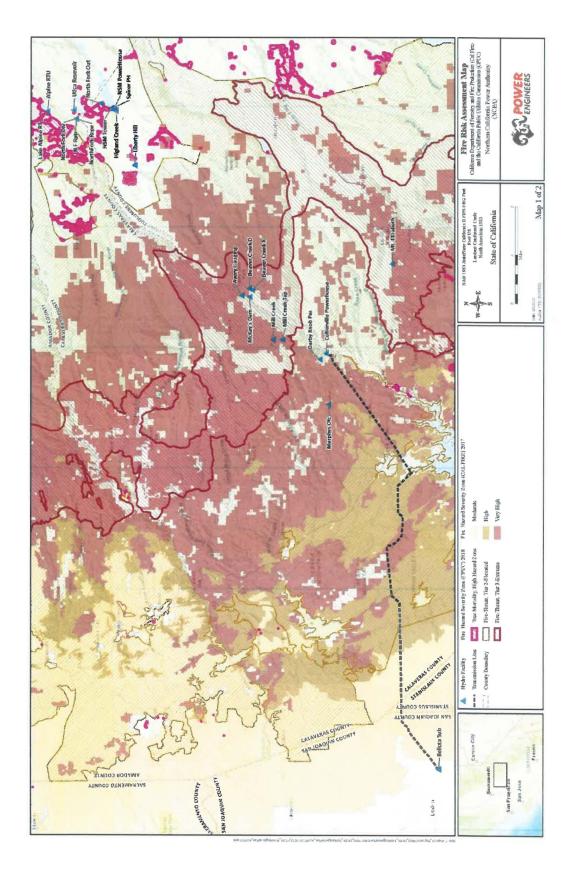
In 2020, NCPA competitively bid and contracted with a qualified independent evaluator, Dudek, with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of this WMP. The independent evaluator issued a report (that is attached as an appendix 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

Northern California Power Agency Wildfire Mitigation Plan Version 1.3



APPENDIX 2 – INDEPENDENT EVALUATOR REPORT 2020

AST LINCOLN WAL SCIEL 20 ANTIUNN CALIFORNIA 56502 TEDIO BALLANIO & SCO BALL250

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 Wildline 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 (ALI 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.
- \$387(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.
- \$387(b)(N)(ii): Provide clarification and detail regarding plan implementation, review, and plan deficiency correction responsibility.
- \$387(b)(N)(III): Clarify line/equipment inspection responsibility, timeframes, work plan approach, and target inspection goals, and performance matrics.

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

DUDEK

1

12108.02 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,

Sort W. Eckenst

Scott Eckardt, RPF Project Manager

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

DUDEK

2

12108.02 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.
В	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.
н	Plans for vegetation management.
li i	Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.
l	A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughour 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 loca 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.
к	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.

DUDEK

A-1

12108.02 April 2020

APPENDIX 3 - INDEPENDENT EVALUATOR REPORT 2021

853 LINCOLN WAY, SLITE 205 AUBURN CALIFORNIA 95603 1 539 887 8500 F 539 887 1250

May 3, 2021

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

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

I. INTRODUCTION

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

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

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

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

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

DUDEK

1

Independent Evaluation Report of Northern California Power Agency's Wildfire Mitigation Plan

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

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

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

II. WILDFIRE MITIGATION PLAN REQUIREMENTS

A. Senate Bill 901

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

B. AB 1054 & AB 111

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

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

DUDEK

2

Independent Evaluation Report of Northern California Power Agency's Wildfire Mitigation Plan

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.

DUDEK

3

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:

- <u>Statutory Compliance</u>: 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.

DUDEK

4

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

DUDEK

5

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 lineignited 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 (GE0-646) 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

DUDEK

6

Independent Evaluation Report of Northern California Power Agency's Wildfire Mitigation Plan

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,

Daugar V. Visla

Dougias 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 Scott Eckardt, Dudek

CC:

DUDEK

7

Attachment A Required WMP Elements under PUC Section 8387(b)

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 Strategles 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.

DUDEK

A-1

12108.04 Мву 2021

Sec. 7.B. Impact of Metrics on Plan. Sec. 5.I. Reclosing Policy. Sec. 5.J. De- Energization. Sec. 5.J.1. Impacts to Public Safety.	Include discussion of application of previous metrics. No reference is included regarding the impacts on the WMP from past metrics. Enhance section to clarify role as wholesaler vs. retailer. Reclosers are not employed. Impacts to Public	NCPA - Complete. Added "2020 WMP Impact Due to Metrics" along with establishing metric summaries to review. NCPA - Complete. Changed "employ" to "own."	
Policy. Sec. 5.J. De- Energization. Sec. 5.J.1. Impacts to	wholesaler vs. retailer. Reclosers are		Meets requirements
Public Sarety.	Safety is addressed; any impacts would be addressed by providers of PSPS. Any de-energization is coordinated with Cal Fire and PG&E.		as modified.
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.
Sec. 5.F. Vegetation	Meets requirements.	NA	Meets requirements.
C N P	ustomer latification rotocols. ec. 5.F.	ec. 5.J.2. Enhance section to clarify role as wholesaler vs. retailer. As a wholesale provider NCPA has no retail customer; any impacts would be addressed by providers of PSPS.	ec. 5.1.2. Enhance section to clarify role as wholesaler vs. retailer. As a wholesale provider NCPA has no rotocols. NCPA - Complete. Added wholesaler vs retailer clarification. retail customers; any impacts would be addressed by providers of PSPS. NCPA - Complete. Added wholesaler vs retailer clarification. ec. 5.F. Meets requirements. NA

DUDEK

B-2

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
 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 Cilmatological 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.

DUDEK

B-3

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-645) 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.

DUDEK

B-4

WMP Required Element per PUC Sec	NCPA WMP	IE's Assessment of WMP based on	Responsible Party Revisions	IE's 2nd Assessment
8387(b)(2)	Section	PUC Sec. 8387 Requirements		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.

B-5

DUDEK

Attachment B

Recommended WMP elements per WSAB 2020 Guidance Advisory Opinion

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				and an a state
 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/biddin g-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.

DUDEK

8-1

WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WIVIP 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 	Nat 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.

DUDEK

8-2

WSAB 2020 WMP Guidance	NCPA WMP	IE's Initial Assessment of WMP	Responsible Party - revisions	IE's 2nd Assessment of
Recommendations	section	based on WSAB Guidance Recommendations		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., 3.8., 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.
 Plan Structure – independent evaluat 			and the second second second second	the second second
 a) IEs should perform a robust evaluation of the contents and substance of the POUs 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.

DUDEK

8-3

WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's initial Assessment of WMP based on WSAB Guidance	Responsible Party - revisions	IE's 2nd Assessment of WMP
AND WATER THE ARE CANTON	67685 67975.7	Recommendations		*****
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 – PSP5 shutoffs	in sector sector sector			
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.

DUDEK

8-4

WSAB 2020 WMP Suldance 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 & Dudek - 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.

DUDEK

B-5

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.

DUDEK

8-6

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	Not included.	Include risks associated with design	NCPA - Complete, Added	Meets WSAB
associated with system design and construction such as topography and location near a HFTD of another utility	Wildfire risks are identified in Sec. 4.A., but there is no reference to design and construction.	and construction as requested.	"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."	recommendation.

DUDEK

8-7

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 awarer				
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/wildres/psp-	Meets WSAB recommendation.

DUDEK

8-8

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 alds to analyze wildfire	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.	situations." 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. S.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.

DUDEK

8-9

WSAB 2020 WMP Guidance Recommendations	NCPA WMP section	IE's Initial Assessment of WIVIP 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 rec	uirements			
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 TV/MP - 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 - personne	I 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.

DUDEK

B-10

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 consuitants (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 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.

DUDEK

B-11

Attachment A Required WMP Elements under PUC Section 8387(b)

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.

DUDEK B12

Northern California Power Agency Wildfire Mitigation Plan Version 1.3

APPENDIX 4 – INDEPENDENT EVALUATOR REPORT 2022

DUDEK NATI VAN KARLO AVENNE, NE TE INI DAMLAND, CALEDRINA HARTE E SELARI, 1980 TESTEKE 1984

April 14, 2022

12108.07

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

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

1 Introduction

The Northern California Power Agency (NCPA) contracted with Dudek to engage in an independent evaluation of its Wildfire Mitigation Plan (WMP). This independent evaluation report (Report) describes the technical review and evaluation of the WMP prepared by Dudek, performed in February through April2022, 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.

DUDEK.COM

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.

DUDEK

12106.07 APRN. 2022

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:

- <u>Statutory Compliance</u>: 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.
- <u>Fulfillment of Wildfire Safety Advisory Board Guidance</u>: 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.

DUDEK

12108.07 APRIL 2022 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 of 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.

DUDEK

12108.07 APRIL 2022 4 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 wildlire 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

DUDEK

APRIL 2022

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)(j): 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 G 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)(il): 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 lineignited wildfire, NCPA has incorporated the High Fire-Threat District into its construction, inspection, maintenance, repair, and clearance practices, where applicable.

DUDEK

APRIL 2022

à

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. Plen 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

DUDEK

APRIL 2022

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 abut 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 G0 95 standards for their inspections. The WSAB comment is that the WMPs do not state if the POU are meeting the minimum standards of G0 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 G0 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 G0 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)

DUDEK

APRIL 2022 3

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-milelong 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.

DUDEK

APRN. 2022 9

TO JEREMY LAWSON SUBJECT 2023 NCPA WILDFIRE MIT/SATION PLAN INDEPENDENT EVALUATOR'S REPORT

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.

DUDEK

12106.07 APRIL 2022 10 TO FERENY LAWSON SUBJECT 2022 NOPA WILDFIRE MITIGATION PLAN INDEPENDENT EVALUATOR'S REPORT

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

DUDEK

12109.07 APRIL 2022 11

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	Responsible Party Revisions
		Sec. 8387 Requirements	
(A): An accounting of the responsibilities of persons responsible for executing the plan.	Ser. 3.A Utility Governance Structure. Generation Services Assistant General Manager.	Acceptable	
8): 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 publicity 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 drane or helicopter surveys worth noting? Geothermal Drane. NCPA works with Cal Fire to manage and phase maintenance work to the line.
D): A description of the metrics the local publicly wheel 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	NCPA Update: Metrics reflect up to date. Good performance.
(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 aslequate 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.
UDEK			12109.07 APRIL 2022

APRIL 2022

12

TO JEREMY LAWSON SUBJECT 2022 NOPA WILDFIRE MITIGATION PLAN INDEPENDENT EVALUATOR'S REPORT

IE's Assessment of WMP based on PUC Sec. 8387 Requirements y. Acceptable.	Responsible Party Revisions
based on PUC Sec. 8387 Requirements y. Acceptable n. ublic	
n. ublic	
Acceptable.	
Section 5.E. 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 5.1 "Specific hazards addressed in the TVMF 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 o a potential hazard as a immediate mitigation priority (section 6.4.4), including addressing extent of condition."
Acceptable. The WMP does a good job of describing general inspection process. Details regarding the types of	
	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 Acceptable. The WMP Acceptable. The WMP does a good job of describing general inspection process. Details regarding the

DUDEK

12108.07 APRIL 2022 12

TO DEREMY LAWSON SUBJECT. 2022 FICPA WILDFIGE MITIGATION PLAN HIDEPENDENT EVALUATOR'S REPORT.

parts of the local publicly owned electric 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 identification of where the commission should expand a high-fire threat district based on new information or changes to the environment. (L): A methodology for identifying and presenting sec. 4.6. Enterprise-wide Sec. 4.6. Enterprise-wide Sec. 4.6. Enterprise-wide Sec. 4.6. Enterprise-wide Sec. 4.6. Enterprise-wide Sec. 4.6. Enterprise-wide Consider Acceptable. Attachment C has been added to provide an	والالاب المراقع والالالا والمحاط	2022		
(i): A list that identifies, describes, and prioritizes all liftler risks, and drivers for those risk; throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, poperation, and maintenance of Hollowing: (j): additional the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, poperation, and maintenance of Hollowing: (j): additional the local publicly owned electric utility's or electrical cooperative's service territory. Sec. 4. Wildfire Risks and Drivers. Sec. 4.A. Risks and good drivers for those risks, throughout the service territory both drivers associated with topographic and dimetalogical ratifies, (i) are rule different parts of the local publicly owned electric utility's or electrical cooperative's service territory. Sec. 4. C. Changes to CPUC risks specific to RCPA service territory are not described and the some NCPA specific risk drivers NCPA has added to Sec. 4. C. Changes to CPUC risks specific to RCPA service (k]: identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory. Sec. 4. C. Changes to CPUC risks specific risk drivers Acceptable, Consider creating a section is the Ware that collects the enterprise wide safety risk and wildfire-related risk. Acceptable, Consider creating a section is the Ware that collects the enterprise wide safety risk and wildfire-related risk. (M): A statement of how the local publicly owned lectric utility or electrical cooperative's service the enterprise wide safety risk and wildfire-related risk. Sec. 7. Restoration of Service. Acceptable, Consider creating a section is the Ware that collects the enterprise wide safety risk and wildfire-related risk.		2022 NCPA WMP	Assessment of WMP based on PUC	The second statements are apprended to the second
publicly owned electric utility's or electrical Fire Threat Map cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identified in a commission fire threat fire Threat Map should expand a high-fire threat district based on new information or changes to the environment. (L): A methodology for identifying and presenting Sec. 4.6. Enterprise-wide Acceptable. Attachment C has been enterprise wide safety risk and wildfire-related risk. Sec. 4.6. Enterprise-wide Acceptable. Attachment C has been (II): A methodology for identifying and presenting sec. 4.6. Enterprise-wide Acceptable. Attachment C has been (II): A methodology for identifying and presenting section in the associated controls added to provide an section in the associated controls WMP that evaluations within the collects the sections of the WMP, entroprise wide safety elements described (IM): A statement of how the local publichy owned Sec. 7. Restoration of Service. Acceptable Acceptable	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 dimatological risk factors throughout the different parts of the local publicly owned electric utility's or	Drivers. Sec. 4.A. Risks Associated with Topographical and	Requirements 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 woold be beneficial to add some NCPA specific risk	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
(L): A methodology for identifying and presenting enterprise wide safety risk and wildfine-related risk. Sec. 4.8. Enterprise-wide Safety Risks. Acceptable. Attachment C has been oreating a index of risks and their section in the evaluations within the collects the safety elements described throughout the plan. Acceptable. Attachment C has been added to provide an oreating a index of risks and their section in the evaluations within the sections of the WMP. (M): A statement of how the local publicly owned electric utility or electrical cooperative will restore Sec. 7. Restoration of Service. Acceptable. Attachment C has been added to provide an oreating a index of risks and their section in the evaluations within the sections of the WMP.	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	-	Acceptable	
(M): A statement of how the local publicly owned Sec. 7. Restoration of Service. Acceptable electric utility or electrical cooperative will restore	{L}: A methodology for identifying and presenting		Consider creating a section in the WMP that collects the enterprise wide safety elements described throughout the	index of risks and their associated controls evaluations within the
	electric utility or electrical cooperative will restore	Sec. 7. Restoration of Service.		

TO: JEREMY LAVISON

SUBJECT- 2022 NICRA WILDFIRE MITIGATION PLAN INDEPENDENT EVALUATOR'S REPORT.

	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.

DUDEK

12108.07 APRIL 2022

15



CANLARD, CALIFORNIA (1943)

Attachment B: WSAB Guidance Recommendations Chart

		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
she Board recommended use of an upfront template containing key information about utility's service area, including size, number of customers, type of customers, basic copography and weather data, asset mbk (in terms of underground versus overhead lines), and interaction with High Fire Threat Districes (HFTD) and Public Safety Power Shutoffs (PSPS).	Section 1	Fully completed.	n/a	Complete
An index that showed where each of the starutory 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>revaluate</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 rasiliency of the grid in their WMP.	See Attachment 8	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 choses.	Section 3	The WMP provides a general overview of the NCPA's program. The details the WSAS is looking for are found in the TVMP plan.	See Attachment 8	Complete

TO URREAM LANCOON U.B. ECT. 2022 FICTA WELLFREIMENSATION FUAN INDET SALLENT. ENALUMTOR'S REFORM

		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
information about the installation of and use of situational awaraness technologies to better understand wildfin risk drivers, particularly through collaborative activities and shared data.	N/A	There is no description in the WAAP about the installation or use situational awaraness technology in NCPA's service territory.	See Attachment 8	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 WMAP 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 closumstances 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 IRIE guidelines for vegetation mainterance along the interconnects between generation facilities.	See Attachment 8	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	Saction 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 abut a Tier 2 or Tier 3 HFTD?	N/A	Not specifically addressed in the WMP	See Attachment 8	Complete

DUDEK

12108.07 MARCH 2022

TW AREIN LAWSON

SUDJECT, 2022 DICALMILDRIFE MINILATION, VAN MISEPENDENT EVAL/ATURCI REPORT

		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
ow does the utility assess its risks associated ith system design and construction?	Section 4 & 5	The WMP has a general overview of how NOPA evaluates its assets based on the identified wildfise risk drivers.	See Attachment B	Complete
n what areas does the utility consider going bove and beyond G.O. 95 or other General Irder 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
VMP Metrics measure something that is adpful for progress when met as expected, ind when not meeting the metric creates ension 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
ne WSAB requested that WMPs include a mail amount of additional context iformation regarding public input and oproval 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

DUDEK

12108.07 MARCH12022

REVISION HISTORY

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

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

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

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

ATTACHMENT A - PUC 8387 (B) REQUIREMENTS TABLE

Attachment A: Index of Required Element Location in WMP

2022 WMP Required Element per PUC Sec 8387(b)(2)	2022 NCPA WMP section
(A): An accounting of the 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.В.
(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

2022 WSAB Recommended Elements	2022 NCPA WMP section
(A): The WSAB has requested that public owned utilities include a table that describes each of the PUC requirements and where each requirement can be found in the WMP. 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 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. NCPA has addressed specific equipment and operational practices to reduce the risk of wildfire within the service territory in section 5.A.of the WMP.

ATTACHMENT C - WILDFIRE RISK ELEMENTS AND CONTROLS

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

Northern California Power Agency Wildfire Mitigation Plan Version 1.3

Identify and Assess Wildfire Event Elements I	Fuel Ign		Implement Controls	Evaluate Controls (WMP Section
	1	Design and maintain Distribution and Transmission facilities in		3.C. Widfre Response,
		accordance with PG&E approved practices for wildiand fre		Communication and
Tree contact or downed conductor		prevention. De-energize facilities when needed during high		Recovery and 5.A.(4) Asset
during wind centered events		X wind/red fog conditions.	PG&E Greenbook Design Standards, Public Safety Power Shutoff (
		identify and remove dead and dving trees or imbs from area	Fear creenbook beign standards, Fubic salety Fower sharon p	Cocomentation.
Dead imbs or trees contacting				
Distribution lines		X adjacent to lines.	TVMP and Power Line Fre Prevention Field Guide (PLFPFG)	5.E. Vegetation Managemen
Increased tree mortality	х	X Identify and remove dead and dying trees from area adjacent	to Ir TVMP and FLFPFG	5.D. Tree Mortality
Trees encroaching on flashover distances		Identify and remove encroaching trees. De-energize facilities up	on TVMP and Emergency Operating Guidelines, Collerville Power	
to Transmission facilities		X CAL FIRE request.	House Bellota-Collierville 230 kV Lines (PM-201)	5.1. De-Energization
Fal-In trees resulting from landsides or				5.B. Potentia Cimate Chang
trunk failures		X Routine inspections and non-routine incidental observation.	PLEPEG. Sections 12-19.	Effects
ROUK (GEORGE		A ROUTE TRESPONDENT ON TOPOUTE INCOMING TO DEPARTON.	FLEEPING, BOOLINIS 12-19.	the second s
				3.C. Widfre Response.
				Communication and
				Recovery: 5.A.(4) Asset
		Use of non-exputsion type fuses in High Fire Risk Areas (HFRA)		documentation; 5.H. Reciose
		protection of Transmission and Distribution circuits in accordance		Policy and 7. Restoration of
Fuses or conductors dropping molten metal		X with design standards, patroing of ines prior to re-energization.	PG&E Greenbook Design Standards, PSPS, PM-201 & GEO-646	Service.
roses or contractive a copping motor motor		antir doogir aronadada, partoring or inter provide to an egebran.	Annual tabletop EAP reviews with USFS, CAL FIRE, CHP, Calpine,	
Untimery five department response	х	Emergency Action Plan (EAP) Training and Coordination with loc agencies	 BLM, LACOSAN, Calaveras, Tuolumne & Aipine County Sheriffs, CA Dept. of Parks & Recreation 	1.B.1. Coordination with Loca Agencies
				5.A.(1) Facility Maintenance
				Program and 5.A.(2)
			Requiar patrols of Distribution lines, NERC FAC-003 Inspections in	Emergency Operating
Undetected equipment damage or failures		X Routine inspections and non-routine incidental observation	accordance with (IAW) NCPA procedure GM-305	Procedures
augered ednibi seus adninge a raisnes	2	Personnel training and notification to Dispatch center for	EAP training for all field personnel, Facility specific Emergency	Communication and
Uncoordinated wildfre response	х	coordinated response.	Response Plans (ERP)	Recovery
				5.G. Fre Prevention, Safety,
Staff unaware of wildfire risk or response	х	Personnel training and seasonal awareness reminders.	EAP training for all field personnel. Monthly safety meetings	Emergency Response Training
			Mutual aid agreements with member utilifies. California Utilities	
			Emergency Association (CUMA) and American Public Power	
		Leverage additional line personnel and resources via mutual ali		
Extended timetrame for fire event recovery		X agreements.	maintenance and repair of Transmission assets	3.F. Mutual Aid Agreements
		A Ogreenenia.	methoneneo eneroper or renamisor esters	O.T. MICHOG HIG HIGTOGETICTICS
Extended drought conditions;				
Underbrush damage from fires;			Roufine patrols of Distribution fines. NERC FAC-003 inspections in	5.C. Potential Cimate Chang
Vegetation stress or species changes	X	Routine inspections and non-routine incidental observation.	accordance with (IAW) NCPA procedure GM-305	Risk Management Practices
				5.B. Potential Climate Chang
Lightening strikes		X Awareness and response.	EAP Coordination with CAL FIRE for widtre ignition	Effects
				3.B. Widfre Frevention
Vehicles operating in dry vegetation areas		X Awareness and periodic personnel training.	Monthly plant safety meetings	Organizational Responsibilitie
Activity obsiding at the Addition of a cos		A Material and he age beganner rearing.	thorning providence in the right	5.A.(3) Vegetation
Vegetation clearing operations		X Awareness and periodic personnel training.	TVMP and PLFPFG	Management Program
				5.G. Fre Prevention, Safety,
Hot Work		X Awareness and periodic personnel training.	GS-111 (Hot Work Procedure) and GS-116 (Weiding Safety Procedu	ur Emergency Response Training
				2.C. Identifying Unnecessory
				Ineffective Actions: 4.C.
				Changes to CPUC Fre Threat
			Annual review of Widfre Management Plan including Fre Hazard	
Hand Annaka d Franklik alternation		Defende ver ihre of fra filt ande ender		Audifing the Plan.
Undetected fire risk change	х	Periodic review of fire risk categories.	Zone classifications	Auguing the right
		Annual review of protective equipment calibration and testing		
		records. Periodic (every 6 years) verification of protective device		5.A.(1) Facility Maintenance
Protective device delayed clearing		X operating time IAW NERC PRC-005	NCPA GS-304 Protection System Mointenance and Testing Program	n Program
			A MARKET A CARL OF ANY	erent meneral line



21 & 22

Commission Staff Report

COMMISSION MEETING DATE: May 26, 2022

SUBJECT: CLOSED SESSION ITEMS 21-22

AGENDA CATEGORY: Closed Session

FROM:	Jane Luckhardt	METHOD OF SELECTION:		
	General Counsel	N/A		
Division:	Executive Services			
Department:	Legal			

21. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

Pursuant to Government Code Section 54956.9(d)(1) - Existing Litigation, two (2) cases:

- A. Case Name: *Northern California Power Agency, City of Redding, City of Roseville, and City of Santa Clara v. the United States,* Court of Federal Claims No. 14-817C.
- B. Case Name: In Re PG&E Corporation and Pacific Gas and Electric Company: United States District Court, Northern District of California, Case No. 22-cv-02833-HSG.

22. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

Pursuant to Government Code Section 54956.9(d)(2) – Anticipated Litigation – one (1) case.