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Agenda

Date: Wednesday, May 5, 2021
Subject: Facilities Committee Meeting
Location: NCPA Headquarters, 651 Commerce Drive, Roseville, CA
Time: 9:00 am

This meeting is being held in accordance with the Brown Act as currently in effect under the State Emergency Act, Governor Gavin Newsom's Emergency Declaration related to COVID-19, and Governor Newsom's Executive Order N-29-20 issued March 17, 2020 that allows attendance by NCPA Facilities Committee Members, staff, and the public to participate and conduct the meeting by teleconference.

You may participate in the meeting via teleconference by:

Zoom Link: <https://zoom.us/j/94785893760>
Meeting ID: 947 8589 3760
Dial: 1-699-900-6833

The Facilities (Committee) may take action on any of the items listed on this Agenda regardless of whether the matter is described as an Action Item, or an Informational Item. This agenda is often supplemented by various documents which are available to the public upon request. Pursuant to Government Code Section 54957.5, the following is the location at which the public can view agendas and other public writings: NCPA Offices, 651 Commerce Drive, Roseville, California, or www.ncpa.com.

Persons requiring accommodation in accordance with the Americans with Disabilities Act in order to attend or participate in this meeting are requested to contact the NCPA Secretary at 916.781.3636 in advance of the meeting to arrange for such accommodations.

REVIEW SAFETY PROCEDURES

1. Call Meeting to Order and Roll Call

PUBLIC FORUM

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

OPEN SESSION

DISCUSSION / ACTION ITEMS

2. **Approval of Minutes** – Approve minutes from the April 7, 2021 Facilities Committee meeting.
3. **All NCPA Facilities, Members, SCPPA – BBA USA, Inc. MTPSA** – Staff is seeking a recommendation for Commission approval of a five-year Multi-Task Professional Services Agreement with BBA USA, Inc. for NERC and WECC testing and consulting services, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. *(Commission Category: Consent; Sponsor: Hydro)*
4. **All NCPA Facilities, Members, SCPPA – Mesa Associates, Inc. MTPSA** – Staff is seeking a recommendation for Commission approval of a five-year Multi-Task Professional Services Agreement with Mesa Associates, Inc. for engineering consulting services, with a not to exceed 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. *(Commission Category: Consent; Sponsor: Geo)*
5. **All NCPA Facilities, Members, SCPPA – JEGO Systems First Amendment to MTCSA** – Staff is seeking a recommendation for Commission approval of a First Amendment to the five-year Multi-Task Consulting Services Agreement with JEGO Systems for SCADA control systems and network integrator services, increasing the not to exceed from \$225,000 to \$1,000,000, for continued 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. *(Commission Category: Consent; Sponsor: Geo)*
6. **NCPA Geothermal Facility – Steam Field Operations Forecast Report** – Staff is seeking a recommendation for Commission approval of the 2021 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, 2021, and remaining in effect until replaced by the Commission. *(Commission Category: Consent; Sponsor: Geo)*
7. **NCPA 2021 Wildfire Mitigation Plan** – Staff is seeking a recommendation for approval of the NCPA 2021 Wildfire Mitigation Plan, with updated revisions based on the qualified independent evaluators recommendations. *(Commission Category: Consent; Sponsor: Generation Services Administration)*
8. **All NCPA Facilities and NCPA Members – Bell Burnett & Edwards First Amendment to MTCSA** – Staff is seeking a recommendation for Commission approval of a First Amendment to the Multi-Task Consulting Services Agreement with Bell Burnett & Edwards for financial analysis, planning advisory, generation and transmission project planning, energy efficiency and demand reduction program design, changing the vendor name to Bell Burnett & Associates, with no change to the not to exceed amount or contract term, for continued use at all facilities owned and/or operated by NCPA and NCPA Members. All purchase orders will be issued following NCPA procurement policies and procedures. *(Commission Category: Consent; Sponsor: Administrative Services)*

9. **Authorize the NCPA General Manager to Execute Confirmation Number 0209 for Quantum Spatial, Inc. Services to the City of Redding/Redding Electric Utility and Issue a Corresponding Purchase Order under the NCPA Support Services Program** – Subject to approval by the Redding City Council, staff is seeking authorization for the General Manager or his designee to execute Confirmation Number 0209 for Quantum Spatial, Inc. services to the City of Redding/Redding Electric Utility and issue a corresponding purchase order under the NCPA Support Services Program Agreement. The confirmation exceeds the General Manager's signing authority which requires Commission approval. If recommended for approval, this item will be placed on the May 27, 2021 Commission agenda. (*Commission Category: Consent; Sponsor: Administrative Services*)
10. **NCPA Geothermal Facility – NCPA Geothermal Plant 1 Fire System Modernization Project Request for Additional Funds** – Staff is seeking a recommendation for Commission approval of Amendment to Resolution 20-62 for the NCPA Geothermal Plant 1 Fire System Modernization Project, increasing the total not to exceed amount of this project from \$1,800,000 to \$3,800,000, and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project, and authorization for the use of up to \$2,000,000 from the Maintenance Reserve. (*Commission Category: Discussion/Action; Sponsor: Geo*)

INFORMATIONAL ITEMS

11. **New Business Opportunities** – Staff will provide an update regarding new business opportunities. (*Sponsor: Power Management*)
12. **NCPA Generation Services Plant Updates** – Plant Staff will provide the Committee with an informational update on current plant activities and conditions. (*Sponsor: Generation Services*)
13. **Planning and Operations Update** – Staff will provide an update on issues related to planning and operations. (*Sponsor: Power Management*)
14. **Next Meeting** – The next Facilities Committee meeting is scheduled for June 2, 2021.

CLOSED SESSION

15. **CONFERENCE WITH LEGAL COUNSEL** – Existing litigation pursuant to Government Code Section 54956.9(d)(1): Name of case: *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.

OPEN SESSION

REPORT FROM CLOSED SESSION

ADJOURNMENT

BW/cp



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Minutes – Draft

Date: April 14, 2021
To: NCPA Facilities Committee
From: Carrie Pollo
Subject: April 7, 2021 Facilities Committee Meeting Minutes

- 1. Call meeting to order & Roll Call** – The meeting was called to order by Committee Chair Basil Wong (Santa Clara) at 9:04 am. A sign-in sheet was passed around. Attending via teleconference and/or on-line presentation were Alan Harbottle and Vidhi Chawla (Alameda), Mark Sorensen (Biggs), Mike Farr (Gridley), Jiayo Chiang (Lodi), Shiva Swaminathan (Palo Alto), Mike Brozo (Plumas-Sierra), Khaly Nguyen (Port of Oakland), Nick Rossow (Redding), Brian Schinstock (Roseville), and Eric Shum and Monica Nguyen (Santa Clara). Owen Goldstrom (non-voting Member with TID) also attended via teleconference. Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Healdsburg, Lompoc, TID, and Ukiah were absent. A quorum of the Committee was established.

PUBLIC FORUM

No public comment.

OPEN SESSION

DISCUSSION / ACTION ITEMS

- 2. Approval of Minutes from the March 3, 2021 Facilities Committee Meeting.**

Motion: A motion was made by Mark Sorensen and seconded by Jiayo Chiang recommending approval of the March 3, 2021 Facilities Committee meeting minutes. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Port of Oakland, Roseville, and Santa Clara. The motion passed.

- 3. All NCPA Facilities, Members, SCPPA – ActiveReservoir, LLC MTCSA** – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Consulting Services Agreement with ActiveReservoir, LLC for well-related consulting services, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

This is a new agreement with a new vendor. It is an enabling agreement with no commitment of funds. ActiveReservoir, LLC was recommended to NCPA by Fairchild & Wells, which is no longer in

business. 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 currently has agreements in place for similar services with CH2M Hill Engineers, Irani Engineering, and AECOM Technical Services. A draft Commission Staff Report and the draft agreement were available for review. It is recommended that this item be placed on the Commission Consent calendar.

Motion: A motion was made by Brian Schinstock and seconded by Shiva Swaminathan recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Consulting Services Agreement with ActiveReservoir, LLC for well related consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. 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.

- 4. All NCPA Facilities (Except LEC), Members – Allied Power Group LLC Maintenance Management Program Agreement** – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Maintenance Management Program Agreement with Allied Power Group, LLC for gas turbine preventative maintenance services, with a not to exceed amount of \$6,300,000, for use at all facilities owned and/or operated by NCPA (except LEC) and NCPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

The NCPA Combustion Turbine Project 1 (CT1) does not currently have a service agreement for maintenance services on the gas turbines. In addition, the CT1 does not maintain a set of critical spare parts. This worked well during the early years of the CT1 Project because it experienced limited operation, and extended outages did not have a large impact. With integration of renewables in to the electric grid, the units are called on to run more frequently and the maintenance needs have changed. Unplanned outages and extended outages now may have a significant impact. This service agreement helps mitigate the impacts on CT1 by ensuring timely availability of critical spare parts, along with providing a warranty for units that will last the duration of each maintenance interval. The warranty will be phased in on each unit after the scheduled service occurs. In addition, in the past when CT1 experienced a forced outage, the process was to develop a scope of work, go out to bid, award contracts and seek approval. This process all needed to occur during a forced outage event, causing extended outage durations. This contract ensures a 24 hour response from APG. Once APG has assessed the problem, they will begin mobilizing necessary resources. At each maintenance interval, APG will upgrade the units with the new technology parts that include improved cooling and coatings for extended maintenance intervals and reliability, thus maintaining an adequate level of reliability. The agreement provides protections for NCPA to mitigate the length of the contract while gaining the benefits noted above. This has been accomplished by limiting annual cost increases, guarantee of a Parts Supply, and providing a termination clause with six months prior written notice. A draft Commission Staff Report and the draft agreement were available for review. It is recommended that this item be placed on the Commission Consent calendar.

Motion: A motion was made by Jiayo Chiang and seconded by Basil Wong recommending Commission approval authorizing the General Manager or his designee to enter into a Maintenance Management Program Agreement with Allied Power Group, LLC (APG) for gas turbine preventative maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$6,300,000 over five years, for use at any facilities owned and/or operated by NCPA (except the Lodi Energy Center), and NCPA 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. The motion passed.

- ***Prior to this item at 9:25 am, Jane Luckhardt, NCPA General Counsel, stepped out of the conference room due to a conflict of interest.***

- 5. All NCPA Facilities, Members, SCPPA – Black & Veatch Corporation First Amendment to MTPSA –** Staff presented background information and was seeking a recommendation for Commission approval of a First Amendment to the five-year Multi-Professional Services Agreement with Black & Veatch Corporation for consulting services related to project support and plant operations, with any non-substantial changes recommended and approved by the NCPA General Counsel, extending the agreement expiration date from May 26, 2021 to November 26, 2021, for continued 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 entered into a five year Multi-Task Professional Services Agreement with Black & Veatch Corporation effective May 26, 2016. It is an enabling agreement with no commitment of funds. This agreement is set to expire on May 26, 2021. Staff has been working on a renewal agreement with Black & Veatch, however this process is taking longer than anticipated. NCPA is currently utilizing Black & Veatch for hydrogen expertise support, and consulting regarding the Lodi Lakehouse development project, neither of which is completed. This First Amendment will extend the agreement expiration date from May 26, 2021 to November 26, 2021, to avoid any lapse in coverage while NCPA continues to work on the new agreement with Black & Veatch. NCPA has agreements in place for similar services with HDR Engineering, Inc. and Worley Group, Inc. The Law Offices of Susie Berlin, will act as NCPA General Counsel through the approval process for this agreement. A draft Commission Staff Report and the draft agreement were available for review. It is recommended that this item be placed on the Commission Consent calendar.

Motion: A motion was made by Brian Schinstock and seconded by Mike Farr recommending Commission approval authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task Professional Services Agreement with Black & Veatch Corporation for consulting services related to project support and plant operations, with any non-substantial changes recommended and approved by the NCPA General Counsel or his or her designee, extending the agreement expiration date from May 26, 2021 to November 26, 2021, for continued 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, Redding, Roseville, and Santa Clara. The motion passed.

- ***After this item was completed at 9:35 am, Jane Luckhardt, NCPA General Counsel, stepped back into the conference room.***

- 6. All NCPA Facilities, Members, SCPPA – K&A Engineering Consulting, P.C. MTPSA –** Staff reviewed background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Professional Services Agreement with K&A Engineering Consulting, P.C. for engineering consulting services related to all aspects of electric power generation, 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.

This is a new agreement with a new vendor. It is an enabling agreement with no commitment of funds. 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 GHD, Inc., Coffman Engineers, Inc., and Costa Engineers, Inc. A draft Commission Staff Report and the draft agreement were available for review. It is recommended that this item be placed on the Commission Consent calendar.

Motion: A motion was made by Shiva Swaminathan and seconded by Mark Sorensen recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Professional Agreement with K&A Engineering Consulting, P.C. for engineering consulting services related to electric power generation and delivery, 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, Redding, Roseville, and Santa Clara. The motion passed.

- 7. All NCPA Facilities, Members, SCPPA – EvapTech, Inc. MTGSA-EMS** – Staff reviewed background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement and Agreement for Purchase of Equipment, Materials and Supplies with EvapTech, Inc. for cooling tower services, with a not to exceed amount of \$3,000,000, 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.

This is a new agreement with a new vendor. It is an enabling agreement with no commitment of funds. 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 Alliance Cooling Products & Construction, Inc., American Cooling Tower, Inc., and Energy Options, Inc. A draft Commission Staff Report and the draft agreement were available for review. It is recommended that this item be placed on the Commission Consent calendar.

Motion: A motion was made by Shiva Swaminathan and seconded by Mike Brozo recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement and Agreement for Purchase of Equipment, Materials and Supplies with EvapTech, Inc., for cooling tower services and materials, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$3,000,000 over five years, for use at any facilities owned and/or operated by NCPA, 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, Redding, Roseville, and Santa Clara. The motion passed.

- 8. All NCPA Facilities – Delta Tech Service, Inc. MTGSA** – Staff reviewed background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement for inspection and cleaning, and decontamination maintenance services, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA. All purchase orders will be issued following NCPA procurement policies and procedures.

This is a new agreement with a new vendor. It is an enabling agreement with no commitment of funds. 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 Ancon Marine dba Ancon and Groome Industrial Service Group. This agreement is for use at NCPA facilities only. A draft Commission Staff Report and the draft agreement were available for review. It is recommended that this item be placed on the Commission Consent calendar.

Motion: A motion was made by Shiva Swaminathan and seconded by Jiayo Chiang recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Delta Tech Service, Inc., for inspection, chemical cleaning, and decontamination 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. 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.

9. All NCPA Facilities – Southern Counties Lubricants, LLC First Amendment tot MTGSA-EMS –

Staff presented background information and was seeking a recommendation for Commission approval of a First Amendment to the current five-year Multi-Task General Services Agreement and Agreement for Purchase of Equipment, Materials and Supplies with Southern Counties Lubricants, LLC, for oil analysis, oil filtration services, and purchase of miscellaneous lubricants, increasing the not to exceed amount from \$225,000 to \$1,500,000 and removing Members and SCPPA from this agreement, for use at all facilities owned and/or operated by NCPA. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA entered into a five year Multi-Task General Services and Agreement for Purchase of Equipment, Materials and Supplies with Southern Counties Lubricants, LLC effective November 14, 2019 for an amount not to exceed \$225,000. It is an enabling agreement with no commitment of funds. Initially this contract was implemented at a lower dollar threshold to evaluate the vendor's service and capability. They have met expectations and would increase the pool of vendors to increase competitive bids in the future. This agreement has been primarily used by NCPA's Geothermal Facility for purchases of turbine oil, lube oil, and filtration services, and this agreement is now running low on funds. This First Amendment will increase the not to exceed amount from \$225,000 to \$1,500,000 to ensure sufficient funds are available for the remainder of the contract term. This agreement was originally available for use by NCPA Members, SCPPA, and SCPPA Members, however, due to the hazardous nature of some of the materials provided by this vendor, this First Amendment will also modify the agreement so that it is no longer available for use by NCPA Members, SCPPA, or SCPPA Members. NCPA has agreements in place for similar services with Westgate Petroleum Company, Inc., and Nick Barbieri Trucking, LLC dba Redwood Coast Fuels. A draft Commission Staff Report and the draft agreement were available for review. It is recommended that this item be placed on the Commission Consent calendar.

Motion: A motion was made by Shiva Swaminathan and seconded by Brian Schinstock recommending Commission approval authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services and Agreement for Purchase of Equipment, Materials and Supplies with Southern Counties Lubricants, LLC for oil analysis and related supplies, on-site and off-site oil filtration services, and the purchase of miscellaneous lubricants, with any non-substantial changes recommended and approved by the NCPA General Counsel, increasing the not to exceed amount from \$225,000 to \$1,500,000, and removing NCPA Members, SCPPA, and SCPPA Members, for continued use at any facilities owned and/or operated by NCPA. 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.

10. All NCPA Facilities, Members, SCPPA - Quantum Spatial, Inc. dba NV5 Geospatial MTGSA –

Staff reviewed background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Quantum Spatial, Inc., dba NV5 Geospatial for transmission and distribution line modeling, and related services, with a not to exceed amount of \$2,000,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, SCPPA and SCPPA Members. All purchase orders will be issued following NCPA procurement policies and procedures.

NCPA currently has an agreement in place with Quantum Spatial, Inc., dba NV5 Geospatial, which is expiring in August 2021. NCPA and NCPA Members have utilized this vendor in the past, and have a good working relationship with the vendor. NCPA desires to renew this agreement so established terms and conditions are kept in place should this vendor be the successful bidder on future projects. This is an enabling agreement with no commitment of funds.

NCPA's Collierville to Bellota Substation 230KV Transmission Lines run largely in parallel with PG&E 115KV lines. Quantum Spatial is also a vendor for PG&E, and in the past, NCPA Hydro has been able to leverage cost savings on mobilization fees by conducting LiDAR surveys when Quantum Spatial is already mobilized for PG&E. NCPA has one agreement in place for similar services with Aerodyne Measure, Inc. Historically, when these services are competitively bid, NCPA has reached out to vendors such as GHD Engineering and GEI Consultants who also provide surveying services, however, they have to sub-contract the work, often to Quantum Spatial, and mark-up their services. A draft Commission Staff Report and the draft agreement were available for review. It is recommended that this item be placed on the Commission Consent calendar.

Motion: A motion was made by Shiva Swaminathan and seconded by Mark Sorensen recommending Commission authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Quantum Spatial, Inc., dba NV5 Geospatial for transmission and distribution line modeling, inspection and mapping services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

- 11. All NCPA Facilities, Members, SCPPA – Syblon Reid MTGSA** – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Syblon Reid for routine, recurring, and usual general construction maintenance services, with a not to exceed amount of \$5,000,000, 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 Syblon Reid, which is expiring in June 2021. It is an enabling agreement with no commitment of funds. NCPA has utilized Syblon Reid in the past for dam maintenance related work, as well as a separately contracted Public Works project for Sediment Removal at Beaver Creek. This vendor has shown themselves to be competent and a competitive bidder, and NCPA desires to renew this agreement so established terms and conditions are kept in place should this vendor be the successful bidder on future projects. NCPA has agreements in place for similar services with Ford Construction, Ronwright Construction, George Reid, KW Emerson, Rege Construction, and Granite Construction. A draft Commission Staff Report and the draft agreement were available for review. It is recommended that this item be placed on the Commission Consent calendar.

Motion: A motion was made by Shiva Swaminathan and seconded by Basil Wong recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Syblon Reid for routine, recurring, and usual general construction maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$5,000,000 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, Redding, Roseville, and Santa Clara. The motion passed.

- 12. Approval of Exhibit C, Revision 23-1 to Contract 96-SNR-00110 – WAPA O&M Funding Commitment** – Staff presented background information and was seeking a recommendation for Commission approval of Exhibit C, Revision 23-1 to Contract 96-SNR-00110, and to authorize the General Manager of NCPA to execute Exhibit C, Revision 23-1 to Contract 96-SNR-00110, on behalf of NCPA.

In December 2004, NCPA executed the Agreement for the Funding of Operation and Maintenance of CVP Projects, Contract 96-SNR-00110. The objective of this agreement provides CVP customers funds for specific operations, maintenance, and capital projects related to CVP facilities, and ensures CVP facilities are maintained to enhance reliability of base resource deliveries. All funds paid are returned as credits on power bills.

For each fiscal year, each customer commits to certain funding levels based on projected needs. During the federal fiscal year 2023 the original NCPA Pool Share funding was \$10,931,542.95. The original amount has now been revised for the NCPA Pool Share at \$11,641,074.05. There is no net fiscal impact because amounts initially funded are subsequently refunded by Western using bill credits. NCPA's authority to act on behalf of Pool Members is provided through the Assignment Administration Agreement (AAA Agreement), which requires an affirmative vote of all assigning Members.

Motion: A motion was made by Mark Sorensen and seconded by Jiayo Chiang recommending Commission approval of Exhibit C, Revision 23-1 to Contract 96-SNR-00110, and to authorize the General Manager of NCPA to execute Exhibit C, Revision 23-1 to Contract 96-SNR-00110, on behalf of NCPA, including any non-substantive modifications to Exhibit C, Revision 23-1 to Contract 96-SNR-00110 approved by NCPA's General Counsel. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Plumas-Sierra, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

➤ ***Item #12 requires a unanimous vote of the Pool Members only.***

- 13. Replacement Capacity for Collierville Dual Unit Outage** – Staff provided background information and was seeking a recommendation for Commission approval of an Amendment to Facilities Schedule 7, Section 4.7 for Outage Coordination, to authorize NCPA to purchase replacement Resource Adequacy capacity for the Collierville dual unit outage scheduled in CY 2021.

In October 2021 the outage plan for maintenance due at Collierville includes a dual unit outage from October 1-3, 2021. After the dual unit outage, Unit 1 will be in an outage from October 4-15, 2021, then Unit 2 from October 18-29, 2021. The net qualifying capacity rating for both units is 246.86 MW. The full available RA capacity expected to be claimed for the month of October 2021 is reflective of a single unit outage which is approximately 124 MW. To ensure NCPA is able to perform maintenance during the CY 2021 Collierville dual unit outage, staff is seeking authority to procure substitute RA. The approximate amount of RA substitute to be purchased will be 124 MW, or equivalent to a single unit volume. The allocated cost of the substitute RA to Participants will be based on the claimed or sold RA volumes.

Procurement authority falls under the Facilities Agreement Section 4.3(c)(5) for Project Maintenance, and under Facilities Schedule 7 for the North Fork Stanislaus River Hydroelectric Development Project Operating Procedures. Proposed language for an Amendment to Facilities Schedule 7, was reviewed and discussed with the Committee, delegating authority to NCPA to be able to purchase substitute RA which enables outage coordination to be scheduled and performed. This Amendment will also allow Members the opportunity to provide alternate RA supply as a self-provision. If voluntary substitute RA is not supplied by a Project Participant, NCPA would be authorized to purchase substitute RA on their behalf.

Motion: A motion was made by Shiva Swaminathan and seconded by Brian Schinstock recommending Commission approval of an Amendment to Facilities Agreement Schedule 7, as presented to the Facilities Committee on April 7, 2021, including additional clarification language as discussed, to enable NCPA to procure RA Substitute Capacity consistent with the procedures described in the proposed amendment, including any non-substantive modifications approved by

NCPA's General Counsel. 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.

- 14. NCPA Hydroelectric Facility – Upper Utica Dams Maintenance Project** – Staff presented background information and was seeking a recommendation for Commission approval of the Upper Utica Dams Maintenance Project and delegation of authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the Project, with a not to exceed amount of \$1,000,000 from existing budget funds. All purchase orders will be issued following NCPA procurement policies and procedures.

The Upper Utica Project (FERC Project No. 11563), owned and operated by NCPA, is located approximately 50 miles east of Murphys, CA. The Project No. 11563 reservoirs include Alpine, Union, and Utica which were originally constructed in the 1800's (Union and Alpine) and early 1900's (Utica). The dams allow for the storage of water for later diversion and use at the Collierville Powerhouse. Each of the dams require maintenance work in the summer and fall of 2021. The Federal Energy Regulatory Commission (FERC) and California Department of Water Resources, Division of Safety of Dams, require that these dams be maintained. NCPA has completed the design work to accomplish the maintenance objectives while still preserving the historical character of the dams as required by the FERC approved Historic Properties Management Plan.

The project timeline is June – November 2021. The work is estimated to cost less than \$1,000,000 which is included in the current and upcoming fiscal year budgets. The maintenance activities are exempt from CEQA under CEQA Section 15301 Class 1: Existing Facilities under the jurisdiction of the Department of Water Resources. Staff reviewed the work with the USFS during the annual consultation meeting. Work will be in compliance with the FERC approved Upper Utica Historic Properties Management Plan.

Motion: A motion was made by Shiva Swaminathan and seconded by Basil Wong recommending Commission approval authorizing the Upper Utica Dams Maintenance Project and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project in accordance with NCPA purchasing policies and procedures, without further approval by the Commission, for a total not to exceed amount of \$1,000,000 from existing funds in the FY2021 and FY2022 Hydroelectric Project Budgets. YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

- ***Please note that Item #14 was approved by the Committee after Item #15 was approved, since a portion of the Upper Utica Dams Maintenance Project falls under FY2022 Budget funding.***

- 15. FY2022 Annual Budget Review and Approval** – Staff presented, and reviewed the final budget for FY2022, and was seeking a recommendation for Commission approval of the budget.

The overall FY2022 is increasing by 3.7%, or \$15,818,953, due largely to plant projects, reserves, insurance costs, generation output, and market conditions. Management services are increasing at 1.6% due to Power Management, with half a year additional funding for FY2021 new positions in PM and IS. Participant Pass-Through Costs are up 8.0% due to an increase in TANC PTO unbudgeted FY2021 costs, and BART meter costs. Generation resources is up \$7.8 million due to projects, reserves, insurance, and revenue due to MWhs and forward price curves. Contracts decreased due to open positions, decreased Western costs, and impacts related to the forward curve. CAISO rates have also increased. The FY2022 Proposed Budget has been published to NCPA Connect. This item is scheduled for Commission approve April 29, 2021.

Motion: A motion was made by Shiva Swaminathan and seconded by Mark Sorenson recommending Commission approval of the FY2022 Annual Budget and Working Capital, and Funding Requirement, as presented in the Facilities Committee Meeting April 7, 2021, and as detailed in the attached budgetary support and Annual Budget document, subject to the consideration and support of the Member Utility Directors with any non-substantive changes approved by NCPAs General Counsel. YES = Alameda, Biggs, Gridley, Lodi, Palo Alto, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

INFORMATIONAL ITEMS

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

- **South Sutter Water District (Camp Far West)** – A PPA is currently under development.
- **SFWPA (South Feather Hydroelectric)** – The final PPA is under development, as well as development of the Third Phase Agreement. Member subscriptions are currently being figured out. Refinement of the compensation mechanism is approximately \$35.00 per MWh.
- **Glover Solar** – The final PPA is under development, and awaiting a price refresh.
- **McCloud Solar 1 and McCloud Solar 2** – A Letter of Intent to initiate PPA negotiations has been signed by NCPA and Sunrise Energy Ventures. These two solar projects will produce 136 MW. SVP and Redding are currently interested in these projects.
- **NCPA Renewables RFP** – Review of additional proposals is underway. Please contact staff regarding interest in projects.

17. BV Hydrogen Feasibility Study – Staff provided a brief overview of the recently completed Hydrogen Feasibility Study, by Black & Veatch Corporation.

This study was done to look at options for the feasibility and practicality of hydrogen production, storage, and co-firing up to a 45% hydrogen blend at LEC with certain assumptions and risks. While feasibility may be determined, emerging technologies result in higher costs, and additional or increased risks. This study is not a decision to build a plant with detailed specifications. The objective of the study is to analyze the feasibility of an adequately sized hydrogen production and storage facility that can achieve cost parity with LEC's current operations.

Conclusions of the study include production of hydrogen via water electrolysis and storage as a compressed vapor or cryogenic liquid is technically feasible. Numerous vendors exist for each of the key processes considered in this study, and many offer commercial experience. Although numerous electrolyzed facilities exist worldwide, hydrogen energy storage facilities, considered in this study, are in their initial stages. Capital costs for hydrogen production and storage equipment remain high and contribute significantly to levelized costs. Electricity pricing contributes significantly to levelized costs, but projected pricing throughout the life of a potential project at LEC appears reasonable. Black & Veatch expects LCOE cost parity could be potential with hydrogen co-firing at LEC in instances where capital costs are minimized to the extent practicable, recovery and sales of oxygen are pursued, and REC revenue sharing with renewable energy providers is pursued. The completion of this study is one of the most sophisticated hydrogen energy storage feasibility studies of its kind. Staff will bring this item back at a future Facilities Committee meeting for more discussion, and possible recommendations to consider.

18. 2022 PG&E Rate Case Update – Staff provided an update regarding the 2022 PG&E Rate Case.

The PG&E Gas Rate Case 2022 starts this summer proceeding into next year. PG&E will need to be engaged before they get too far into their proposal. Staff would like to meet with PG&E to comment before development is started. Staff recommends consultant support to help, and would like to create a RFP in April for services starting in May or June of this year. The top three issues include: 1) LT cost allocation between core and noncore; 2) Gas throughput forecast; and 3) Fixed EG-LT Tariff verses Settlement Agreement. The CPUC Long-Term Gas Planning 20-01-007 has two tracks that are on-going right now. Track 1A is for reliability standards, and Track 1B is for market structure and regulations.

Staff is proposing to share the cost of services with Northern California Generation Coalition (NCGC). The scope of work for gas rate expertise to support NCGC and NCPA, and also to ensure protection of interests, should include: 1) Monitoring of rate case developments in Track 1A and 1B; 2) Perform an analysis; 3) Provide strategic advice; and 4) Support filing support. The preliminary budget for this shouldn't be over \$100,000 per year.

19. NCPA Generation Services Plant Updates – Plant Staff presented informational updates on current plant activities and conditions.

Geo – There were no safety recordables in March. However, there was a near miss when an employee slipped, and had a minor injury. The average net generation for March was 86.5 MW, with the estimated total net generation at 64.4 GWh. The FY 2021 actual net generation is at 579.5 GWh YTD, exceeding the forecasted total of 557.6 GWh, or 3.9% above forecasted. Plant 1, Units 1 and 2 were both off line March 1-8, 2021, so PG&E could install a jumper between the Fulton and Lakeville transmission lines. The Unit 4 Turbine Rotor – RCA Investigation started March 15, 2021 and is still continuing for the 4th stage blades that shifted during operation in March 2017, and March 2020. The Plant 1 Fire Orr Protections Systems, and HVAC Project are continuing. The FY2021 vehicle purchases have been completed, and new doors have been installed for the Geothermal facility upgrade.

Cts – March was a very quiet month for the CTs. Zero starts were forecasted for both CT1 and CT2. CT1 had one actual start bringing the YTD total to 211. The YTD total for CT2 remains at 98. There were no forced or planned outages for this month.

Hydro – The good news is that New Spicer Meadow (NSM) Reservoir started to fill on March 17, 2021, after months of declining. The bad news is that NSM Reservoir will not fill this year, not even close. The state's snow pack is at 59%, which is one of the driest years on record. Maps released from NOAA/CPC forecast broad-scale drought conditions between moderate to exceptional for the state of California this year depending on regions.

20. Planning and Operations Update –

- Resource Integration – Staff is currently working to integrate the following entities into the NCPA Portfolio including Central 40 Solar (SVP), Altamont Wind (EBCE), SFWPA (Members), Sky River Wind (BART), Slate 1 Solar (BART), and Ukiah Mendocino Hydro (Ukiah).
- Staff is working to reintegrate Dispatch and Scheduling shifts both back at the NDC, which would enable weekend coverage for SVP.
- Summer 2021 Readiness – This continues to be a top priority of CAISO stakeholder initiatives.

21. Next Meeting – The next Facilities Committee meeting is scheduled for May 5, 2021.

ADJOURNMENT

The meeting was adjourned at 1:06 pm by the Committee Chair.

Teleconference call only due to Covid19

Northern California Power Agency April 7, 2021 Facilities Committee Meeting Attendance List

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

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

**Northern California Power Agency
April 7, 2021 Special Facilities Committee Meeting
Attendance List**

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

[illegible]



Commission Staff Report – *DRAFT*

COMMISSION MEETING DATE: May 27, 2021

SUBJECT: BBA USA, Inc. – Five Year Multi-Task Professional Services Agreement for NERC and WECC testing and support; 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:	Joel Ledesma	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Hydroelectric	

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

Approve Resolution 21-XX authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with BBA USA, Inc. for NERC and WECC testing and support 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:

NERC and WECC testing and support 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. BBA USA, Inc. is a new vendor for NCPA. While BBA USA was not the winning bidder on a recent project, their bid was competitive and their bid proposal was comprehensive and detail oriented. 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. Additionally, adding this vendor will increase the pool of qualified vendors for these types of services. NCPA has agreements in place for similar services with Kestrel Power Engineers and General Electric (GE).

FISCAL IMPACT:

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

SELECTION PROCESS:

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

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

Pending Committee review.

AFTER FACILITIES APPROVAL: On May 5, 2021 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On May 10, 2021 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution 21-XX
- Multi-Task Professional Services Agreement with BBA USA, Inc.

RESOLUTION 21-XX

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

(reference Staff Report #XXX:21)

WHEREAS, NERC and WECC testing and support 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, BBA USA, Inc. is a provider of these services; and

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

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

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

PASSED, ADOPTED and APPROVED this ____ day of _____, 2021 by the following vote on roll call:

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

DAVID HAGELE
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



MULTI-TASK PROFESSIONAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND BBA USA 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") BBA USA INC., 2801 Centerville Road, First floor, PMB 367, Wilmington, DE 19808-1609 ("Consultant") (together sometimes referred to as the "Parties") as of _____, 2021 ("Effective Date") in Roseville, California.

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

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

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

Section 2. **COMPENSATION.** Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED** one million dollars (\$1,000,000) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

2.1 **Invoices.** Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- The beginning and ending dates of the billing period;
- Services performed;
- The Purchase Order number authorizing the Services;
- At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder; and
- At Agency's option, when the Consultant's Scope of Work identifies tasks, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction.

Invoices shall be sent to:

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

2.2 **Monthly Payment.** Agency shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.

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

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

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

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

- 4.1 Workers' Compensation.** If Consultant employs any person, Consultant shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Consultant with limits of not less than one million dollars (\$1,000,000.00) per accident.
- 4.2 Commercial General and Automobile Liability Insurance.**
- 4.2.1 Commercial General Insurance.** Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- 4.2.2** Consultant shall obtain automobile liability insurance for non-owned automobiles covering any loss or liability, including the cost of defense of any action, insofar as the Consultant be traveling to any Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.

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

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

4.4 All Policies Requirements.

4.4.1 Verification of coverage. Prior to beginning any work under this Agreement, Consultant shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

4.4.2 Notice of Reduction in or Cancellation of Coverage. Consultant shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.

4.4.3 Higher Limits. If Consultant maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Consultant.

4.4.4 Additional Certificates and Endorsements. If Consultant provides services to Agency members, SCPPA and/or SCPPA members, Consultant shall provide certificates of insurance and policy endorsements, as referenced in Section 4.4.1, naming the specific Agency member, SCPPA or Agency member for which the Services are to be performed.

4.4.5 Waiver of Subrogation. Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.

4.5 Consultant's Obligation. Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

5.1 Effect of Insurance. Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

5.2 Scope. Consultant shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners, officers, employees, 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 with respect to the performance of the Professional Services performed by the Consultant to the extent that they arise out of, pertain to, or relate to such claims, directly ("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the negligence, active negligence, or willful misconduct of the Agency.

Notwithstanding the foregoing in the event Consultant defends the Agency and it is ultimately determined or agreed to that the Consultant was either not negligent or was only partially negligent with respect to the loss, liability, claim, suit, action or damages, the Agency agrees that it shall promptly reimburse Consultant for such proportion of the Consultant's costs incurred in defending the Agency that is not attributable to the negligence of the Consultant.

- 5.3 Limitation.** In any event, Agency and Consultant agree that the aggregate liability of Consultant in respect to any Purchase Order is expressly limited to a total amount of \$2,000,000. This stated limitation of liability does not apply to personal injury including to Agency employees and property damage. For the purposes of Section 5, "Consultant" includes its representatives, consultants, subcontractors, directors, officers and employees.

Section 6. STATUS OF CONSULTANT.

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

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

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

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

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

Section 7. LEGAL REQUIREMENTS.

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

Section 8. TERMINATION AND MODIFICATION.

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

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

- 8.2 Amendments.** The Parties may amend this Agreement only by a writing signed by all the Parties.
- 8.3 Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Consultant shall survive the termination of this Agreement.
- 8.4 Options upon Breach by Consultant.** If either party materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, the non-defaulting party 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. Any and all deliverables are prepared specifically, and are intended to be used exclusively for the project and location contemplated under the Agreement. Any completion, extension, or modification of deliverables by Agency or others without participation of Consultant, or written authorization by

Consultant, or any reuse by Agency of Consultant's deliverables or work product other than for the specific purpose intended will be at Agency's sole risk and without liability or legal exposure to Consultant.

- 9.2 Consultant's Books and Records.** Consultant shall maintain any and all records or other documents evidencing or relating to charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.
- 9.3 Inspection and Audit of Records.** Any records or documents that this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Agreement.
- 9.4 Confidential Information and Disclosure.**
- 9.4.1 Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof.
- 9.4.2 Non-Disclosure of Confidential Information.** During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confident; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- 9.4.3 Permitted Disclosure.** Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation,

a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:

9.4.3.1 Disclosure to employees, agents, consultants, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.

9.4.3.2 Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and

9.4.3.3 Disclosure by Agency in response to a request pursuant to the California Public Records Act.

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

Section 10. MISCELLANEOUS PROVISIONS.

10.1 **Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

10.2 **Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.

10.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

10.4 No Implied Waiver of Breach. The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

10.5 Successors and Assigns. The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

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

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

10.7 Contract Administrator. This Agreement shall be administered by 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:

Attention of François Vitez
BBA USA INC.
2801 Centerville Road, First Floor, PMB 367
Wilmington, DE 19808-1609
francois.vitez@bba.ca

With a copy to:

Normand Girard
General Counsel
normand.girard@bba.ca

Any written notice to Agency shall be sent to:

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

With a copy to:

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

- 10.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- 10.10 Integration; Incorporation.** This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- 10.11 Alternative Dispute Resolution.** If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:
- 10.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
 - 10.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
 - 10.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
 - 10.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
 - 10.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
 - 10.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to

change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*

- 10.12 Controlling Provisions.** In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Consultant's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Consultant's Proposal, the Purchase Order shall control.
- 10.13 Counterparts.** This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- 10.14 Construction of Agreement.** Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- 10.15 No Third Party Beneficiaries.** This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Consultant provide services to an Agency member, 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

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

NORTHERN CALIFORNIA POWER AGENCY

BBA USA INC.

Date_____

Date_____

RANDY S. HOWARD, General Manager

NEIL MASSEY, Client Account Manager

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT A

SCOPE OF SERVICES

BBA USA INC. ("Consultant") shall provide the following services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by the Agency, its Members, SCPPA, or SCPPA Members, including:

- Engineering Consulting;
- WECC / NERC Testing;
- Engineering support for excitation systems and upgrades;
- Power system studies and designs;
- Operational Technology Automation and Cybersecurity; and
- Other engineering support as needed.

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:



TABLE 4
2021 LIST OF HOURLY RATES

UNITED STATES

RATES in \$ US	
Engineering and Professional Services:	
▪ Level 1A	82
▪ Level 1B	97
▪ Level 2	117
▪ Level 3	137
▪ Level 4	155
▪ Level 5	175
▪ Level 6	197
Technical Services:	
Technician/Technologist/Designer/Draftsperson:	
▪ Level 1A	63
▪ Level 1B	76
▪ Level 2	89
▪ Level 3	106
▪ Level 4	119
▪ Level 5	134
▪ Level 6	148
Expert:	
▪ Expert Level	237
Support Services:	
▪ Clerical	60
▪ Project Support	73
Office direct costs on fees: 7.50%	

Note: NCPA will not pay for overhead charges such as clerical or accounting. Those overhead related charges are expressly not allowed. 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.

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

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

EXHIBIT C
CERTIFICATION

Affidavit of Compliance for Contractors

I, _____

(Name of person signing affidavit)(Title)

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

(Company name)

for contract work at:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____ day of _____, 20 ____.

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



Commission Staff Report – *DRAFT*

COMMISSION MEETING DATE: May 27, 2021

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

AGENDA CATEGORY: Consent

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

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

Approve Resolution 21-XX authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with Mesa Associates, Inc. for engineering consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

BACKGROUND:

Engineering consulting services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. Mesa Associates, Inc., is a new vendor for NCPA. 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. Additionally, adding this vendor will increase the pool of qualified vendors for these types of services. NCPA has agreements in place for similar services with GHD, Inc., Coffman Engineers, Inc., Veizades & Associates, Inc., Nor-Cal Controls ES, Inc., and Costa Engineers, Inc.

FISCAL IMPACT:

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

SELECTION PROCESS:

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

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

Pending Committee review.

AFTER FACILITIES APPROVAL: On May 5, 2021 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On May 10, 2021 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution 21-XX
- Multi-Task Professional Services Agreement with Mesa Associates, Inc.

RESOLUTION 21-XX

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

(reference Staff Report #XXX:21)

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

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

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

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

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

PASSED, ADOPTED and APPROVED this ____ day of _____, 2021 by the following vote on roll call:

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

DAVID HAGELE
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



**MULTI-TASK PROFESSIONAL SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
MESA ASSOCIATES, 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 Mesa Associates, Inc, a corporation with its office located at 480 Production Avenue, Madison, Alabama 35758 ("Consultant") (together sometimes referred to as the "Parties") as of _____, 2021 ("Effective Date") in Roseville, California.

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

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

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

Section 2. **COMPENSATION.** Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED ONE MILLION** dollars (\$1,000,000) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

2.1 **Invoices.** Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- The beginning and ending dates of the billing period;
- Services performed;
- The Purchase Order number authorizing the Services;
- At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder; and
- At Agency's option, when the Consultant's Scope of Work identifies tasks, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction.

Invoices shall be sent to:

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

2.2 **Monthly Payment.** Agency shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.

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

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

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

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

- 4.1 Workers' Compensation.** If Consultant employs any person, Consultant shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Consultant with limits of not less than one million dollars (\$1,000,000.00) per accident.
- 4.2 Commercial General and Automobile Liability Insurance.**
- 4.2.1 Commercial General Insurance.** Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- 4.2.2 Automobile Liability.** Consultant shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Consultant, on or off Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and

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

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

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

4.4 All Policies Requirements.

4.4.1 Verification of coverage. Prior to beginning any work under this Agreement, Consultant shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

4.4.2 Notice of Reduction in or Cancellation of Coverage. Consultant shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.

4.4.3 Higher Limits. If Consultant maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Consultant.

4.4.4 Additional Certificates and Endorsements. If Consultant provides services to Agency members, SCPPA and/or SCPPA members, 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.

4.4.5 Waiver of Subrogation. Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.

4.5 Consultant's Obligation. Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

5.1 Effect of Insurance. Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

5.2 Scope. Consultant shall indemnify and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against any and all claims to the extent that the claims arise out of, pertain to or relate to the negligence, recklessness or willful misconduct of the Consultant in its performance of Services under this Agreement. Consultant shall bear all losses, costs, damages, expense and liability of every kind, nature and description to the extent that they arise out of, pertain to, or relate to such claims, whether directly or indirectly ("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the negligence, active negligence, or willful misconduct of the Agency.

Section 6. STATUS OF CONSULTANT.

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

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

- 6.2 Consultant Not Agent.** Except as Agency may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- 6.3 Assignment and Subcontracting.** This Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the Agency. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the

subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Consultant shall supervise all work subcontracted by Consultant in performing the services and shall be responsible for all work performed by a subcontractor as if Consultant itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Consultant from any of its obligations under this Agreement with respect to the services and Consultant is obligated to ensure that any and all subcontractors performing any services shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.

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

Section 7. LEGAL REQUIREMENTS.

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

Section 8. TERMINATION AND MODIFICATION.

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

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

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

8.4 **Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:

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

Section 9. KEEPING AND STATUS OF RECORDS.

9.1 **Records Created as Part of Consultant's Performance.** All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder, subject to receipt by Consultant of full payment for all services relating to preparation of the aforementioned documents or materials, 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 and shall return or destroy all Deliverables and Agency data such as reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials specifications or material of any type and in any form provided to Consultant by Agency upon termination of this Agreement or completion of any Purchase Order.

Any and all deliverables are prepared specifically, and are intended to be used exclusively for the project and location contemplated under the Agreement. Any completion, extension, or modification of deliverables by Agency or others without participation of Consultant, or written authorization by Consultant, or any reuse by Agency of Consultant's deliverables or work product other than for the specific purpose intended will be at Agency's sole risk and without liability or legal exposure to Consultant. Consultant shall retain ownership of Consultant's prior developed intellectual property (including standard drawings and specifications, computer programs and models, copyrights, trade secrets,

patented, patent pending, or other patentable technology, processes, or business practices) as long as all of these materials were developed prior to the Services and developed without compensation from Agency.

- 9.2 Consultant's Books and Records.** Consultant shall maintain any and all records or other documents evidencing or relating to charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.
- 9.3 Inspection and Audit of Records.** Any records or documents that this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Agreement.
- 9.4 Confidential Information and Disclosure.**
- 9.4.1 Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as confidential Information in accordance with this section.
- 9.4.2 Non-Disclosure of Confidential Information.** During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps necessary 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. Receiving Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

Section 10. MISCELLANEOUS PROVISIONS.

10.1 **Attorneys' Fees.** Reserved.

10.2 **Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.

10.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

10.4 No Implied Waiver of Breach. The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

10.5 Successors and Assigns. The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

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

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

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

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

Kyle Gage
Project Manager
Mesa Associates, Inc.
3500 Douglas Blvd., suite 240
Roseville, CA 95661

Any written notice to Agency shall be sent to:

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

With a copy to:

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

- 10.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- 10.10 Integration; Incorporation.** This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- 10.11 Alternative Dispute Resolution.** If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:
- 10.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
 - 10.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
 - 10.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
 - 10.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
 - 10.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
 - 10.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*
- 10.12 Controlling Provisions.** In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Consultant's Proposal, the Exhibits

shall control. In the case of any conflict between the terms of a Purchase Order and the Consultant's Proposal, the Purchase Order shall control.

10.13 Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

10.14 Construction of Agreement. Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.

10.15 No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Consultant provide services to an Agency member, 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.

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

NORTHERN CALIFORNIA POWER AGENCY

MESA ASSOCIATES, INC.

Date_____

Date_____

RANDY S. HOWARD, General Manager

TIM RAMSEY, Vice President, Power Generation

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT A

SCOPE OF SERVICES

Mesa Associates, Inc., ("Consultant") shall provide engineering consulting services as requested by the Northern California Power Agency ("Agency"), at any facilities owned or operated by Agency, its Members, Southern California Public Power Authority (SCPPA) or SCPPA Members:

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

- Project Development
- Technical Consulting Services
- Engineering And Design
- Control System Automation / Integration
- Project Management
- Start-Up commissioning
- Training
- Panel Fabrication (in pre-existing off site facility of Consultant)

No services that meet the definition of "construction" or "public works" as contained in California Labor Code Section 1720 including work performed during the design, site assessment, feasibility study, and other preconstruction phases of construction shall be performed under this contract.

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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



2021 Basis of Charges Fixed Rates by Labor Category

Classification	Minimum Qualification	Rate
Program Manager	Fifteen years minimum experience in design and engineering. Ten years minimum experience in project management.	\$180
Senior Project Manager	Fifteen years minimum experience in design and engineering. Five years minimum experience in project management.	\$172
Project Manager	Eight years minimum experience in design and engineering. Five years minimum experience in project management.	\$146
Associate Project Manager	Three years minimum experience in a specialized segment of project management.	\$111
Technical Specialist	Twenty years of experience in specialized field. Recognized Subject Matter Expert in the field.	\$232
Project Engineer	Eight years minimum experience in design and engineering. Leads multi-discipline team. PE and BS required.	\$165
Principal Engineer	Eight years minimum experience in design and engineering. PE and BS required. Provides technical direction to a department or a group of engineers.	\$160
Lead Engineer	Eight years minimum experience in design and engineering. Leads discipline specific design team. PE and BS required.	\$143
Senior Engineer	Eight years minimum experience in design and engineering. PE and BS required.	\$138
Engineer	Four years minimum experience in a specialized segment of design and engineering. PE and BS required.	\$122
Senior Engineering Specialist	Eight years minimum experience in design and engineering or systems integration/programming. BS required. No PE required.	\$133
Engineering Specialist	Four years minimum experience in a specialized segment of design and engineering or systems integration/programming. BS required. No PE required.	\$112
Engineering Associate	Up to four years minimum experience in a specialized segment of design and engineering or systems integration/programming. BS required.	\$91
Design Specialist	Fifteen years minimum experience in selecting and applying techniques and procedures and five years minimum experience responsible for design management.	\$143
Senior Designer*	Eight years minimum experience in selecting and applying techniques and procedures.	\$123
Designer*	Four years minimum experience in progressive responsible design.	\$94
Associate Designer*	Up to four years' experience in responsible design, and four years minimum work experience as senior level technician equivalent.	\$85
Senior Technician*	Eight years minimum experience preparing detail drawings.	\$79
Technician*	Up to five years' experience in preparing detail drawings/computer aided drafting.	\$61
Senior/DCS Programmer	Ten years minimum experience in control system programming.	\$160



2021 Basis of Charges

Fixed Rates by Labor Category

Classification	Minimum Qualification	Rate
Programmer (PLC)	Ten years minimum experience in PLC programming.	\$124
Senior Construction Manager	Twelve years minimum experience in construction of power generation or industrial projects.	\$180
Construction Manager	Eight years minimum experience in construction of power generation or industrial projects.	\$160
Senior Field Technician*	Ten years minimum experience as electrical field technician, including completion of IBEW or journeyman electrician.	\$111
Field Technician*	Four years minimum experience as electrical field technician, including completion of IBEW or journeyman electrician.	\$98
QA/Safety Manager	Ten years minimum experience in quality and/or safety management.	\$118
Scheduler*	Five years minimum experience in project scheduling.	\$111
Procurement Specialist*	Five years minimum experience in procurement.	\$75
Senior Project Controls Specialist	Fifteen years minimum experience in cost control/scheduling.	\$94
Project Controls Specialist*	Five years minimum experience in cost control/scheduling.	\$77
Document Control Technician*	Up to five years' experience in transmittal generation.	\$75
Senior Administrative Specialist	Ten years minimum experience in advanced project team support. BS/BA degree in related field in lieu of experience.	\$66
Administrative Specialist*	Five years minimum experience in office support to project team.	\$59
Administrative/Clerical Services Assistant*	Up to five years' experience in office support to project team.	\$53
Vehicles	Automobile mileage.	per IRS
Expenses/Travel	Billed at per diem in accordance with GSA CONUS, or actual expense, at customer direction. G&A fee is applied to all expenses, unless otherwise contractually noted.	
Non-Exempt*	Non-exempt employees are paid one and one-half times their hourly rate for all hours worked in excess of 40 hours per week. All overtime is billed to client at a regular, straight-time multiplier (no premium).	

Agency will not pay for standard overhead expenses including but not limited to accounting personnel or administrative assistant hourly charges.

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

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

EXHIBIT C
CERTIFICATION

Affidavit of Compliance for Contractors

I, _____

(Name of person signing affidavit)(Title)

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

(Company name)

for contract work at:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____ day of _____, 20 ____.

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



Commission Staff Report – *DRAFT*

COMMISSION MEETING DATE: May 27, 2021

SUBJECT: JEGO Systems – First Amendment to Five Year Multi-Task Consulting Services for SCADA, Control Systems and Network Integrator 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:	Joel Ledesma	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Geothermal	

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

Approve Resolution 21-XX authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task Consulting Services Agreement with JEGO Systems for SCADA, control systems and network integrator services, 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 any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

BACKGROUND:

SCADA, control systems and network integrator services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. NCPA entered into a five year Multi-Task Consulting Services Agreement with JEGO Systems effective March 24, 2021 for an amount not to exceed \$225,000. The Geothermal Facility will be going out to bid for the Enterprise Management System (EMS) Upgrade which comprise the Effluent and Field Management Systems in FY22, and JEGO Systems is a potential bidder for this work. To ensure sufficient funds are available should JEGO be the successful bidder for this or future work, this amendment will increase the not to exceed amount from \$225,000 to \$1,000,000, for continued use at any facility owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members. NCPA has agreements in place for similar services with Tesco Controls, Nor-Cal Controls ES, Inc., and Trimark Associates, Inc.

FISCAL IMPACT:

Upon execution, the total not to exceed amount of the agreement will increase from \$225,000 to \$1,000,000 over the remainder of the contract term. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

SELECTION PROCESS:

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

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

Pending Committee review.

AFTER FACILITIES APPROVAL: On May 5, 2021 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

AFTER LEC PPC APPROVAL: On May 10, 2021 the Lodi Energy Center Project Participant Committee reviewed and approved the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (3):

- Resolution 21-XX
- Multi-Task Consulting Services Agreement with JEGO Systems
- First Amendment to Multi-Task Consulting Services Agreement with JEGO Systems

RESOLUTION 21-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A FIRST AMENDMENT TO THE MULTI-TASK CONSULTING SERVICES AGREEMENT WITH JEGO SYSTEMS

(reference Staff Report #XXX:21)

WHEREAS, Northern California Power Agency (NCPA) and JEGO Systems entered into a Multi-Task Consulting Services Agreement effective March 24, 2021, for JEGO Systems to provide SCADA, control systems and network integrator services, for use at any facilities owned and/or operated by NCPA, NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, The Geothermal Facility will be going out to bid for the Enterprise Management System (EMS) Upgrade which comprise the Effluent and Field Management Systems in FY22, and JEGO Systems is a potential bidder for this work; and

WHEREAS, NCPA now desires to increase the not to exceed amount from \$225,000 to \$1,000,000 to ensure sufficient funds are available should JEGO be the successful bidder on this or future work; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into said Agreement, for continued use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2021 by the following vote on roll call:

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

DAVID HAGELE
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



FIRST AMENDMENT TO MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND JEGO SYSTEMS

This First Amendment (“Amendment”) to Multi-Task Consulting Services Agreement is entered into by and between the Northern California Power Agency (“Agency”) and JEGO Systems (“Consultant”) (collectively referred to as “the Parties”) as of _____, 2021.

WHEREAS, the Parties entered into a Multi-Task Consulting Services Agreement, dated effective March 24, 2021, (the “Agreement”) for JEGO Systems to provide SCADA, control systems and network integrator services, for use at any facilities owned and/or operated by Agency, its Members, Southern California Public Power Authority (“SCPPA”), or by 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 \$225,000 to a NOT TO EXCEED amount of \$1,000,000; and

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

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

NOW, THEREFORE, the Parties agree as follows:

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

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

The remainder of Section 2 of the Agreement is unchanged.

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

SIGNATURES ON FOLLOWING PAGE

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///

Date:_____

NORTHERN CALIFORNIA POWER AGENCY

Date:_____

JEGO SYSTEMS

RANDY S. HOWARD,
General Manager

WEB JESSUP,
CEO

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel



MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND JEGO SYSTEMS

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 JEGO Systems, a corporation with its office located at 5098 Foothills Blvd., Suite 3-486, Roseville, CA 95747 ("Consultant") (together sometimes referred to as the "Parties") as of March 24, 2020 ("Effective Date") in Roseville, California.

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

- 1.1 Term of Agreement.** The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later than five (5) year from the date this Agreement was signed by Agency, whichever is shorter.
- 1.2 Standard of Performance.** Consultant shall perform the Services in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged and for which Consultant is providing the Services. Consultant represents that it is licensed, qualified and experienced to provide the Services set forth herein.
- 1.3 Assignment of Personnel.** Consultant shall assign only competent personnel to perform the Services. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Consultant shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- 1.4 Services Provided.** Services provided under this Agreement by Consultant may include Services directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.
- 1.5 Request for Services.** At such time that Agency determines to use Consultant's Services under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific services to be performed ("Requested Services"), may include a not-to-exceed monetary cap on Requested Services and expenditures authorized by that Purchase Order, and a time by which the Requested Services shall be completed. Consultant shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Consultant chooses to perform the Requested Services. If Consultant agrees to perform the Requested Services or begins to perform the Requested Services, , 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 TWO HUNDRED TWENTY FIVE THOUSAND** dollars (\$225,000) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

2.1 Invoices. Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- The beginning and ending dates of the billing period;
- Services performed;
- The Purchase Order number authorizing the Services;
- At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder; and
- At Agency's option, when the Consultant's Scope of Work identifies tasks, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction.

Invoices shall be sent to:

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

2.2 Monthly Payment. Agency shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.

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

2.4 Authorization to Perform Services. The Consultant is not authorized to perform any Services or incur any costs whatsoever under the terms of this Agreement until receipt of written authorization from the Contract Administrator.

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

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

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

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

4.2 Commercial General and Automobile Liability Insurance.

4.2.1 Commercial General Insurance. Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.

4.2.2 Automobile Liability. Consultant shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Consultant, on or off Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and

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

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

4.3 Professional Liability Insurance. Not Applicable

4.4 All Policies Requirements.

4.4.1 Verification of coverage. Prior to beginning any work under this Agreement, Consultant shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

4.4.2 Notice of Reduction in or Cancellation of Coverage. Consultant shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.

4.4.3 Higher Limits. If Consultant maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Consultant.

4.4.4 Additional Certificates and Endorsements. If Consultant provides services to Agency members, SCPPA, and/or SCPPA members pursuant to this Agreement, Consultant shall provide certificates of insurance and policy endorsements, as referenced in Section 4.4.1, naming the specific Agency member, SCPPA or SCPPA member.

4.4.5 Waiver of Subrogation. Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.

4.5 Consultant's Obligation. Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this

Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

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

Section 6. STATUS OF CONSULTANT.

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

Consultant shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the

payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Consultant and Agency acknowledge and agree that compensation paid by Agency to Consultant under this Agreement is based upon Consultant's estimated costs of providing the Services, including salaries and benefits of employees, agents and subcontractors of Consultant.

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

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

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

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

Section 7. LEGAL REQUIREMENTS.

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

Section 8. TERMINATION AND MODIFICATION.

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

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

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

8.4.3 Retain a different consultant to complete the Services not finished by Consultant; and/or

8.4.4 Charge Consultant the difference between the reasonable and necessary 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.

8.5 **Options Upon Breach by Agency.** If Agency materially breaches any of the terms of this Agreement, Consultant's remedies shall include, but not be limited to, the following:

8.5.1 Immediately terminate the Agreement;

8.5.2 Recover all sums for all Work provided to the Agency prior to the date of termination.

Section 9. KEEPING AND STATUS OF RECORDS.

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

9.2 **Consultant's Books and Records.** Consultant shall retain records of any charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, , from the date of final payment to the Consultant to this Agreement.

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

9.4 Confidential Information and Disclosure.

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

9.4.2 Non-Disclosure of Confidential Information. During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confident; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.

9.4.3 Permitted Disclosure. Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:

9.4.3.1 Disclosure to employees, agents, consultants, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.

9.4.3.2 Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and

9.4.3.3 Disclosure by Agency in response to a request pursuant to the California Public Records Act.

9.4.4 Handling of Confidential Information. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested

by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

9.4.5 Security Management. During the term of this Agreement, Consultant shall maintain and enforce a written security program or programs that (i) complies with Industry Recognized Standards¹; (ii) includes administrative, technical, cyber and physical safeguards reasonably designed to protect the confidentiality, integrity and availability of Agency's property, equipment and systems; (iii) is appropriate to the nature, size, and complexity of Consultant's business operations; and (iv) complies with any applicable laws and regulations that are applicable for the geographic regions in which Consultant does business.

9.4.6 Supply Chain Risk Management. Consultant shall establish, document, and implement risk management practices for supply chain delivery of hardware, software (including patches), and firmware provided under this Agreement from any of Consultant's suppliers consistent with Industry Recognized Standards. Such program shall consist of policies to protect software integrity and authenticity, Consultant remote access protections, information system planning, and Consultant risk management and procurement controls.

9.4.7 Logical Security. Consultant must employ logical security process such as access controls, review of such controls and secure remote access authentication to the Services and supporting networks used to provide the Services on which equipment is accessed, processed, stored, transferred or maintained. Consultant shall use internal operational processes to keep the equipment secure and accessible to only authenticated, authorized users of such equipment. Consultant shall also use security protocols and access parameters denying direct access to Agency equipment via direct file access and/or direct database access.

¹ Industry Recognized Standards means all applicable and leading practice industry security standards and rules and regulations relating to Consultant's Services and operations, its supply chain, facility, control center, equipment procurement and management, and all other property, including without limitation any relevant global industry recognized security standards.

- 9.4.8 Network and system Security.** Consultant shall use Industry Recognized Standards to secure network perimeters that will protect equipment from unauthorized access and ensure the confidentiality, integrity and availability of equipment on or accessed through Consultant's systems. This includes, but is not limited to, use of firewalls, firewall maintenance, firewall log management, network segmentation, intrusion detection and security information and event management capabilities.
- 9.4.9 Physical Security.** Consultant must use appropriate facility entry controls to limit, monitor, and log physical access that comply with Industry Recognized Standards for all locations.
- 9.4.10 Notification of Breach.** Consultant shall notify Agency, by telephone or email within twenty-four (24) hours whenever a security incident consisting of when: (i) Consultant knows or reasonably believes that Agency Confidential Information received from Agency has been disclosed or compromised; (ii) knows or reasonably believes Consultant's cybersecurity protections have been breached; or (iii) Consultant knows or reasonably believes Consultant's and potentially Agency's equipment has been compromised by any code, program, or sub-program whose known or intended purpose is to damage or interfere with the operation of computer system containing the code, program or sub-program, or to halt, disable or interfere with the operation of the software, code, program, or sub-program, itself, or (iv) knows or reasonably believes Consultant's and potentially Agency's equipment may be compromised through any device, method, or token that permits any person to circumvent the normal security of the software or the system or equipment.

Section 10. MISCELLANEOUS PROVISIONS.

- 10.1 Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- 10.2 Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- 10.3 Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in

whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

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

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

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

Web Jessup
Chief Executive Officer
JEGO Systems
5098 Foothills Blvd., Suite 3-486
Roseville, CA 95747

Any written notice to Agency shall be sent to:

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

With a copy to:

Jane E. Luckhardt
General Counsel

Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

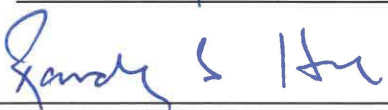
- 10.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- 10.10 Integration; Incorporation.** This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- 10.11 Alternative Dispute Resolution.** If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:
- 10.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
 - 10.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
 - 10.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
 - 10.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
 - 10.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
 - 10.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*

- 10.12 Controlling Provisions.** In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Consultant's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Consultant's Proposal, the Purchase Order shall control.
- 10.13 Counterparts.** This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- 10.14 Construction of Agreement.** Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- 10.15 No Third Party Beneficiaries.** This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Consultant provide Services to an Agency member, SCCPA and/or a SCPPA member (collectively for the purposes of this section only "Member") pursuant to section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Services relating to such Member.

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

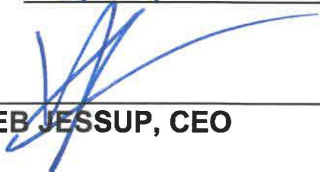
NORTHERN CALIFORNIA POWER AGENCY

Date 3/24/21


RANDY S. HOWARD, General Manager

JEGO SYSTEMS

Date 2021-03-23


WEB JESSUP, CEO

Attest:


Assistant Secretary of the Commission

Approved as to Form:

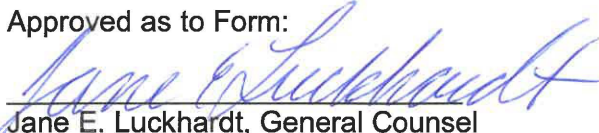

Jane E. Luckhardt, General Counsel

EXHIBIT A

SCOPE OF SERVICES

JEGO Systems ("Consultant") shall provide SCADA, control systems and network integrator services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by Agency, its Members, Southern California Public Power Authority (SCPPA) or SCPPA Members.

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

- Cybersecurity Services
- System Integration
- Consulting Services
- Standards Development
- Technical Support
- Education & Training

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 hereof. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

- All services to be performed will be quoted at Fixed Price.

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

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

EXHIBIT C

CERTIFICATION

Affidavit of Compliance for Contractors

I, Web Jessup, CEO
(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

JEGO Systems
(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]
(Signature of officer or agent)

Dated this 23 day of March, 20 21.

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



Commission Staff Report – *DRAFT*

COMMISSION MEETING DATE: May 27, 2021

SUBJECT: 2021 Steam Field Operation and Generation Forecast; Applicable to the following: NCPA Geothermal Facility

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

Approve Resolution 21-XX authorizing the 2021 Steam Field Operations and Forecast Report dated April 2021 as the Geothermal Operating Protocol effective July 1, 2021. This Operating Protocol is to remain in effect until replaced by the Commission.

BACKGROUND:

The Steam Field Operations Forecast Report is an in-depth study of The Geysers reservoir relative to the operation of NCPA's Geothermal facility and provides a generation forecast of the facility. This report will act as the Operating Protocol with the goal of maximizing the generation output.

The Operating Protocol currently uses a two-zone strategy with wells on the west side of the NCPA lease producing to both Plant #1, Units #1 and #2. Wells on the east side of the NCPA lease produce to Plant #2, Unit #4. This Protocol will maximize generation while allowing for scheduling flexibility and reduction of load under the proper economic conditions. For 2021, these conditions are:

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

The Protocol establishes a 2021 annual generation target of 95 gross MW.

FISCAL IMPACT:

The 2020-21 approved Geothermal budget covers the proposed action.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

Pending Committee review.

AFTER FACILITIES APPROVAL: On May 5, 2021, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution 21-XX
- 2021 Steam Field Operations and Forecast Report

DRAFT

RESOLUTION 21-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING THE 2021 STEAM FIELD OPERATIONS FORECAST REPORT
2021 GEOTHERMAL OPERATING PROTOCOL

AS THE

(reference Staff Report #XXX:21)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains on behalf of the project owners a Geothermal Facility near Middletown, CA, consisting of two power plants with containment areas, and 79 steam production and injection wells connected by roads; and

WHEREAS, the 2021 Steam Field Operations Forecast Report is an in-depth study of The Geysers reservoir relative to the operation of NCPA's GEO facility and provides a generation forecast of the facility. This report will act as the Operating Protocol with the goal of maximizing the generation output. The Operating Protocol currently uses a two-zone strategy with wells on the west side of the NCPA lease producing to Plant 1, Units #1 and #2. Wells on the east side of the NCPA lease produce to Plant #2, Unit #4. This Protocol will maximize generation while allowing for scheduling flexibility and reduction of load under the proper economic conditions. For 2021, these conditions are:

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

The Protocol establishes a 2021 annual generation target of 95 gross MW; and

WHEREAS, 2021-22 approved budget covers the proposed action; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency adopts the Steam Field Operations and Forecast Report dated April 2021 as the Geothermal Operating Protocol, effective July 1, 2021, to remain in effect until replaced by the Commission

PASSED, ADOPTED and APPROVED this ____ day of _____, 2021, by the following vote on roll call:

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

DAVID HAGELE
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



Steam Field Operations

Forecast Report – April 2021



**Lightening Strikes Prior to Glass Fire
August 17, 2020**

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

April 2021
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NCPA
Generation Services Business Unit
Steam Field Operations and Forecast Report

April 2021

Introduction

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

- I. A review of steam field operations, the water injection program, and the Geothermal Operating Plan.
- II. A review of 2020 reservoir performance with a generation forecast for 2021.

Analysis of geothermal reservoir during 2020 indicates a continued 1.9% harmonic decline consistent with prior projections. The average generating capacity for 2020 was 94.9 MW gross or 84.1 MW net. Net generation for the year was 739 GWhrs. The Glass Fire and several Public Safety Power Shut-Off events during the year were major disruptions to NCPA's ability to generate electricity in 2020. While NCPA's Geothermal Facility did exceed its net generation goal of 726.6 GWhrs for the year, net generation would have been higher had these events not occurred.

Water injection continues to be essential in maintaining reservoir pressure and mitigating steam production decline rates. In 2020, the Southeast Geysers Effluent Pipeline (SEGEP) project brought an average of 3,127 gpm of wastewater to The Geysers. NCPA and a nearby power producer, Calpine, share the water. NCPA received 28.4% of the wastewater delivered in 2020 and this amount is intentionally lower than in 2019. Numerical modeling has indicated reduced injection will result in higher steam production. Combined with steam condensate, NCPA's 2020 water injection rates averaged 1,589 gpm and is a significant reduction from the previous year's rate of 3,103 gpm.

In 2021, water injection will continue to be reduced since California is currently experiencing drought conditions. Wastewater from the SEGEP pipeline is composed of approximately 50% freshwater from Clearlake and 50% secondary treated wastewater from Lake County Sanitation District. Due to drought conditions, the freshwater portion will be withheld from SEGEP from May 1, 2021 through April 30, 2022. There have been no detrimental effects observed in the steam field as a result of the reduced injection this past year nor are they expected in 2021. The field is being closely monitored for any changes in decline rate.

The 2021 generation forecast projects the average generating capacity to be 93 MW gross or 82.9 MW net for the year. NCPA geothermal facilities are forecast to generate 726.6 GWhrs net in 2021. The estimated 25 year projected net reserves are 14,716 GWhrs.

In terms of the fiscal year, the FY 2022 net generation is forecast to be 724.8 GWhrs.

I. STEAM FIELD OPERATIONS

In This Section

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

A. Overview of 2020 Production and Injection

NCPA continued to operate the Geothermal Project as a base load facility in 2020. Steam production for the year was 15.1 Glbs with water injection of 6.9 Glbs for an annual mass replacement ratio of 46%. Water injection on the NCPA lease is a combination of steam condensate recovered from the cooling towers and wastewater from the Southeast Geysers Effluent Pipeline (SEGEP). The water from the SEGEP pipeline is shared between NCPA and a nearby power producer. NCPA received 28.4% of the wastewater in 2020. The average total injection rate for NCPA decreased from 3,103 gpm in 2019 to 1,589 gpm in 2020.

The reduction in water injection was intentional as reservoir modeling studies indicated that reduced injection would lead to increased steam production and higher reservoir pressures. The projected improvement in reservoir conditions would be as a result of higher boil off rate or recovery of existing reserves.

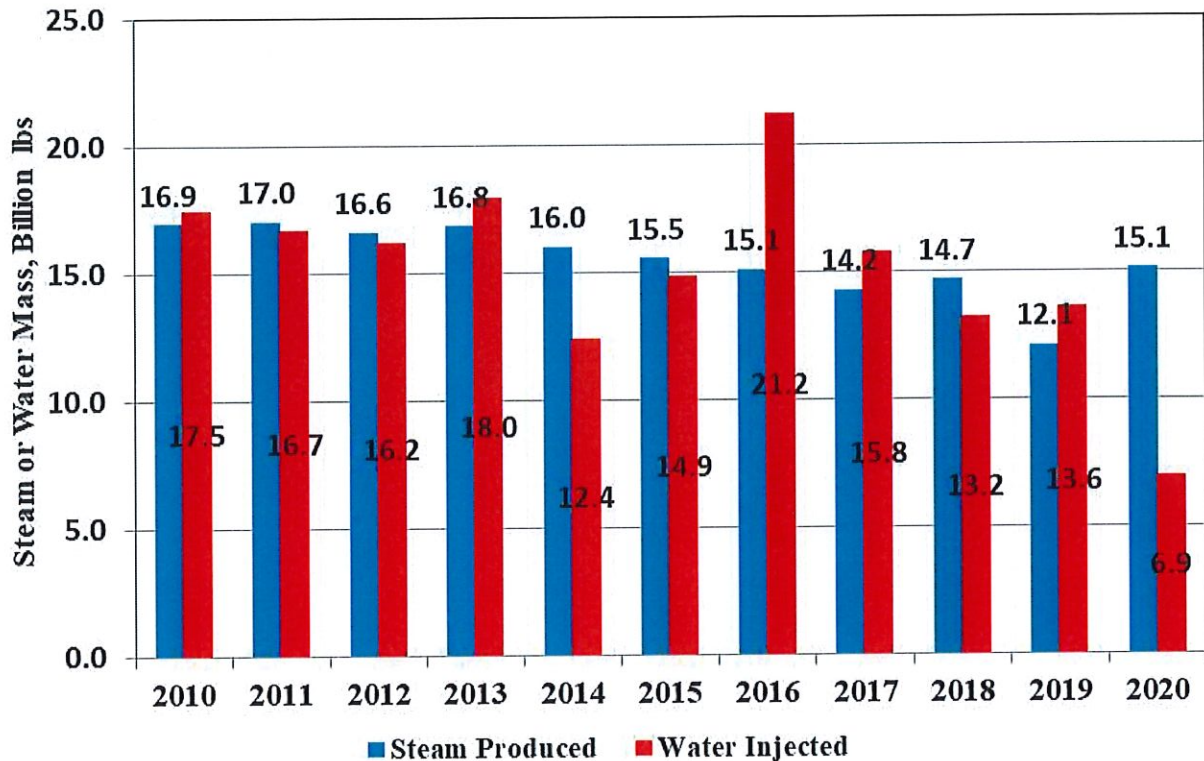
The cumulative mass replacement ratio from plant startup in 1983 through 2020 was 67.1% (*Figure 1*). The net mass withdrawal of steam from the reservoir (Mass Produced less Mass Injected) through 2020 is 229.8 billion lbs.

The average generation capacity level for 2020 was 94.9 MW gross or 84.1 MW net. These values were slightly lower than forecast capacity of 95.1 MW gross or 85.2 MW net and mainly due to the impacts of the Glass wildfires and Public Safety Power Shut-Off events (PSPS). These events shutdown transmission lines for extended periods of time. In 2021, generation capacity is forecast to be 93 MW gross or 82.9 MW net.

Production Highlights during 2020 include:

- ▶ Annual gross generation level in 2020 was 94.9 MW or 84.1 MW net.
- ▶ Average annual mass replacement in the reservoir (i.e., the percentage of steam production replaced by water injection) was 46% in 2020. The 2020 average injection rate was 1,589 gpm and was a significant decrease over the previous year.
- ▶ The Glass Fires and PSPS events caused infrequent outages of the transmission lines from The Geysers resulting in slightly lower than expected generation levels.
- ▶ In 2020, the generation capacity is forecast to be 93 MW gross or 82.9 MW net.

Historical NCPA Production and Injection Levels
Figure 2



B. Water Injection Program

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

1. Southeast Geysers Effluent Pipeline (SEGEP)

The Southeast Geysers Effluent Pipeline (SEGEP) project is a pipeline bringing water to The Geysers for the purpose of supplementing water injection in the field. During normal years, NCPA receives an average 2,700 gpm out of 5,600 gpm water that is delivered. Injection of this water into The Geysers reservoir helps mitigate reservoir

pressure declines and increases steam reserves. *Figure 6* shows the historical SEGEP deliveries for NCPA and the total for the project.

SEGEF deliveries were significantly reduced this past year. In 2020, numerical modeling studies indicated that reduced water injection would increase recovery of reserves by increasing the boil off rate of previous injected water. Overall injection was reduced by approximately 50% for this reason. While there are encouraging signs of improved steam production and other reservoir characteristics, nothing conclusive has been determined.

In 2020, the SEGEP wastewater was composed of approximately 50% secondary treated effluent and 50% freshwater taken from Clearlake. The freshwater component of SEGEP is subject to an annual restriction if the water level in Clearlake gets too low. The Rumsey gauge in Lakeport is the official device measuring the lake level and if it drops below 3.5 ft, the SEGEP pipeline loses access to freshwater.

This area of California is currently in a drought condition with the lake level measuring around 1.1 ft. Starting on May 1, 2021 and continuing through April 30, 2022, the SEGEP pipeline will be operating at reduced levels and supply only secondary treated wastewater. This is not expected to impact NCPA's steam production or decline rate. Similar conditions were encountered in 2014 and no detrimental effects were observed.

Based on a 2013 tracer study, it was determined that the recovery of injected water as steam took approximately five years. Approximately 40% of the water was recovered within one year and the remaining 60% of injected water was recovered over the subsequent five years. Since the SEGEP pipeline has been in operation since 1997, there are significant "banked" reserves that prevent any sudden changes to the rate of steam production or decline rate. If the numerical modeling results are correct, another year of reduced injection should facilitate increased steam production and a rebound of reservoir pressures and temperatures.

2. Injection Operations

With reduced injection, there were six different wells used for injection in 2020. The injection strategy continues to be an effort to spread water over large geographic area and limit injection rates down individual wells as much as possible. The 2020 overall injection rate of combined steam condensate and wastewater was 1,589 gpm and is a significant decrease from the 2019 rate of 3,103 gpm.

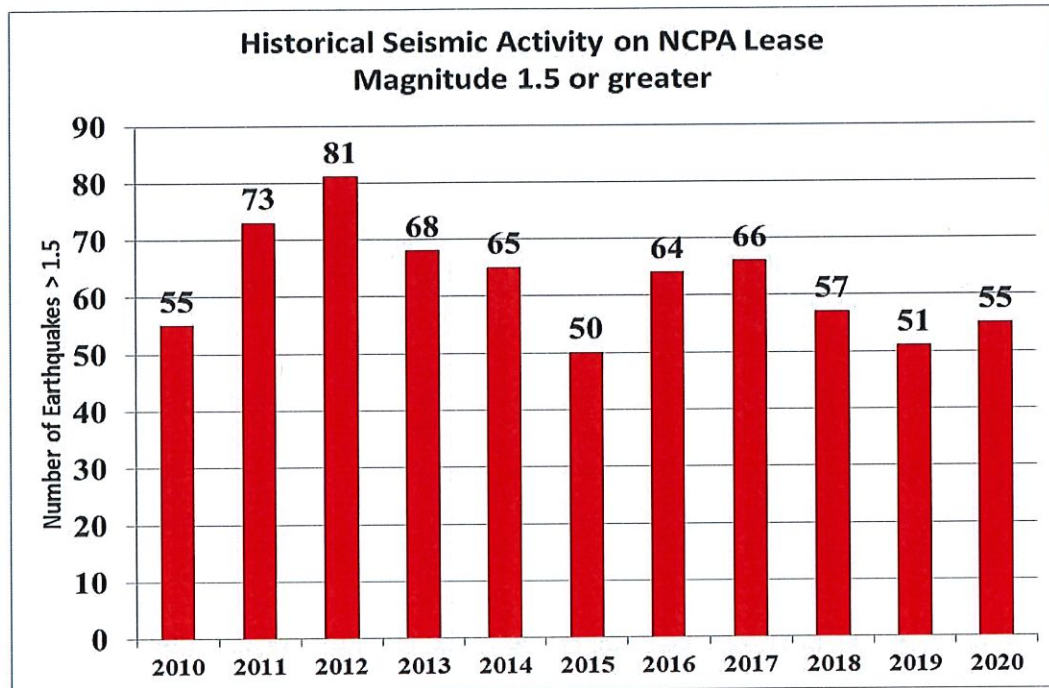
Figure 7 shows the relative location of the eight injection wells on the NCPA lease. Three of these wells, E-8, H-4, and Q-10, are only connected to the SEGEP pipeline and therefore receive only effluent or wastewater. The remaining three wells received a combination of condensate and wastewater. *Figure 8* and *Table 1* show the relative amounts and type of water each well received in 2020.

3. Micro-earthquake Activity

Studies by the United States Geological Survey (USGS) and others have demonstrated that the steam production and water injection at The Geysers can cause frequent micro

seismic events to occur. As a result, NCPA and the other operators are required to continuously monitor and report on the earthquakes that occur within The Geysers geothermal field. *Figure 9* is a map showing the locations of the 603 seismic events of magnitude 1.5 and larger that occurred within The Geysers field during 2020. Eight of these events had an earthquake magnitude of 3.0 or greater. The largest seismic event was a magnitude 4.06 on a competitor lease.

On the NCPA lease, there were 55 events of $M=1.5$ or greater. The figure below shows the historical seismic activity for the NCPA lease from 2010 through 2020. The seismic activity for 2020 was slightly higher than in 2019.

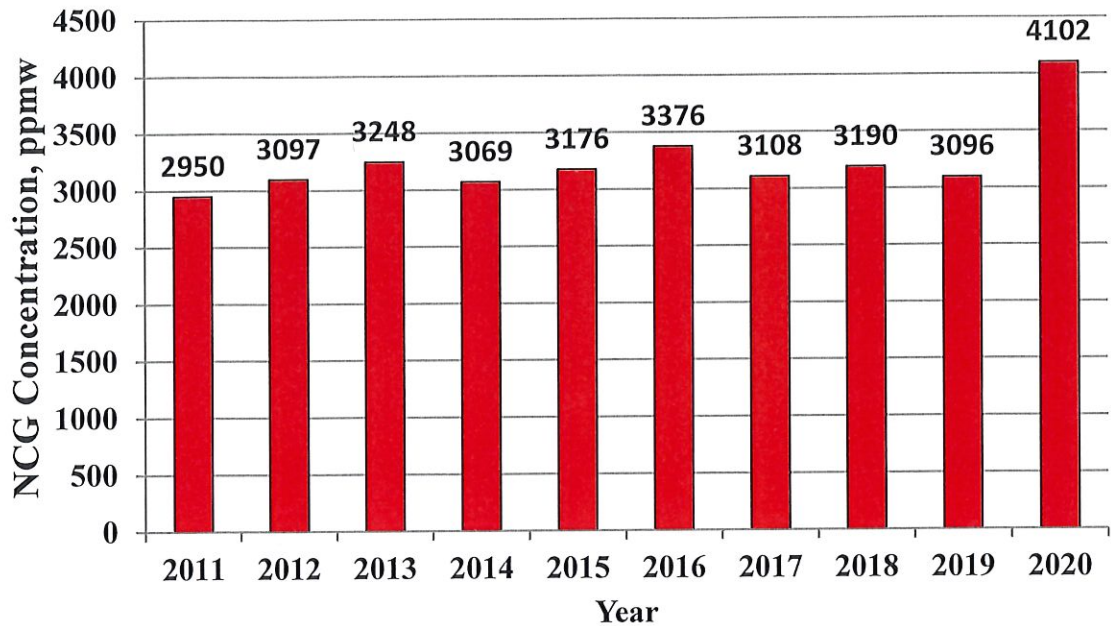


4. Non-condensable Gas (NCG) Trends

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

As shown in the graph below, NCG concentrations were up significantly as a result of reduced water injection in 2020. Efforts to reduce NCG production will require either increased injection or a more targeted approach going forward. Since the SEGEP pipeline will be operating at a reduced level this next year, any available water should be directed toward the highest NCG production areas. A review of *Table 4* indicates that well pads E, N, P, and Q are likely targets. *Figure 10* shows a comparison of the relative changes throughout the field.

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



Injection Highlights during 2020 include:

- ▶ Water injection was significantly reduced in 2020 and approximately 50% of previous levels.
- ▶ The reduction in water injection was intentional as numerical modeling results indicated that reduced injection would eventually lead to increase steam production and a rebound in reservoir pressures and temperatures.
- ▶ This area of California is currently experiencing drought conditions. The SEGEP pipeline will lose access to approximately 50% of the normal volume as freshwater from Clearlake will not be available until April 30, 2022. Similar conditions were incurred in 2014 and no detrimental effects were observed in either steam production or decline rate.
- ▶ Non-condensable gas production was up significantly due to the reduced injection in 2020. Targeted injection will be necessary to bring this level down.

C. Geothermal Operating Plan

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

A Geothermal Operating Plan, effective July 1, 2020, was approved and recommended by the Coordinated Operating Group (COG), the Generation Services Business Unit, and the NCPA Commission during the May 28, 2020 meeting. The Plan establishes an Operating Protocol that maintains a Two Zone operation within the NCPA lease. The Two Zone Operation was implemented to improve operational response time during unit trips and maximize generation on the NCPA lease while minimizing reservoir communication with nearby competitor operations.

Under this Protocol, the Geothermal Units have normally operated in a baseload condition. Steam production from the west side of the lease, Zone 1, is directed to Units #1 and #2 at Plant #1. Steam production from the east side of the lease, Zone 2, is directed to Plant #2, Unit #4 (*Figure 5*).

While the Protocol maximizes generation, it does allow for scheduling flexibility and reduction of load under the proper economic conditions. The increase in renewable energy in the electrical market has resulted in economic incentives where daily curtailment of the Geothermal Units is being considered. It is recommended that the Operating Protocol allow curtailments to occur under the following conditions.

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

The flexibility to adjust generating loads under these conditions will allow NCPA to take advantage of economic incentives while protecting the power plant equipment, steam field infrastructure and reservoir.

2020 RESERVOIR PERFORMANCE REVIEW

In This Section

- ▶ Reservoir Pressure Distribution
- ▶ Reservoir Pressure and Flowrate Decline
- ▶ 2020 Generation Review
- ▶ 2020 Numerical Modeling Results
- ▶ 2021 Generation Forecast

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

A. Reservoir Pressure Distribution

One of the most important parameters in predicting and explaining reservoir performance is static reservoir pressure. *Figure 11* shows areal pressure distributions of static reservoir pressures for January 2020 and January 2021. In general, wells on the west side of the field have the lowest reservoir pressures (< 80 psig) and the east side of the field continues to be the higher pressure area.

B. Reservoir Pressure and Flowrate Decline

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

In 2021, shut-in pressures were either recorded or estimated for 60 wells. The estimated average wellhead shut-in pressure is 73 psig. The average well on the NCPA lease flows 28,700 lb/hr at 43.2 psig.

The projected flowrate decline is shown in *Figure 13*. In 2020, the overall steam production rate averaged 1,780 klbs/hr. The flow rate in 2021 is projected to be 1,626 klbs/hr. The overall steam field decline is a harmonic 1.9%. Reservoir parameters of steam flow, pressure and temperature will be closely monitored in the upcoming year to determine if the impact of reduced water injection matches numerical modeling results.

C. 2020 Generation Review

Net generation for the NCPA Geo Facilities in 2020 was 739 GWhr. For FY 2021, it is estimated that net generation will be around 743.6 GWhrs. The 2020 gross generation level was an average of 94.9 MW while net generation level averaged 84.1 MW.

D. 2020 Numerical Modeling Results

In 2020, a consulting firm, Geothermex, was hired to update the production and injection history for NCPA's numerical model. They were then tasked with forecasting production trends focusing on addressing two situations. These were:

- Evaluating the impact of reduced water injection and the optimal level of water injection for maintaining steam production.
- Estimating the timeline for possible retirement of Plant #2 with transfer of its steam supply to Plant #1.

After updating the production and injection history in the numerical model, a base case forecast was developed using the current operating conditions. For comparison, seven forecast runs were made with scenarios ranging from eliminating all water injection to reducing water injection by 50%. Conclusions from these forecast runs were:

- Additional effluent or wastewater (SEGEF) injection may not be beneficial at the present time. While effluent injection clearly reduced the steam production decline rate in the past, the reservoir may have reached a saturated state resulting in less efficient generation of secondary steam.
- The optimal injection is around 25% of the current levels.
- Distributing water injection over spread-out locations significantly slows down steam production decline compared to injecting in a concentrated area.

The study further states that reduced injection is warranted and while the forecast show that eliminating effluent (SEGEF) injection provides the optimal steam production decline trend, this action should be done in a gradual manner to confirm this finding. Consequently, NCPA has reduced water injection this past year but has not been eliminated it altogether.

Regarding the possible retirement of Plant #2, the same forecast runs were used to determine when overall generation would decline to approximately 88 MW gross or 80 MW net. This criterion was used since recent experience showed that Plant #1 is generally capable of achieving 80 MW of net generation when Plant #2 is shutdown and all available steam production is re-directed to Plant #1. The limitation is a result of Plant #1's ability to handle the non-condensable (NCG) load and not necessarily the steam flow.

Results of this evaluation suggested that the possible retirement of Plant #2 would range from June 2027 to March 2031 depending on the response to the various water injection scenarios. Although the results indicate that Plant #2 may be retired as early as two years from now, it should be noted that the numerical model is merely a tool for showing trends under various production and injection scenarios.

Forecasts from the numerical model are usually very conservative when compared to actual history and don't necessarily reflect what will happen. There are several reasons for the difference between actual results and the numerical model forecasts. The numerical model is not capable of accounting for the superheated temperatures of the reservoir and underestimates the recovery of injected water as steam. The model also does not account for the ability to move water injection around the field or change injection rates as needed. Further, the model does not account of the ability to modify plant equipment and make more efficient use of the available steam production.

The Geothermex study was undertaken to confirm the possible impacts of reduced injection and begin developing a plan for the possible retirement of Plant #2. Numerous questions will need to be addressed before there are any serious discussions regarding Plant #2 retirement.

E. 2021 Generation Forecast

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

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

The most recently developed forecast of steam field operations is illustrated in *Figure 12*. This graph shows NCPA's 38-year historical data for both steam production and water injection, and forecasts of production and injection out to year 2045. With the startup of the Effluent Pipeline in September 1997, and with its continuous operation projected thereafter, the average annual mass replacement is approximately 100%. Water injection is capable of continually exceeding steam production in the future and if water injection continues at current levels, a gradual decline in steam production will approach a near-sustainable level of 80% of the mass of water injected.

The total amount of steam capable of being produced by NCPA through year 2045 is currently estimated at 289 billion pounds. Remaining net generation reserves are estimated to be 14,716 GWhr. *Figures 14 and 15* respectively show the projected net generation capacity and total net generation amount for 2020 through 2045. *Table 5* details the annual gross and net generation. A more detailed monthly five year forecast can be found in *Table 6*.

In 2021, it is estimated that the Geo Facilities will generate 726.6 GWhrs net. Respective gross and net generation capacity for the year are projected to be 93 MW gross and 82.9 MW net. For FY 2022, the net generation amount is projected to be 724.8 GWhrs.

SUMMARY

Steam Field Operations

- The NCPA lease produced 15.18 Glbs steam while injecting 6.9 Glbs of water resulting in an average mass replacement of 46% for the year.
- The average gross generation level for 2020 was 94.9 MW gross while the net generation level was 84.1 MW net.
- The average water injection decreased from 3,103 gpm in 2019 to 1,589 gpm in 2020.

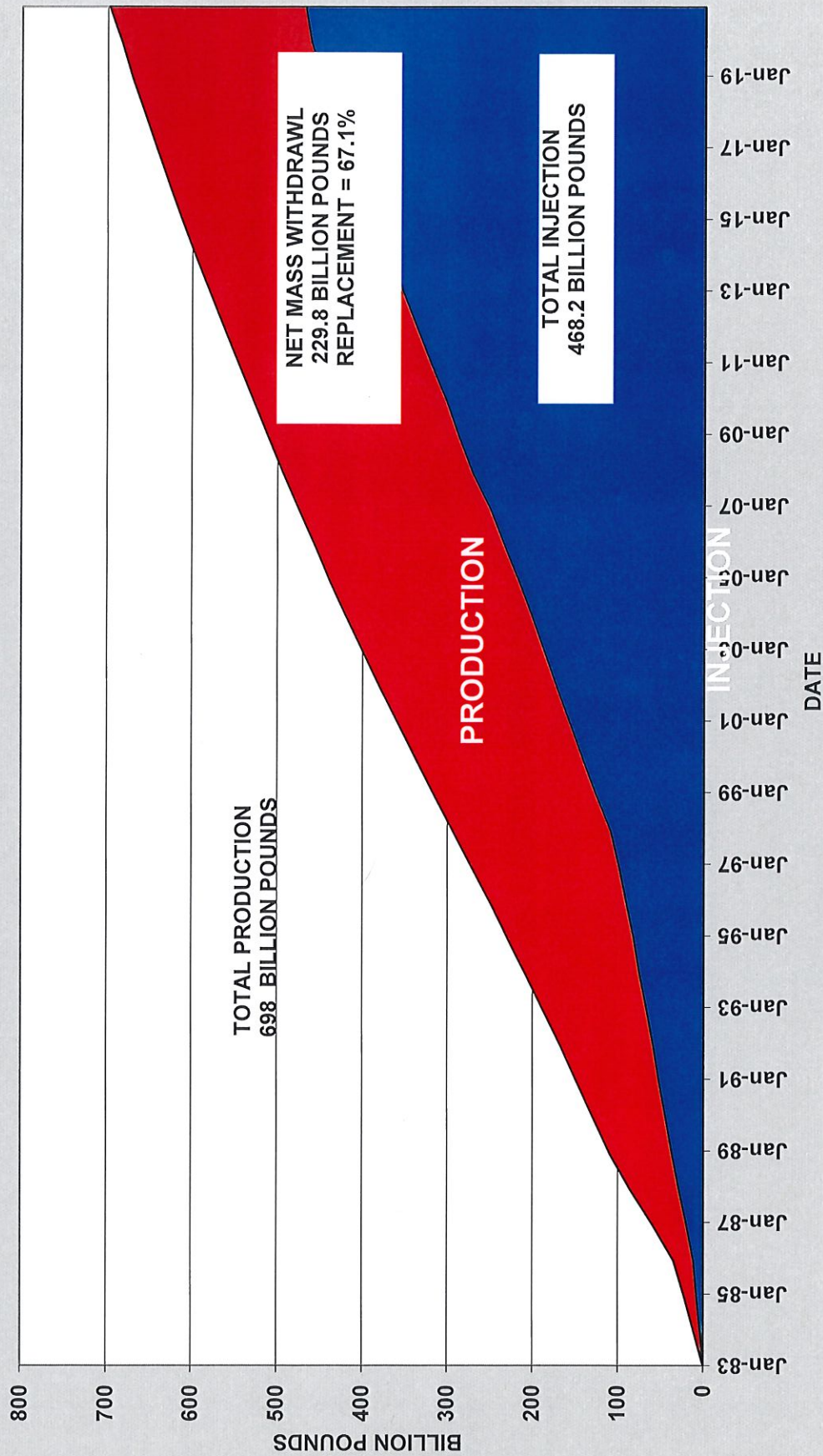
2020 Reservoir Performance Review

- Average shut-in wellhead pressure for the NCPA lease was 73 psig. The average well produces 28.7 kph at 43.2 psig.
- The steam field deliverability was 1,780 klbs/hr in 2020. The projected 2021 deliverability is 1,626 klbs/hr. The projected harmonic decline rate going forward is 1.9%.

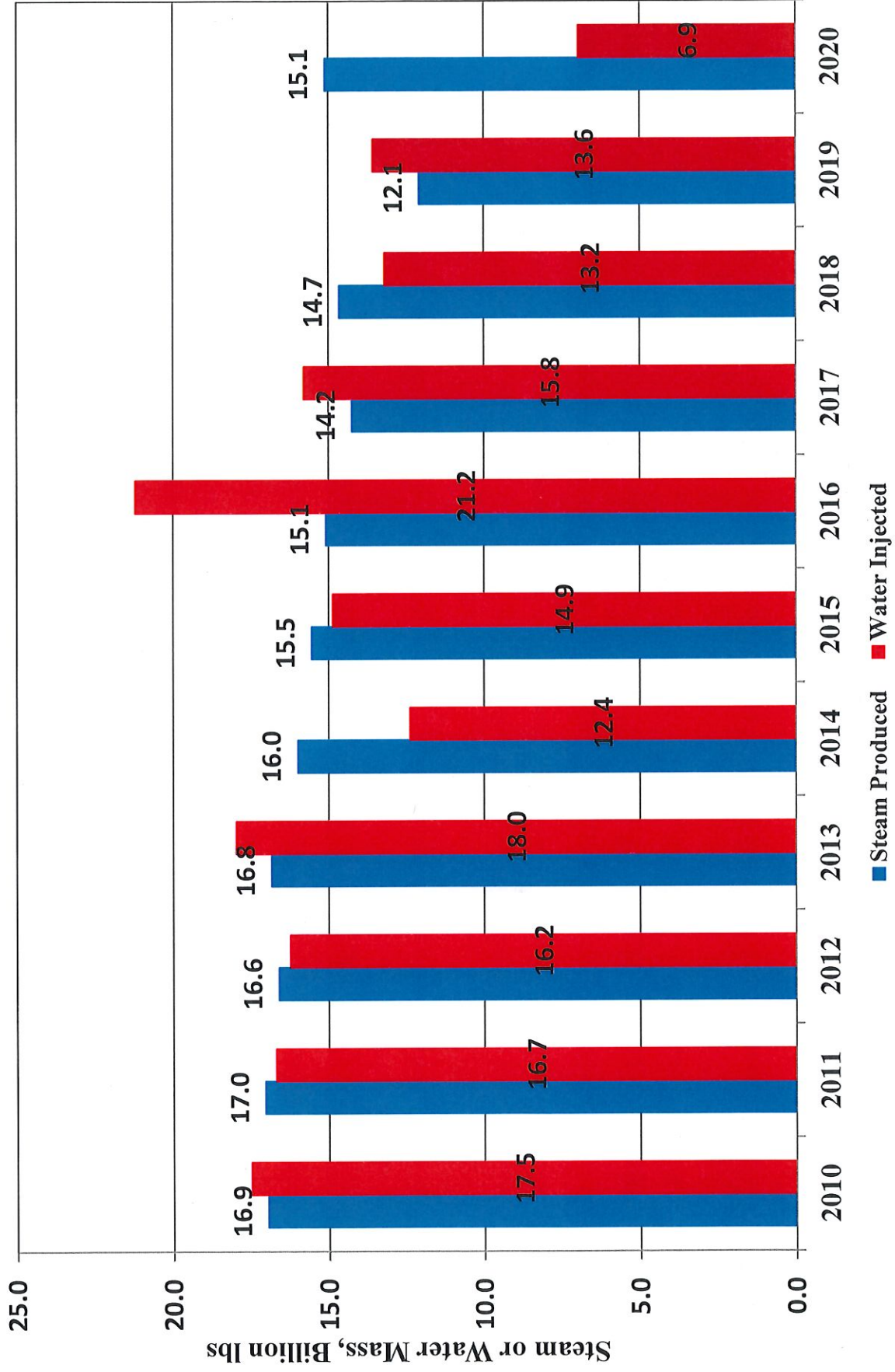
2020 Generation Review, Numerical Modeling and 2021 Generation Forecast

- Net generation for 2020 was 739 GWhrs. For FY 2021, net generation is projected to be 743.6 GWhrs.
- Numerical modeling results indicated:
 - Reduced water injection is warranted since the reservoir may have become saturated resulting in a less efficient generation of secondary steam.
 - The optimal injection rate would be to eliminate all effluent (SEGEF) injection and inject only steam condensate recovered from the plants.
 - The reduction in water injection should be gradual to confirm the reservoir responses to reduced injection.
 - The possible retirement of Plant #2 ranges from June 2027 to March 2031. This assumes the steam supply continues to decline to a net generation level of 80 MW net and is dependent upon steam field responses to reduced water injection.
 - Model results are considered to be very conservative and don't necessarily reflect actual operating experience.
- The generation forecast covers the period from 2020-2045. Recoverable steam reserves are 289 billion pounds with the total amount of remaining net generation estimated at 14,716 GWhr.
- The gross generation capacity for 2021 is expected to be 93 MW or 82.9 MW net.
- The net generation forecast for year 2021 is 726.6 GWhr net. For FY 2022, the net generation amount is projected to be 724.8 GWhrs.

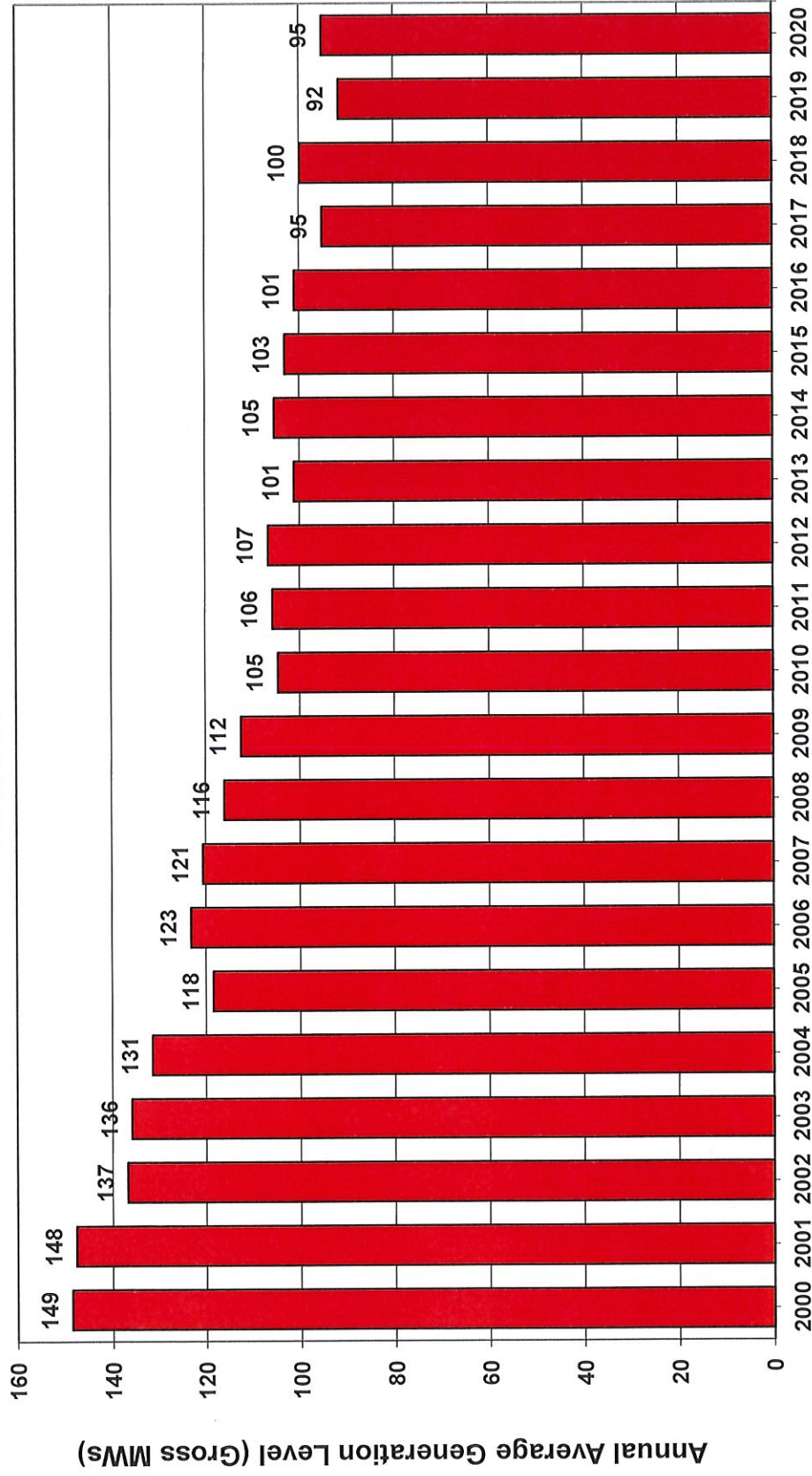
FIGURE 1
NCPA STEAMFIELD
CUMULATIVE PRODUCTION AND INJECTION



Historical NCPA Production and Injection Levels Figure 2



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



*Generation levels include downtime for unit outages and overhauls

2020 Gross Steam Utilization

Figure 4

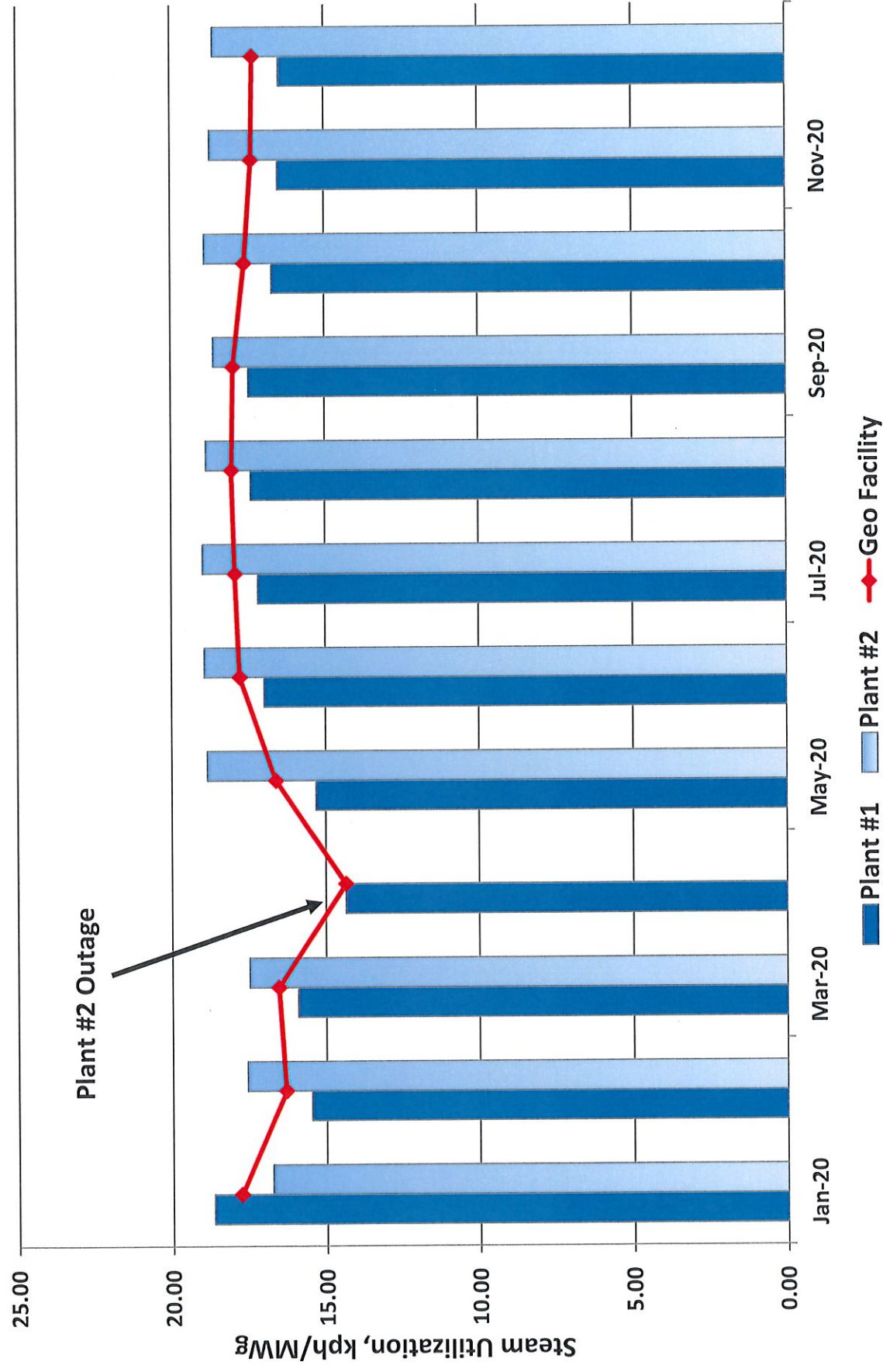
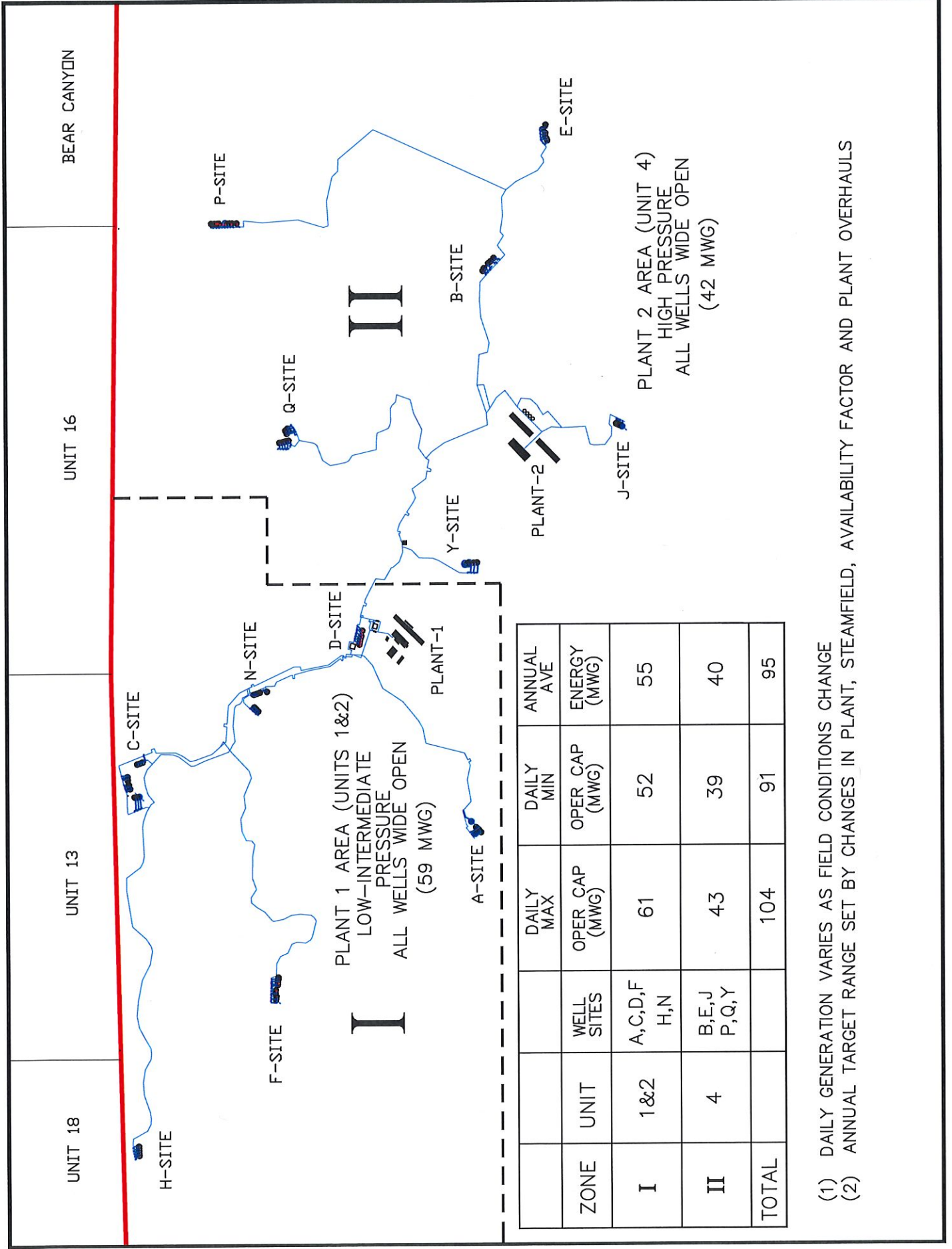


Figure 5. GEOTHERMAL OPERATIONAL PLAN 2021



- (1) DAILY GENERATION VARIES AS FIELD CONDITIONS CHANGE
- (2) ANNUAL TARGET RANGE SET BY CHANGES IN PLANT, STEAMFIELD, AVAILABILITY FACTOR AND PLANT OVERHAULS

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

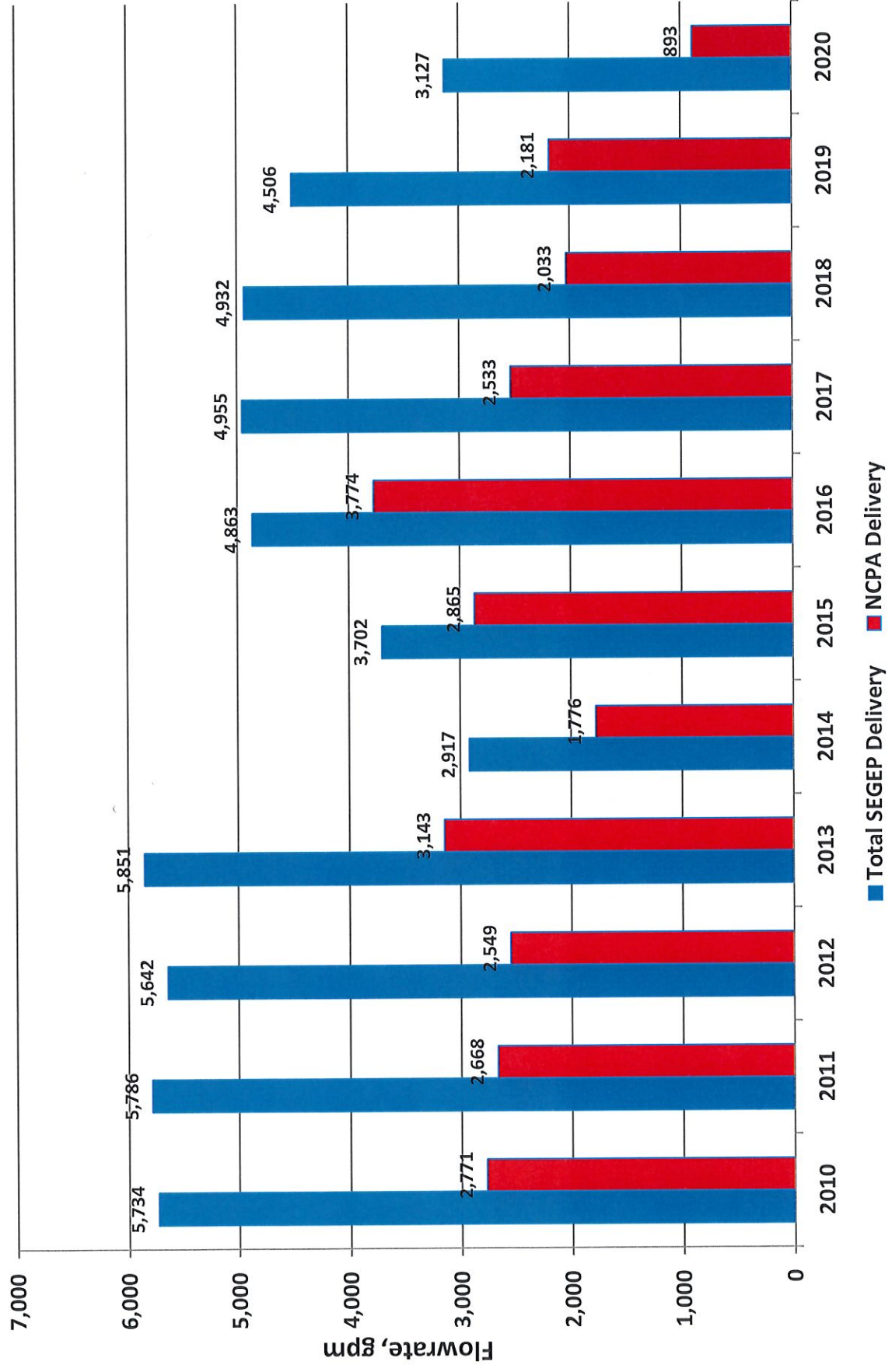


FIGURE 7 MODIFIED PLAN OF INJECTION

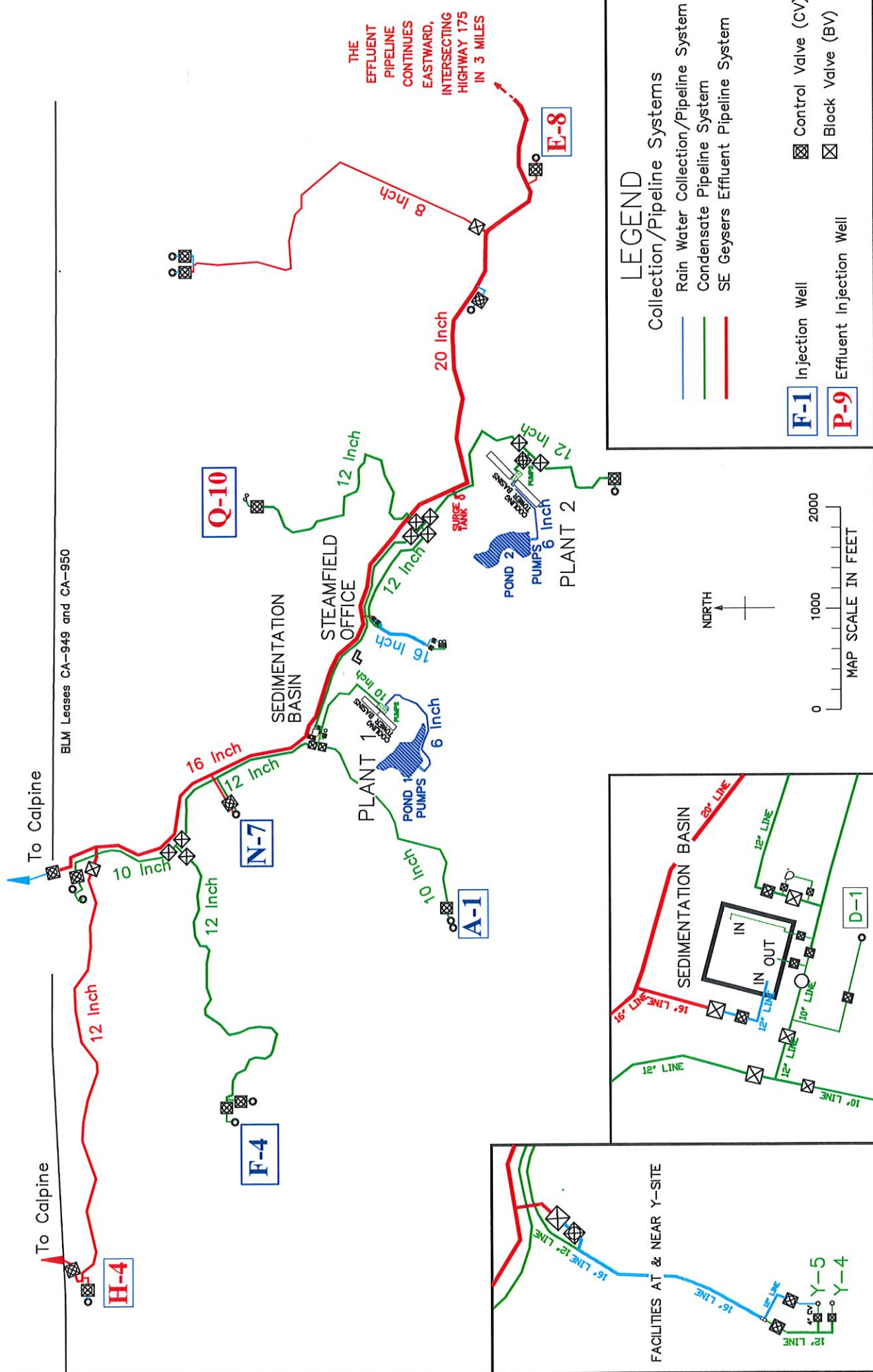
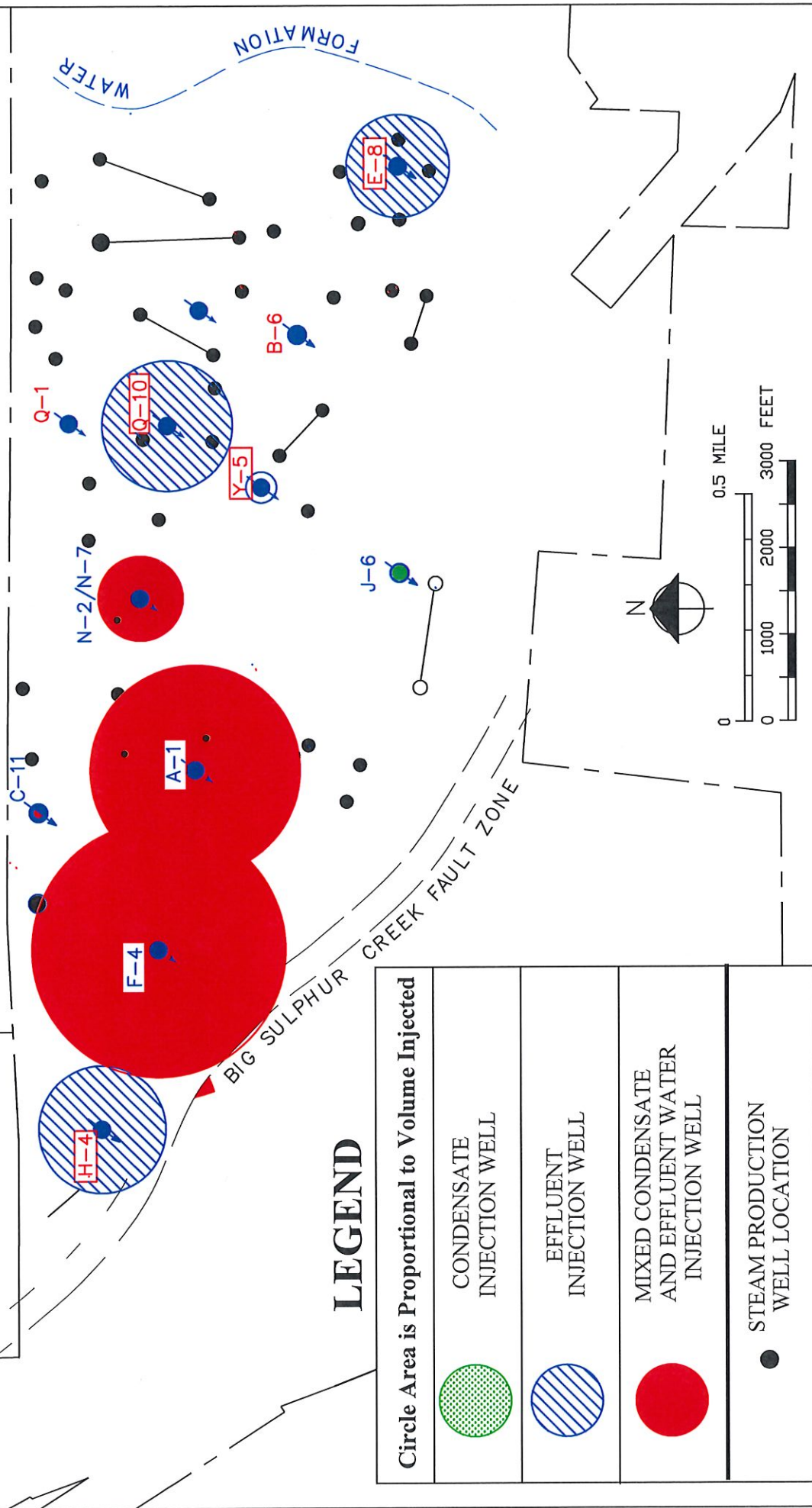


FIGURE 8
NCPA STEAM FIELD
RELATIVE DISTRIBUTION OF INJECTED WATERS
DURING 2020

CALPINE

CALPINE



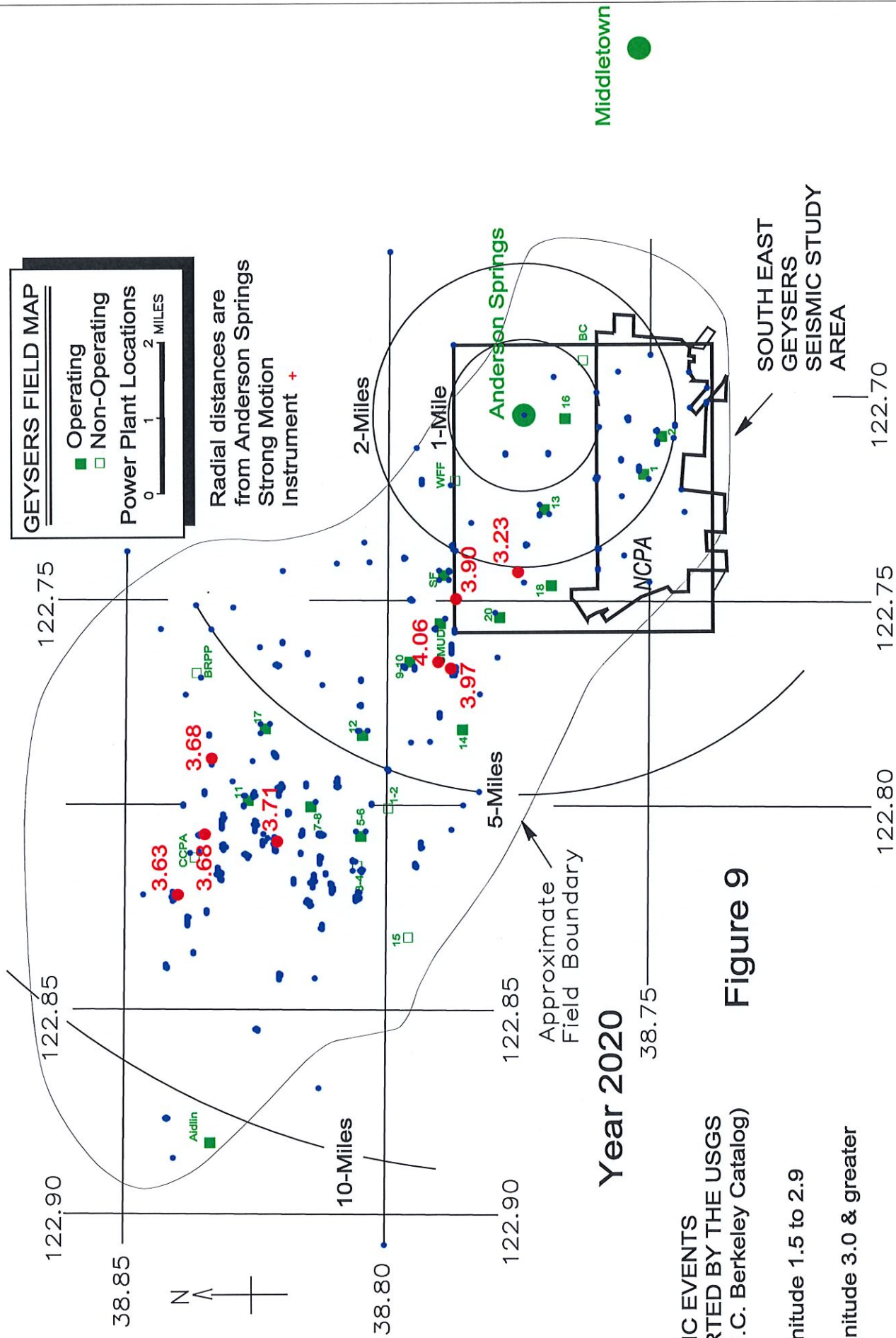


FIGURE 10
NONCONDENSABLE GAS CONCENTRATIONS
IN NCPA STEAM (ppm)

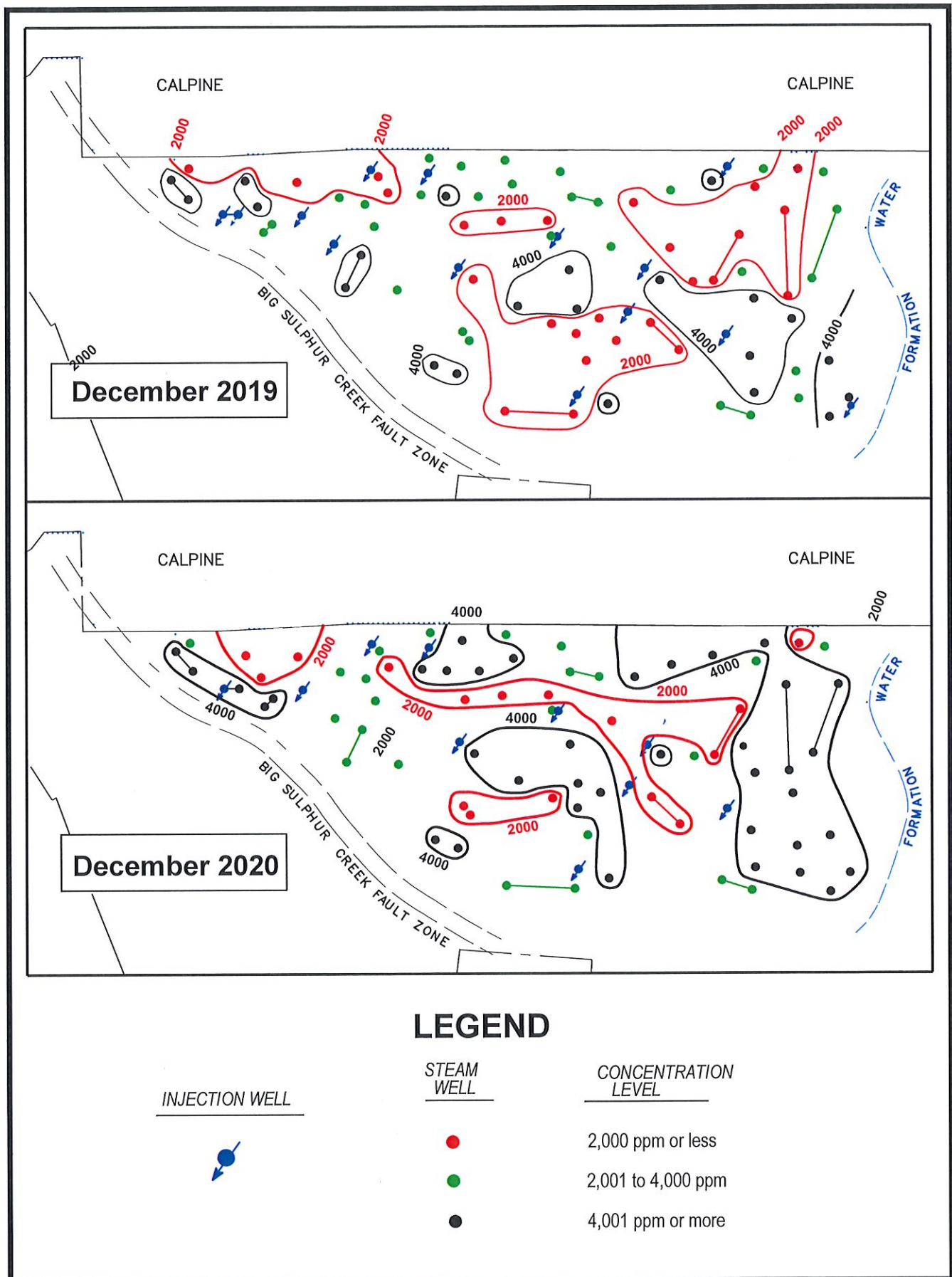
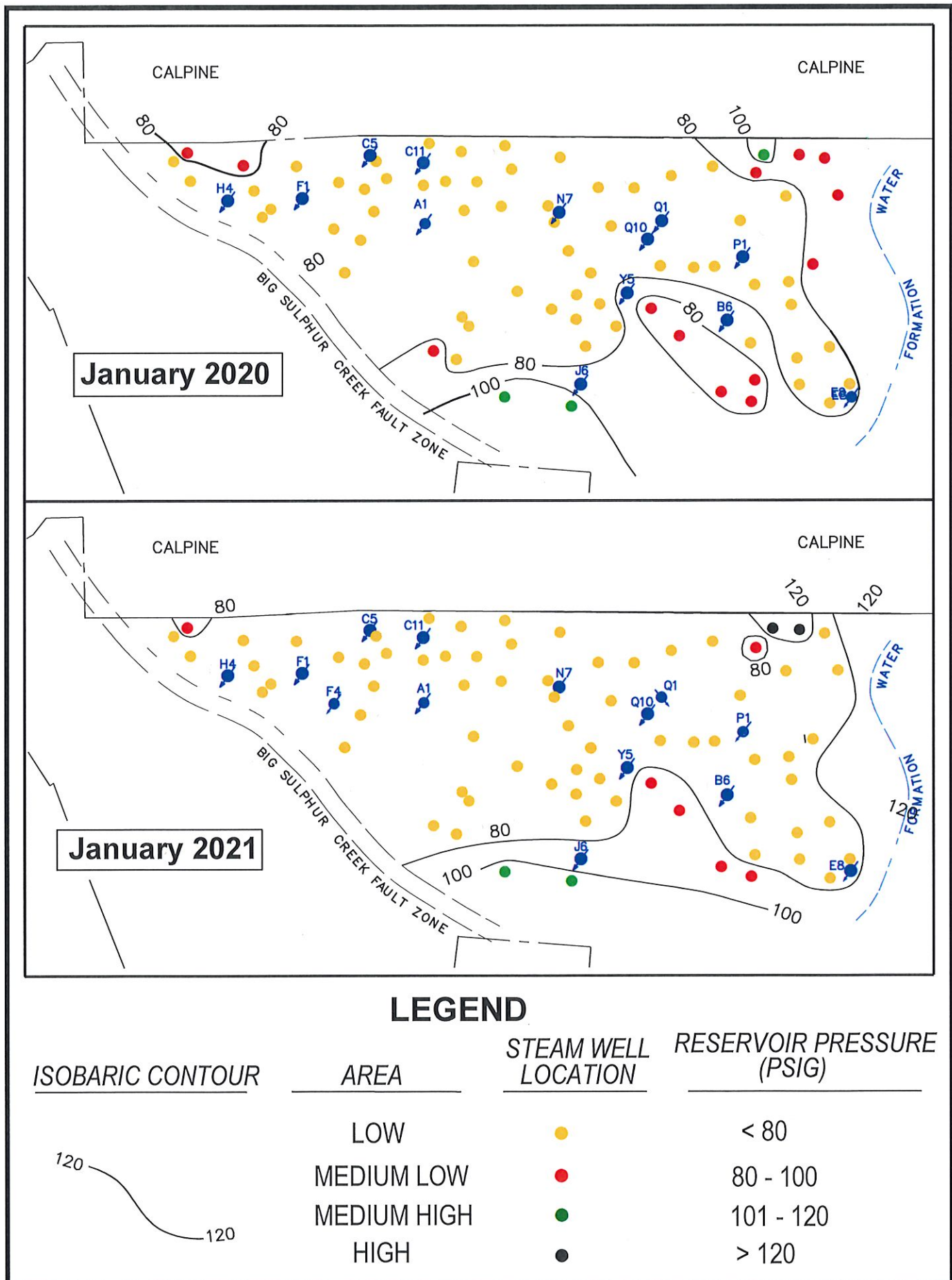


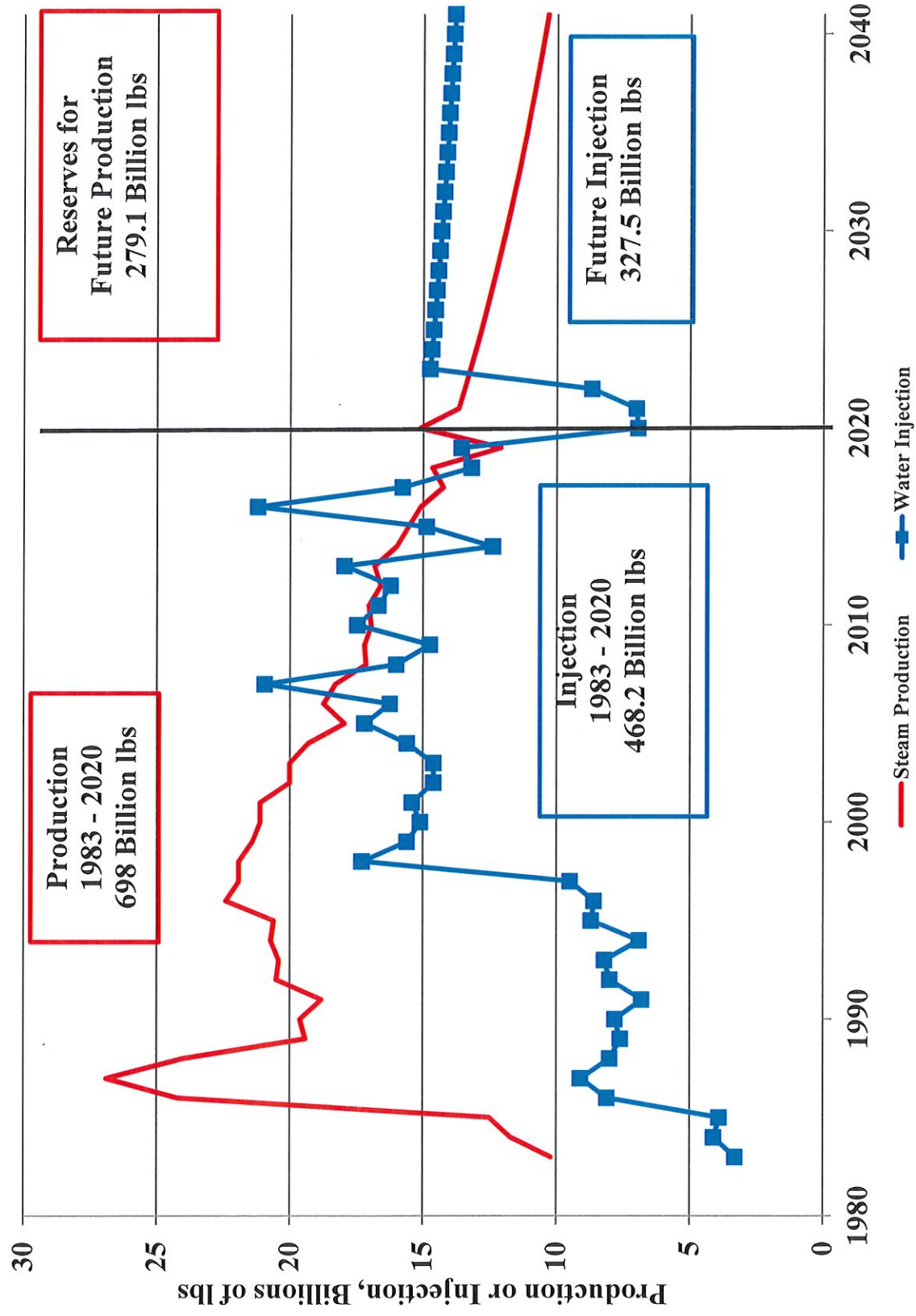
FIGURE 11

NCPA STEAM FIELD RESERVOIR PRESSURE



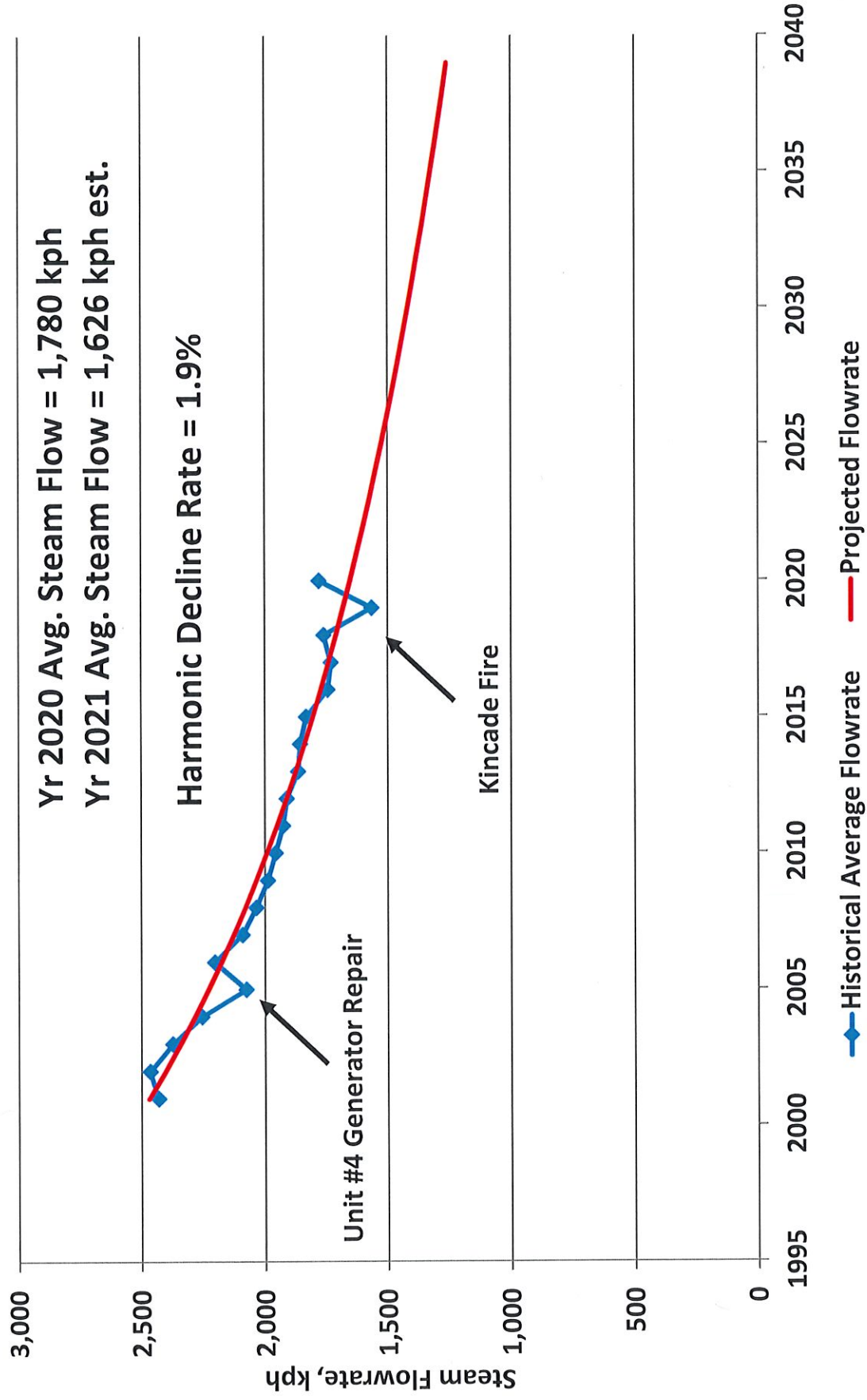
Historical and Forecast Steam Production & Water Injection

Figure 12



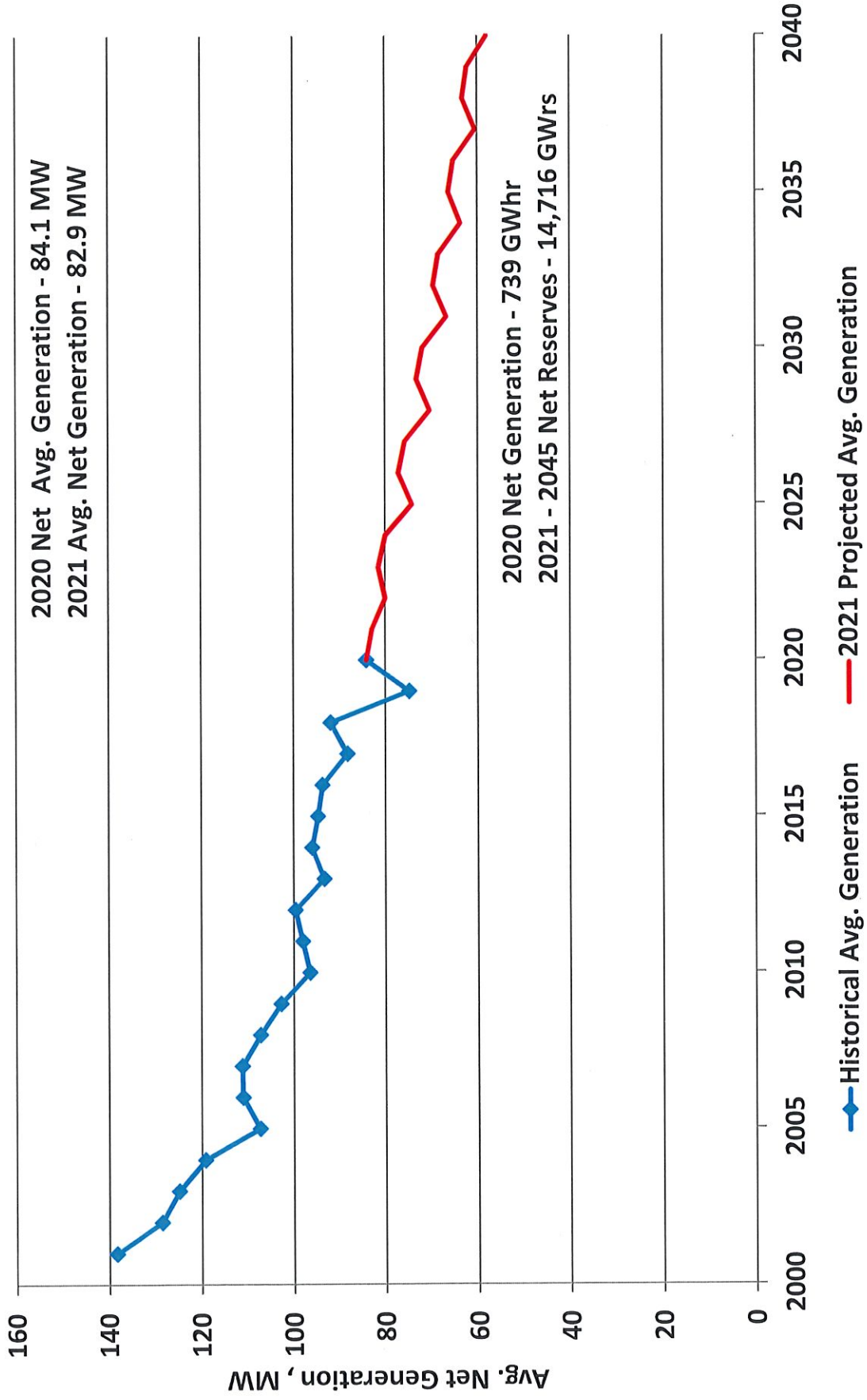
Historical and Projected Steam Flowrates Combined NCPA Plant #1 & #2

Figure 13



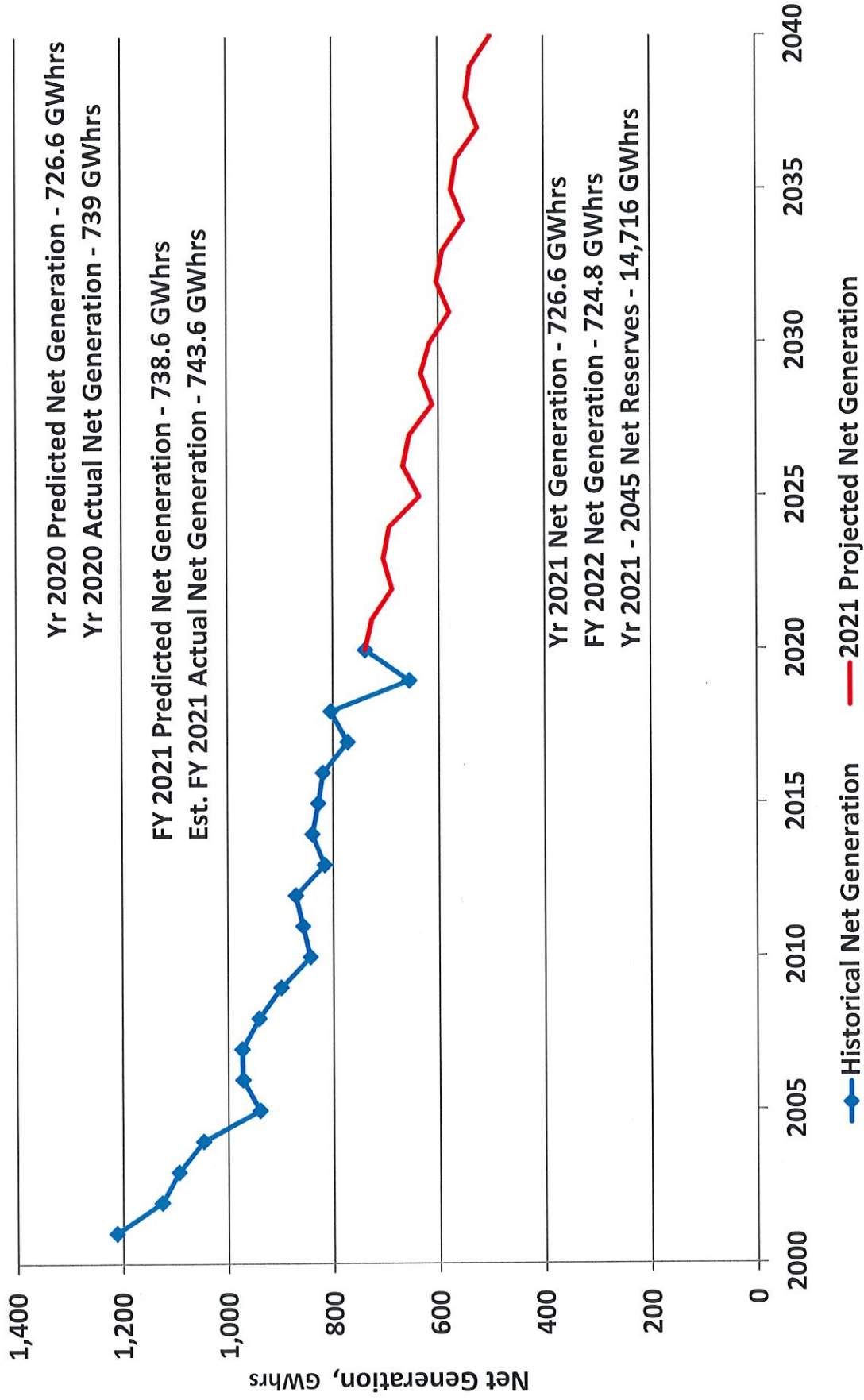
Historical and Projected Average Net Generation Level Combined NCPA Plants #1 & #2

Figure 14



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

Figure 15



**Table 1. ANNUAL REPORT OF NCPA INJECTION AT THE GEYSERS STEAM FIELD
for Year 2020 (in 1000 Gallons)**

[illegible]

TABLE 2. GEOTHERMAL FACILITIES
Summary Table

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Generation (gross) (MWh)	926,368	936,868	886,004	922,995	903,299	887,299	833,211	874,403	711,902	833,866
(MW)	105.7	106.7	101.1	105.4	103.1	101.0	95.1	99.8	81.3	94.9
Generation (net) (MWh)	858,747	872,422	816,824	862,842	837,379	819,149	772,398	804,425	655,798	739,049
(MW)	98.0	99.3	93.2	98.5	95.6	93.3	88.2	91.8	74.9	84.1
Protocol (MW gross)	108	108	108	107	107	107	105	105	102	101
Steam Conversion (Lbs / Kw)	18.39	17.72	18.99	17.33	17.20	17.00	17.10	16.76	16.97	18.12
Steam Delivered (Billion Lbs)	17.0	16.597051	16.83	16.00	15.54	15.08	14.24	14.65	12.08	15.11
Load Flexibility (gross) Monthly High (MW)	109	110	109	110	110	110	103	105	110	107
Monthly Low (MW)	106	105	82	104	104	103	77	83	68	67
Injection Total (Billion Lbs)	16.66	16.22	17.96	12.39	14.86	21.21	15.78	13.19	13.57	6.95
Condensate (Billion Lbs)	4.79	5.00	4.21	4.62	4.20	4.94	4.64	4.36	3.86	3.29
Effluent (Billion Lbs)	11.82	11.18	13.75	7.77	12.50	16.27	11.13	8.83	9.71	3.67
Mass Replacement Annual (%)	97.8%	97.7%	106.7%	77.5%	95.6%	140.6%	110.8%	90.0%	112.3%	46.0%
Cumulative (%)	59.8%	60.9%	62.2%	62.6%	63.4%	65.2%	66.2%	66.7%	67.5%	67.1%
Wells Used For Injection	15	15	13	12	13	11	10	10	8	6
NCPA Micro-seismic Activity M>= 1.5	73	81	68	58	50	64	66	57	51	55
NCPA Micro-seismic Activity Maximum Magnitude Event	3.3	2.91	3.76	4.38	2.99	3.37	2.92	3.09	2.84	2.86
NCG Concentration (ppmw)	2,950	3,097	3,248	3,069	3,176	3,376	3,108	3,190	3,096	4,102

Table 3
RESERVOIR PRESSURE
BY WELL 2021

WELL	PRESS	WELL	PRESS	WELL	PRESS	WELL	PRESS
A-3	72.6	D-1	68.8	H-1	74.2	P-1	
A-4	67.7	D-2	66.4	H-2	87.9	P-2	101.5
A-5	71.0	D-6	76.0	H-3	74.2	P-4	74.9
A-6	76.1	D-7	67.2	H-4	62.6	P-5	137.5
A-SITE	71.9	D-8	67.8	H-5	69.2	P-6	
		D-SITE	69.2	H-SITE	73.6	P-7	73.3
B-2	75.3					P-8	70.5
B-3	76.6	E-1	73.5	J-2	74.4		
B-4	73.8	E-2	73.3	J-3	87.6	P-SITE	96.8
B-5	70.0	E-3	79.3	J-4	90.8		
B-6		E-4	70.1	J-5	101.3	Q-1	
B-SITE	73.9	E-5	74.7	J-SITE	88.5	Q-3	67.9
		E-6	74.5			Q-4	71.4
C-1	65.5	E-8				Q-5	72.9
C-2	65.4	E-SITE	74.2			Q-6	68.3
C-4	66.4			N-1	64.0	Q-7	73.5
C-5	61.4	F-1	66.4	N-2		Q-8	72.7
C-6	65.5	F-2	72.9	N-3	68.3	Q-9	80.0
C-7	65.3	F-3	68.7	N-4	66.2	Q-SITE	72.4
C-8	67.8	F-4		N-5	61.0		
C-9		F-5	75.0	N-6		Y-1	67.5
C-10	67.0	F-6	67.9	N-SITE	66.2	Y-2	62.9
C-SITE	65.5	F-7	67.3			Y-3	58.2
		F-SITE	69.7			Y-4	
						Y-5	
						Y-SITE	62.9

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

60 WELLS TESTED AVE. WELL PRESS EQUALS 73.0 psig

AVE SITE PRESS EQUALS 73.7 psig

AVE. FLOWRATE = 28.7 kph at 43.2 psig

TABLE 4 NCG CONCENTRATIONS (PPMW) 2020 BY WELL, AND SITE AND PROJECT												
WELL		NCG	WELL		NCG	WELL		NCG	WELL		NCG	
A-3	7687		D-1	4777		H-1	1650		P-1			
A-4	3443		D-2	2721		H-2	3456		P-2	5438		
A-5	2328		D-6	1781		H-3	5579		P-4	1763		
A-6	1895		D-7	7241		H-4			P-5	1194		
A-SITE	3838		D-8	3899		H-5	4027		P-6	3187		
			D-SITE	1805		H-SITE	3678		P-7	14937		
B-2	7750								P-8	6548		
B-3	5662		E-1	13102		J-2	5122		P-9			
B-4	4460		E-2	9146		J-3	1344		P-SITE	5511		
B-5	3425		E-3	5142		J-4	3274					
B-6			E-4	9686		J-5	3654		Q-1			
B-SITE	5324		E-5			J-SITE	3348		Q-3	5718		
			E-6	10821					Q-4	1556		
C-1	2994		E-SITE	9579		N-1	1831		Q-5	2415		
C-2	4746					N-2	1415		Q-6	2461		
C-4	3876		F-1	1032		N-3	5443		Q-7	42711		
C-5	12580		F-2	1634		N-4	892		Q-8	4829		
C-6	8244		F-3	3428		N-5	4270		Q-9	3048		
C-7	5873		F-4			N-6	3165		Q-A			
C-8	2896		F-5	580		N-SITE	2836		Q-SITE	8963		
C-9			F-6	1795								
C-A	2552		F-7	2576					Y-1	1964		
C-SITE	5470		F-SITE	1841					Y-2	4858		
									Y-3	5348		
									Y-4	5339		
									Y-5	4911		
									Y-SITE	4377		
VALUES ARE FROM NCPA CHEM LAB ANALYSIS												
Number of wells samples wells sampled=										64		
AVG. WELL NCG =										5049		
AVG. SITE NCG =										4714		
NCG Flow Weighted Avg. =										4102		

2021 Generation - 25 Year Forecast

Table 5

Year	Total Geo Facilities		Plant #1		Plant #2	
	Gross	Net	Gross	Net	Gross	Net
	Generation GWhr	Generation GWhr	Generation GWhr	Generation GWhr	Generation GWhr	Generation GWhr
2021	804.8	726.6	460.8	408.2	344.0	318.3
2022	772.5	687.4	466.0	401.2	306.5	286.3
2023	791.7	704.5	459.9	395.1	331.8	309.4
2024	780.9	693.4	455.2	390.2	325.7	303.2
2025	723.2	636.5	412.2	347.3	311.0	289.1
2026	754.1	666.9	442.5	377.6	311.7	289.3
2027	742.4	655.2	436.9	372.1	305.5	283.1
2028	697.3	611.6	432.7	367.7	264.6	243.9
2029	720.0	632.8	426.2	361.4	293.8	271.4
2030	703.0	616.2	421.0	356.2	282.0	260.1
2031	665.6	578.4	382.6	317.7	283.0	260.6
2032	690.9	603.4	412.1	347.1	278.7	256.2
2033	679.2	592.0	406.2	341.4	273.0	250.6
2034	637.7	552.2	401.4	336.6	236.3	215.6
2035	662.7	575.3	396.8	332.0	265.9	243.3
2036	653.3	565.8	393.3	328.3	260.0	237.5
2037	611.6	524.4	356.7	291.9	255.0	232.6
2038	634.3	547.1	383.5	318.7	250.8	228.4
2039	626.0	538.8	379.2	314.4	246.8	224.4
2040	585.2	500.4	375.0	310.2	210.2	190.3
2041	611.8	524.3	371.9	306.9	239.8	217.3
2042	602.4	515.2	366.9	302.1	235.5	213.1
2043	565.8	478.6	333.9	269.0	231.9	209.5
2044	587.6	500.4	359.1	294.3	228.5	206.1
2045	575.5	488.8	355.3	290.5	220.2	198.3

Notes:

1. Assumes 3 unit operation.
2. Steam Reserves: 289.0 Billion lb.
3. Gross Reserves: 16,879 GWhr
4. Net Reserves: 14,716 GWhr
5. Plant #1 Auxiliary Load is fixed at 7.5 MW.
Plant #2 Auxiliary Load is fixed at 2.58 MW.
6. See Table 5B for scheduled outages.

2021 Generation Capacity - 25 Year Forecast
Table 5A

Year	Plant #1		Plant #2		Total	
	Avg. Gross	Avg. Net	Avg. Gross	Avg. Net	Avg. Gross	Avg. Net
	Gen.	Gen.	Gen.	Gen.	Gen.	Gen.
	MW	MW	MW	MW	MW	MW
2021	53.8	46.3	39.2	36.6	93.0	82.9
2022	53.9	46.4	36.0	33.6	89.9	80.0
2023	53.2	45.7	38.4	35.8	91.6	81.5
2024	52.5	45.0	37.6	35.0	90.1	80.0
2025	47.5	40.0	36.8	34.2	84.3	74.2
2026	51.2	43.7	36.1	33.5	87.2	77.2
2027	50.5	43.0	35.3	32.8	85.9	75.8
2028	49.9	42.4	30.3	27.9	80.2	70.3
2029	49.3	41.8	34.0	31.4	83.3	73.2
2030	48.7	41.2	33.4	30.8	82.1	72.0
2031	44.1	36.6	32.7	30.2	76.9	66.8
2032	47.5	40.0	32.2	29.6	79.7	69.6
2033	47.0	39.5	31.6	29.0	78.6	68.5
2034	46.4	38.9	27.1	24.8	73.6	63.7
2035	45.9	38.4	30.5	27.9	76.4	66.3
2036	45.4	37.9	30.0	27.4	75.4	65.3
2037	41.1	33.6	29.5	26.9	70.6	60.5
2038	44.4	36.9	29.0	26.4	73.4	63.3
2039	43.9	36.4	28.6	26.0	72.4	62.3
2040	43.4	35.9	24.6	22.2	68.0	58.1
2041	42.9	35.4	27.7	25.1	70.6	60.5
2042	42.4	34.9	27.2	24.7	69.7	59.6
2043	38.5	31.0	26.8	24.2	65.3	55.2
2044	41.5	34.0	26.4	23.8	68.0	57.9
2045	41.1	33.6	26.0	23.5	67.2	57.1

* Average generation levels plants are capable of achieving.

2021 Scheduled Outages - 25 Year Forecast
Table 5B

Year	Plant #1		Plant #2
	Unit 1	Unit 2	Unit 4
	Scheduled	Scheduled	Scheduled
	Outages	Outages	Outages
	hrs	hrs	hrs
2021	115	115	120
2022	72	72	1008
2023	72	72	72
2024	72	72	72
2025	672	672	72
2026	72	72	72
2027	72	72	72
2028	72	72	1008
2029	72	72	72
2030	72	72	72
2031	672	672	72
2032	72	72	72
2033	72	72	72
2034	72	72	1008
2035	72	72	72
2036	72	72	72
2037	672	672	72
2038	72	72	72
2039	72	72	72
2040	72	72	1008
2041	72	72	72
2042	72	72	72
2043	672	672	72
2044	72	72	72
2045	72	72	72

2021 Generation - 5 Year Forecast
Table 6

Date	Total Geo Facilities		Plant #1		Plant #2	
	Gross	Net	Gross	Net	Gross	Net
	Generation GWHr	Generation GWHr	Generation GWHr	Generation GWHr	Generation GWHr	Generation GWHr
Jan-21	70.3	65.4	46.7	43.3	23.6	22.1
Feb-21	67.9	62.6	42.5	38.6	25.4	24.0
Mar-21	69.3	64.4	34.3	31.3	35.0	33.1
Apr-21	62.0	68.8	31.0	39.6	31.0	29.2
May-21	52.9	34.5	27.9	15.3	25.0	19.2
Jun-21	67.9	60.7	39.2	33.8	28.8	26.9
Jul-21	70.1	62.6	40.4	34.9	29.7	27.7
Aug-21	70.0	62.5	40.4	34.8	29.6	27.7
Sep-21	67.6	60.4	39.0	33.7	28.6	26.7
Oct-21	69.8	62.3	40.3	34.7	29.5	27.6
Nov-21	67.4	60.2	38.9	33.6	28.5	26.6
Dec-21	69.6	62.1	40.2	34.6	29.4	27.5
Jan-22	69.5	62.0	40.2	34.6	29.3	27.4
Feb-22	62.7	55.9	36.2	31.2	26.4	24.7
Mar-22	66.5	59.2	40.1	34.5	26.4	24.7
Apr-22	63.1	56.4	34.8	30.0	28.2	26.4
May-22	69.1	61.6	40.0	34.4	29.1	27.2
Jun-22	66.8	59.5	38.6	33.3	28.1	26.3
Jul-22	68.9	61.4	39.9	34.3	29.0	27.1
Aug-22	68.8	61.3	39.8	34.3	29.0	27.0
Sep-22	66.5	59.3	38.5	33.1	28.0	26.1
Oct-22	39.8	34.2	39.8	34.2	0.0	0.0
Nov-22	62.6	55.6	38.4	33.1	24.1	22.5
Dec-22	68.4	60.9	39.7	34.1	28.7	26.8
Jan-23	68.3	60.9	39.6	34.1	28.7	26.8
Feb-23	61.6	54.9	35.7	30.7	25.9	24.1
Mar-23	65.4	58.1	39.5	34.0	25.8	24.1
Apr-23	62.0	55.3	34.4	29.6	27.6	25.8
May-23	68.0	60.5	39.5	33.9	28.5	26.6
Jun-23	65.7	58.4	38.1	32.8	27.5	25.7
Jul-23	67.8	60.3	39.4	33.8	28.4	26.5
Aug-23	67.7	60.2	39.3	33.8	28.3	26.4
Sep-23	65.4	58.2	38.0	32.6	27.4	25.5
Oct-23	67.5	60.0	39.2	33.7	28.2	26.3
Nov-23	65.2	58.0	37.9	32.6	27.3	25.4
Dec-23	67.3	59.8	39.2	33.6	28.1	26.2
Jan-24	67.2	59.7	39.1	33.6	28.1	26.2
Feb-24	62.8	55.8	36.5	31.4	26.2	24.4
Mar-24	64.3	57.0	39.0	33.5	25.3	23.5
Apr-24	61.0	54.3	33.9	29.1	27.0	25.2
May-24	66.8	59.4	39.0	33.4	27.9	26.0
Jun-24	64.6	57.4	37.6	32.3	26.9	25.1
Jul-24	66.6	59.2	38.9	33.3	27.8	25.9
Aug-24	66.6	59.1	38.8	33.3	27.7	25.8
Sep-24	64.3	57.1	37.5	32.1	26.8	24.9
Oct-24	66.4	58.9	38.7	33.2	27.6	25.7
Nov-24	64.1	56.9	37.4	32.1	26.7	24.9
Dec-24	66.2	58.7	38.6	33.1	27.5	25.6
Jan-25	66.1	58.6	38.6	33.1	27.5	25.6
Feb-25	59.6	52.9	34.8	29.8	24.8	23.1
Mar-25	65.9	58.5	38.5	33.0	27.4	25.5
Apr-25	33.5	27.5	16.7	11.9	16.8	15.6
May-25	46.5	39.1	19.2	13.7	27.3	25.4
Jun-25	63.5	56.3	37.2	31.8	26.4	24.5
Jul-25	65.6	58.1	38.4	32.8	27.2	25.3
Aug-25	65.5	58.0	38.3	32.8	27.2	25.3
Sep-25	63.3	56.1	37.0	31.7	26.2	24.4
Oct-25	65.3	57.8	38.2	32.7	27.1	25.2
Nov-25	63.1	55.9	37.0	31.6	26.2	24.3
Dec-25	65.1	57.7	38.2	32.6	27.0	25.1

2021 Generation Capacity - 5 Year Forecast*

Table 6A

Year	Plant #1		Plant #2		Total	
	Avg. Gross	Avg. Net	Avg. Gross	Avg. Net	Avg. Gross	Avg. Net
	Gen. MW	Gen. MW	Gen. MW	Gen. MW	Gen. MW	Gen. MW
Jan-21	62.8	55.3	31.8	29.2	94.6	84.5
Feb-21	63.2	55.7	37.8	35.2	101.1	91.0
Mar-21	46.1	38.6	47.0	44.4	93.1	83.0
Apr-21	54.8	47.3	40.3	37.7	95.1	85.0
May-21	37.5	30.0	33.5	30.9	71.1	61.0
Jun-21	54.7	47.2	40.1	37.6	94.8	84.7
Jul-21	54.6	47.1	40.1	37.5	94.7	84.6
Aug-21	54.5	47.0	40.0	37.4	94.5	84.4
Sep-21	54.5	47.0	39.9	37.3	94.4	84.3
Oct-21	54.4	46.9	39.8	37.3	94.3	84.2
Nov-21	54.4	46.9	39.8	37.2	94.1	84.0
Dec-21	54.3	46.8	39.7	37.1	94.0	83.9
Jan-22	54.2	46.7	39.6	37.0	93.9	83.8
Feb-22	54.2	46.7	39.6	37.0	93.7	83.6
Mar-22	54.1	46.6	39.5	36.9	93.6	83.5
Apr-22	54.1	46.6	39.4	36.8	93.5	83.4
May-22	54.0	46.5	39.3	36.7	93.3	83.2
Jun-22	53.9	46.4	39.3	36.7	93.2	83.1
Jul-22	53.9	46.4	39.2	36.6	93.1	83.0
Aug-22	53.8	46.3	39.1	36.5	92.9	82.9
Sep-22	53.8	46.3	39.0	36.5	92.8	82.7
Oct-22	53.7	46.2	0.0	0.0	53.7	46.2
Nov-22	53.6	46.1	38.9	36.3	92.5	82.5
Dec-22	53.6	46.1	38.8	36.2	92.4	82.3
Jan-23	53.5	46.0	38.8	36.2	92.3	82.2
Feb-23	53.5	46.0	38.7	36.1	92.2	82.1
Mar-23	53.4	45.9	38.6	36.0	92.0	81.9
Apr-23	53.4	45.9	38.6	36.0	91.9	81.8
May-23	53.3	45.8	38.5	35.9	91.8	81.7
Jun-23	53.2	45.7	38.4	35.8	91.7	81.6
Jul-23	53.2	45.7	38.4	35.8	91.5	81.4
Aug-23	53.1	45.6	38.3	35.7	91.4	81.3
Sep-23	53.1	45.6	38.2	35.6	91.3	81.2
Oct-23	53.0	45.5	38.1	35.6	91.1	81.1
Nov-23	52.9	45.4	38.1	35.5	91.0	80.9
Dec-23	52.9	45.4	38.0	35.4	90.9	80.8
Jan-24	52.8	45.3	37.9	35.3	90.8	80.7
Feb-24	52.8	45.3	37.9	35.3	90.6	80.6
Mar-24	52.7	45.2	37.8	35.2	90.5	80.4
Apr-24	52.7	45.2	37.7	35.1	90.4	80.3
May-24	52.6	45.1	37.7	35.1	90.3	80.2
Jun-24	52.5	45.0	37.6	35.0	90.2	80.1
Jul-24	52.5	45.0	37.5	35.0	90.0	79.9
Aug-24	52.4	44.9	37.5	34.9	89.9	79.8
Sep-24	52.4	44.9	37.4	34.8	89.8	79.7
Oct-24	52.3	44.8	37.3	34.8	89.7	79.6
Nov-24	52.3	44.8	37.3	34.7	89.5	79.4
Dec-24	52.2	44.7	37.2	34.6	89.4	79.3
Jan-25	52.1	44.6	37.1	34.6	89.3	79.2
Feb-25	52.1	44.6	37.1	34.5	89.2	79.1
Mar-25	52.0	44.5	37.0	34.4	89.1	79.0
Apr-25	26.0	18.5	37.0	34.4	63.0	52.9
May-25	26.0	18.5	36.9	34.3	62.9	52.8
Jun-25	51.9	44.4	36.8	34.2	88.7	78.6
Jul-25	51.8	44.3	36.8	34.2	88.6	78.5
Aug-25	51.8	44.3	36.7	34.1	88.5	78.4
Sep-25	51.7	44.2	36.6	34.0	88.3	78.3
Oct-25	51.6	44.1	36.6	34.0	88.2	78.1
Nov-25	51.6	44.1	36.5	33.9	88.1	78.0
Dec-25	51.5	44.0	36.5	33.9	88.0	77.9

* Average generation levels plants are capable of achieving.

TABLE 7
2021 FORECAST OF GEOTHERMAL PRODUCTION AND
INJECTION

TIME STEP	DATE			
		STEAM PROD. BLBS	COND INJ BLBS	WATER INJ BLBS
1	2021	13.7	4.4	7.0
2	2022	13.5	4.3	8.7
3	2023	13.2	4.2	14.7
4	2024	13.0	4.2	14.7
5	2025	12.8	4.1	14.6
6	2026	12.6	4.0	14.6
7	2027	12.5	4.0	14.5
8	2028	12.3	3.9	14.4
9	2029	12.1	3.9	14.4
10	2030	11.9	3.8	14.3
11	2031	11.8	3.8	14.3
12	2032	11.6	3.7	14.2
13	2033	11.4	3.7	14.2
14	2034	11.3	3.6	14.1
15	2035	11.1	3.6	14.1
16	2036	11.0	3.5	14.0
17	2037	10.9	3.5	14.0
18	2038	10.7	3.4	13.9
19	2039	10.6	3.4	13.9
20	2040	10.5	3.3	13.9
21	2041	10.3	3.3	13.8
22	2042	10.2	3.3	13.8
23	2043	10.1	3.2	13.7
24	2044	10.0	3.2	13.7
25	2045	9.9	3.2	13.7

NOTES :

- | | | |
|---|-------|-------------------|
| 1. CUM. PRODUCTION AND INJECTION 1983-2020 | 698.0 | Billion Lbs Steam |
| | 468.2 | Billion Lbs Water |
| 2. TOTAL WATER IS CONDENSATE + EFFLUENT + LAKE + POND | | |
| 3. FUTURE STEAM PRODUCTION 2020-2045 = | 289.0 | Billion Lbs |
| 4. FUTURE WATER INJECTION 2020-2045 = | 341.2 | Billion Lbs |



Commission Staff Report – *DRAFT*

COMMISSION MEETING DATE: May 27, 2021

SUBJECT: NCPA 2021 Wildfire Mitigation Plan Assessment Report and Revisions;
Applicable to the following: All Northern California Power Agency (NCPA) Facilities

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

Approve Resolution 21-XX for the NCPA 2021 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.

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 the WMP) stating that NCPA's WMP appropriately addressed all elements required under CPUC Section 8387 (b) (2). The independent evaluation and report were completed April 30th 2020. NCPA Commission approved the updated WMP with the qualified independent evaluator recommendations on May 28, 2020 per Resolution 20-43. In addition, NCPA submitted the WMP to the Wildfire Safety Advisory Board (WSAB) on 6/1/2020.

NCPA is now seeking Commission approval of the NCPA 2021 Wildfire Mitigation Plan, to include the recommendations provided by the qualified independent evaluator, revise the Wildfire Mitigation Plan from Version 1.1 to 1.2 to reflect recommendations, and post the Wildfire Mitigation Plan 1.2 to NCPA Website.

FISCAL IMPACT:

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

ENVIRONMENTAL ANALYSIS:

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

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

COMMITTEE REVIEW:

Pending Committee review.

AFTER FACILITIES APPROVAL: On May 5, 2021, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution 21-XX
- NCPA 2021 Wildfire Mitigation Plan

RESOLUTION 21-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE NCPA 2021 WILDFIRE MITIGATION PLAN ASSESSMENT REPORT AND REVISIONS

(reference Staff Report #XXX:21)

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 2021 Wildfire Mitigation Plan with updated revisions based on the qualified independent evaluators recommendations.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2021 by the following vote on roll call:

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

DAVID HAGELE
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY

NORTHERN CALIFORNIA POWER AGENCY WILDFIRE MITIGATION PLAN

VERSION 1.2

VERSION HISTORY

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

Version 1.1 – NCPA Commission approved with qualified independent evaluator recommendations (evaluation report for public review included in appendix) issue May 28, 2020 per Resolution 20-43

Version 1.2 – NCPA Commission approved with qualified independent evaluator recommendations (evaluation report for public review included in appendix) issue May 29, 2021 per Resolution 21-XX

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EXECUTIVE SUMMARY

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

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

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

1. OVERVIEW

1.A. POLICY STATEMENT

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

1.B. PURPOSE OF THE WILDFIRE MITIGATION PLAN

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

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

The plan describes the range of activities that NCPA is taking to mitigate the threat of power line-ignited wildfires, including its current programs, policies, and procedures as well as future plans to decrease risk and improve resiliency. This plan is subject to direct supervision by the NCPA Commission and is implemented by the NCPA General Manager. This plan complies with the requirements of Public Utilities Code section 8387 (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.

Board (WSAB) developed template for review of POU WMPs

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

1.C. ORGANIZATION OF THE WILDFIRE MITIGATION PLAN

This WMP includes the following elements:

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

2. GOALS

2.A. MINIMIZING SOURCES OF IGNITION

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

2.B. RESILIENCY OF THE ELECTRIC GRID

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

2.C. IDENTIFYING UNNECESSARY OR INEFFECTIVE ACTIONS

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

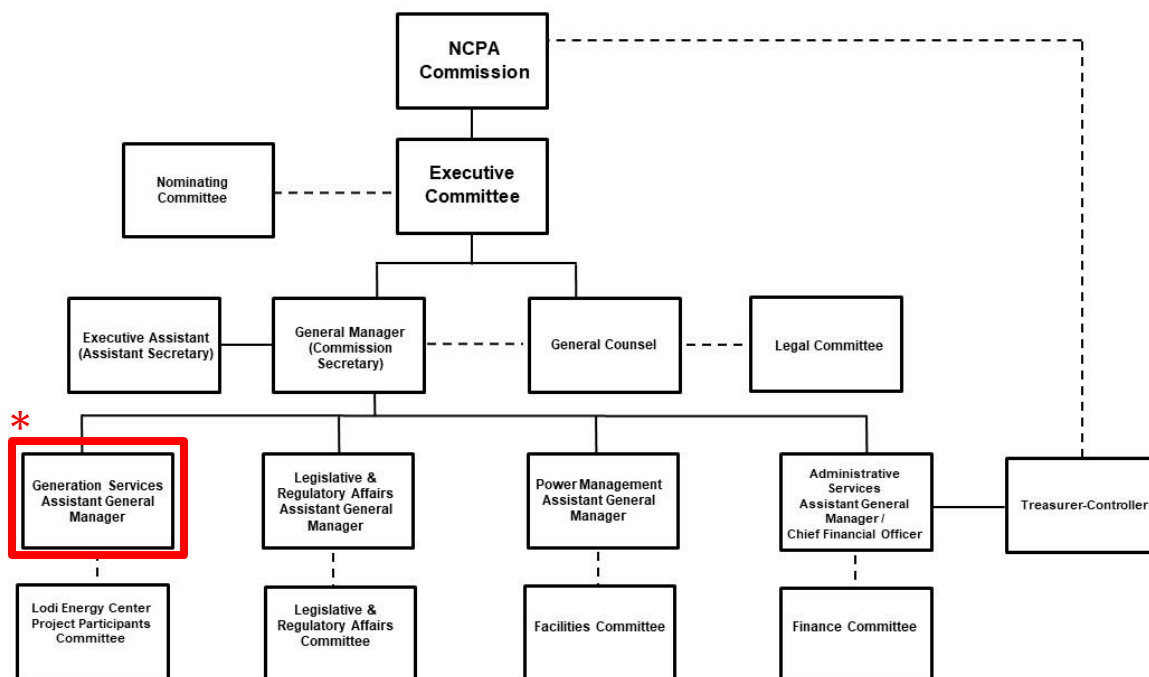
NCPA's current and planned wildfire risk mitigation activities will be formally reviewed annually according to this WMP regarding the effectiveness of ongoing practices, investigation of new technologies, and changing climate and ground conditions to continually prioritize the highest value activities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

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.

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

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

Additionally, all NCPA employees are responsible for:

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

3.C. WILDFIRE RESPONSE, COMMUNICATION, AND RECOVERY

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

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

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

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

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

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

3.D. COORDINATION WITH WATER UTILITIES/DEPARTMENT

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

3.E. COORDINATION WITH COMMUNICATION INFRASTRUCTURE PROVIDERS

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

3.F. MUTUAL AID AGREEMENTS

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

4. WILDFIRE RISKS AND DRIVERS

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

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

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

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

4.A. RISKS ASSOCIATED WITH TOPOGRAPHIC AND CLIMATOLOGICAL FACTORS

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

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

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

Several of the risk drivers are interrelated:

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

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

Wildfires have occurred in the general region of NCPA's hydro and geothermal facilities, however NCPA facilities have not been associated with any ignition source. The 2017 Tubbs and 2019 Kincadee Fires affected areas nearby, and immediately adjacent to the geothermal facilities. The 2015 Valley Fire destroyed much of the 21kV Service Line for the Effluent Pump System.

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 were made including insulation, hardware, and conductor damping improvements. These major improvements were completed in 2020. NCPA's aggressive approach to reduce transmission tie-line risk included 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. Avian deterrents and anti-nesting cones were also added in 2020.
- **Mackay's Point 17 kV Overhead Line:** This three-span distribution line is in a Tier 3 fire threat zone. This short line has been maintained and is monitored consistently. Because of its location and danger tree threat, NCPA has entered into a construction contract for fire hardening of this short span of line. Construction is tentatively scheduled to be completed in 2021 pending contractor availability.
- **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. 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. NCPA has considered the implementation of avian protection on these lines, however due to the lack of nesting activities, no avian protection was installed.

(2) Emergency Operating Procedures: NCPA uses emergency operating procedures to safely react to wildfire fire events and help guide employees.

- (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.

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

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

¹ Adopted by CPUC Decision 17-12-024.

- Stressed vegetation is more susceptible to insect infestations, damaging trees, or accelerating mortality
- Thunderstorms present lightning strike risks along with strong wind events

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

5.C. POTENTIAL CLIMATE CHANGE RISK MANAGEMENT IMPACTS

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

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

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

5.D. TREE MORTALITY

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

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

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

5.E. VEGETATION MANAGEMENT

NCPA has developed and implemented a Transmission Vegetation Management Program (TVMP) to establish the vegetation maintenance requirements for each facility to achieve

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

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

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

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

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

The objectives of the TVMP are to:

- Adhere to the Power Line Fire Prevention Field Guide published by CAL FIRE in November 2008 and used by California utilities for the care and maintenance of trees, shrubs, and other woody plants when pruning vegetation near electric facilities.
- Maintain defined clearance distances between the generation interconnection facilities and all trees, brush, and other vegetation that could grow too close to electrical facilities including conductors, poles, and guy wires. Since the clearances specified in the Power Line Fire Prevention Field Guide are more stringent than the MVCD described in FAC-003-4, NCPA adheres to the CAL FIRE field guide.
- Where appropriate and necessary, develop site-specific, environmentally sensitive, cost-effective and socially responsible solutions to vegetation control near the NCPA generation interconnection facilities. Document the process for the annual vegetation work plan for applicable power lines.
- Maintain public and worker safety, maintain compliance with NERC standards and other regulatory and legal requirements, provide reliable electric service that allows for

operational flexibility, and promote environmental stewardship and habitat enhancement.

- Potential improvements to its programs include increasing the frequency and scope of aerial lidar surveys on its transmission and distribution facilities, and a continued emphasis on identification and timely removal of danger and hazard trees that threaten overhead transmission and distribution lines. NCPA's asset management system allows potential improvement to be evaluated as observations and comments are made when work orders for maintenance items are executed.

5.F. INSPECTIONS

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

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

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

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

The TVMP also establishes requirements for the type and schedule of right-of-way vegetation inspections.

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.I. DE-ENERGIZATION

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

currently able to de-energize both circuits of the CB 230 kV line via SCADA and other procedures within 20 minutes.

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

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

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

5.J.1. IMPACTS TO PUBLIC SAFETY

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

5.J.2. CUSTOMER NOTIFICATION PROTOCOLS

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

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7. RESTORATION OF SERVICE

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

7.A. METRICS AND ASSUMPTIONS FOR MEASURING PLAN PERFORMANCE

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

METRIC 1: FIRE IGNITIONS

NCPA will track fire ignitions in their territory as follows:

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

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

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

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 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. As of yet these methods have not been used. Additional objectives are stated in Section 2C above.

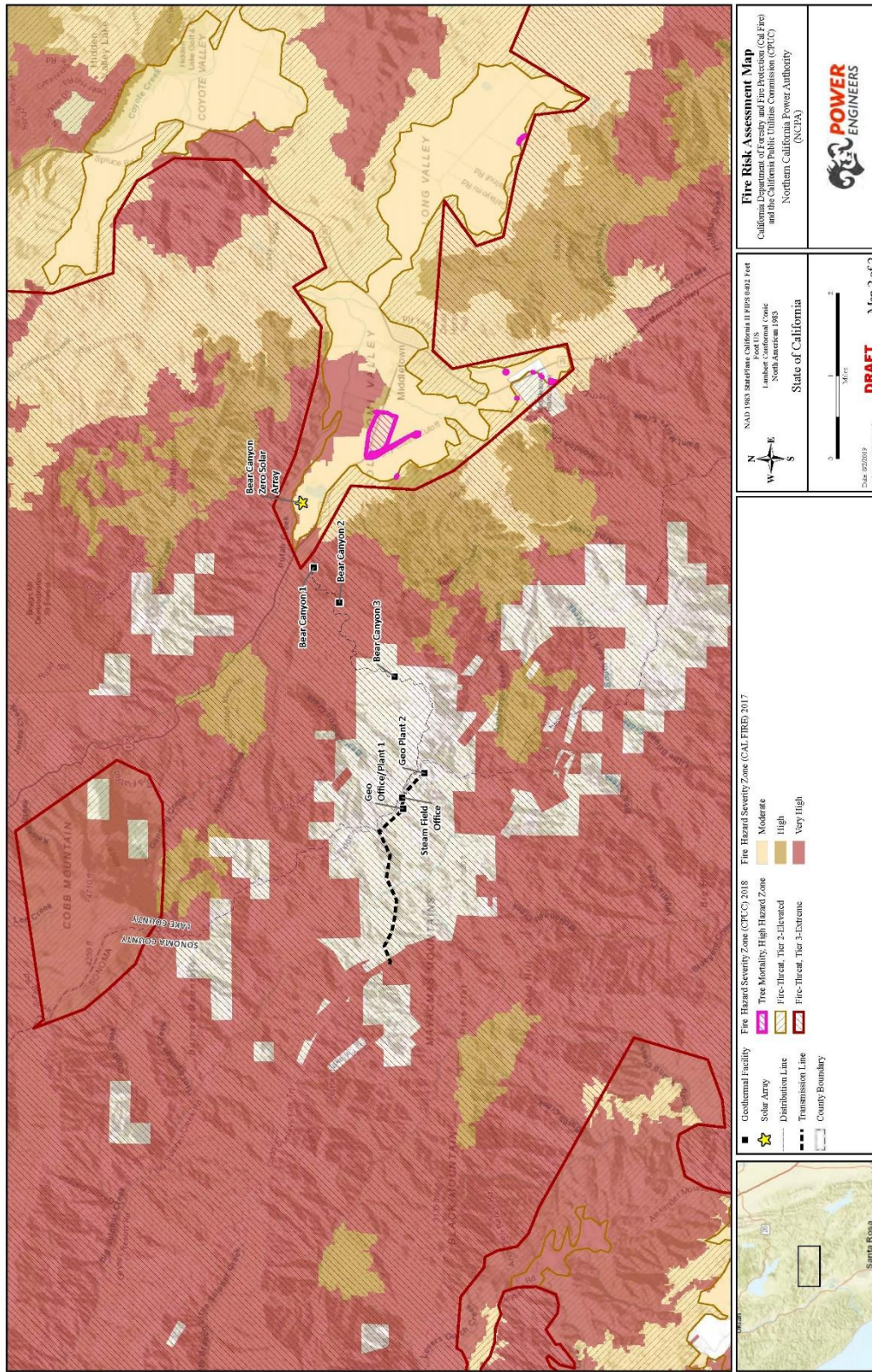
8. INDEPENDENT AUDITOR

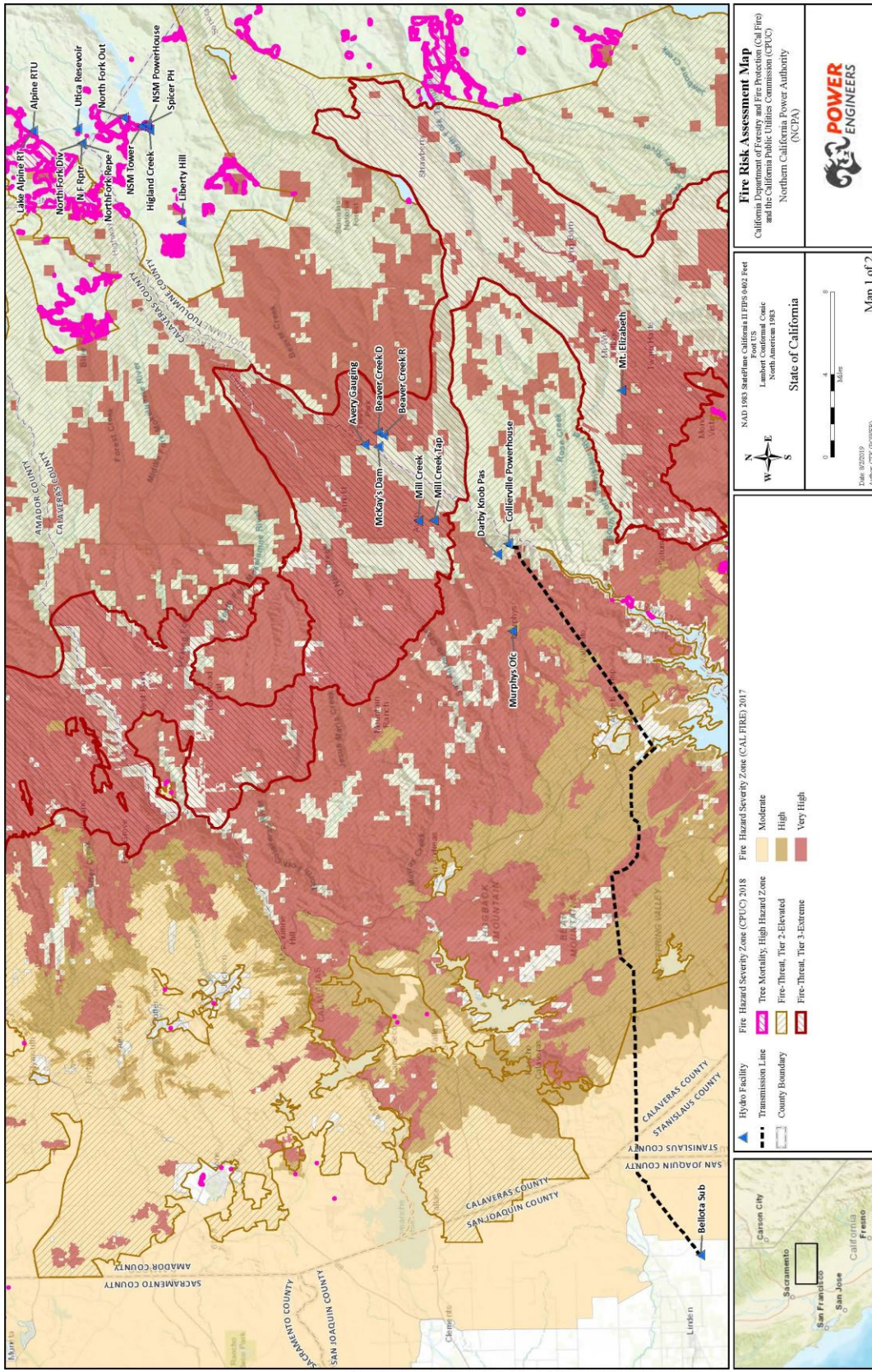
In 2019, NCPA anticipated that the CPUC would provide a list of qualified independent evaluators. In lieu of such a list, NCPA drew from a list it compiled following a Request for Qualifications issued in June 2019. The selection was based on competitive bid.

In 2020, NCPA competitively bid and contracted with a qualified independent evaluator, Dudek, with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of this WMP. The independent evaluator issued a report (that is attached as an appendix to this report) and posted to the NCPA website. The independent evaluation and report were completed April 30th 2020. NCPA Commission approved with qualified independent evaluator recommendations issued May 28, 2020 per Resolution 20-43.

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." NCPA Commission approved with qualified independent evaluator recommendations issue May XX, 2021 per Resolution 21-XX.

APPENDIX 1 – FIRE RISK ASSESSMENT MAPS





APPENDIX 2 – INDEPENDENT EVALUATOR REPORT

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

April 30, 2020

12108.02

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

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

Dear Mr. Lawson:

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

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

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

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

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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,



Scott Eckardt, RPF
Project Manager

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

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April 2020



Attachment A

Required WMP Elements under PUC Section 8387(b)

Required WMP Elements under PUC Section 8387(b)

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

May 3, 2021

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

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

I. INTRODUCTION

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

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

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

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

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

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May 2021

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

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

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

II. WILDFIRE MITIGATION PLAN REQUIREMENTS

A. Senate Bill 901

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

B. AB 1054 & AB 111

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

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

C. Northern California Power Agency WMP Requirements

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

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

III. DESCRIPTION OF NORTHERN CALIFORNIA POWER AGENCY

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

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

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

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

IV. INDEPENDENT EVALUATION

A. Independent Evaluator Requirement

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

B. Dudek's Qualifications

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

C. Evaluation Methodology

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

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

D. Metrics

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

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

A. Minimizing Wildfire Risks

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

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

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May 2021

B. Evaluation of WMP Elements

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

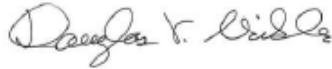
CONCLUSION

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

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

Prepared by,



Douglas V. Nickles, RPF
Fire Protection Specialist

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



Attachment A

WMP Required Element Compliance Matrix under PUC Section 8387

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 Strategies and Programs. Sec. 5.C. Potential Climate Change Effects. Sec. 5.D. Potential Climate Change Risk Management Impacts.	Add description of programs. Reference is made to the line maintenance program. No definitive description is provided for the proposed programs.	NCPA - Complete. Revised NCPA's (1) facility maintenance program, (2) emergency operating procedures, (3) vegetation management programs, and (4) asset documentation programs.	Meets requirements as modified.
(D): A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.	Sec. 7.A. Metrics and Assumptions for Measuring Plan Performance.	Meets requirements.	NA	Meets requirements.

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

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

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

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



Attachment B

Wildfire Safety Advisory Board 2020 WMP Guidance Recommendations

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

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

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

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

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

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

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

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

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

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

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

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

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REVISION HISTORY

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

Version 1.1 – NCPA Commission approved recommendations provided by the qualified independent evaluator on May 28, 2020 per Resolution 20-43.

Dudek's Report	Revisions to WMP
8387(b)(A): Provide clarification and detail regarding plan implementation responsibility.	Added (*) asterisks note on diagram in Section 3A.. to identify project responsibility. Also addressed in section 3B. within parenthesis.
8387(b)(E): Identify previous plan metrics, as available.	Added statement to in 7D to reference section 1B 4th paragraph identifying this WMP is in response to SB901 and superseding previous versions.
8387(b)(L): Provide details regarding risk drivers, risk impacts, and how NCPA will identify, monitor, analyze, plan/evaluate and respond to risks.	Added statement of methodology in Section 4B. Per recommendation, added balloon risk potential to bullets in Section 4B.
8387(b)(N)(i): Clarify monitoring efforts associated with WMP implementation and clearly identify performance monitoring details in the plan. Clarify plan auditing and review procedures.	Added recommended statement to Section 5A to ensure monitoring and auditing responsibility back to the facility maintenance programs
8387(b)(N)(ii): Provide clarification and detail regarding plan implementation, review, and plan deficiency correction responsibility.	Added statement in Section 7D to connect the annual review of wildfire mitigation activities, section 7D includes "these improvements will be documented in the annual report to the NCPA Commission."
8387(b)(N)(iii): Clarify line/equipment inspection responsibility, timeframes, work plan approach, and target inspection goals, and performance metrics.	Added additional reference in Section 7E back to 2C identifying effectiveness objectives additionally added statement in Section 5A to clarify the details are in the specified programs (now identified in the WMP).

Version 1.2 – NCPA Commission approved recommendations provided by the qualified independent evaluator on May 29, 2021 per Resolution 21-XX.

[Dudek summary Place Holder]



Commission Staff Report

COMMISSION MEETING DATE: May 27, 2021

SUBJECT: Bell Burnett & Edwards – First Amendment to Five Year Multi-Task Consulting Services Agreement for Financial Analysis, Planning, Advisory and Forecasting, Generation and Transmission Project Planning, Project and Program Development, Energy Efficiency and Demand Reduction Program Design, Changing Name to Bell Burnett & Associates and Accepting Assignment; Applicable to Northern California Power Agency (NCPA), NCPA Members, Southern California Public Power Authority (SCPPA), and SCPPA Members

AGENDA CATEGORY: Consent

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

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

Approve Resolution 21-51 authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task Consulting Services Agreement with Bell Burnett & Edwards for financial analysis, planning, advisory and forecasting, generation and transmission project planning, project and program development, energy efficiency and demand reduction program design, with any non-substantial changes recommended and approved by the NCPA General Counsel, changing the vendor name to Bell Burnett & Associates (BB&A), for continued use at all facilities owned and/or operated by NCPA and NCPA Members.

BACKGROUND:

Bell Burnett & Associates is a corporation formed to assist with a broad range of consulting related services including but not limited to capital planning, rate forecasting, strategic analysis, resource adequacy planning, project development, implementation, reporting and management, and energy efficiency evaluation and program design. They offer independent development, review and assessment of strategic plans and initiatives to clients in the private and public sectors. Their approach centers on optimization, efficiency, affordability and sustainability with services designed to enhance governance, communication, project delivery, resources, and systems integration.

In June 2020, the Commission approved a five-year Multi-Task Consulting Services Agreement with Bell Burnett & Edwards (BB&E) effective July 2, 2020, for an amount not to exceed \$1,000,000. In January 2021, BB&E changed its name to Bell Burnett & Associates (BB&A) prompting the need for a First Amendment to the five-year Multi-Task Consulting Services Agreement.

FISCAL IMPACT:

Upon execution, the term and total amount of the agreement will remain unchanged. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

SELECTION PROCESS:

The First Amendment to this enabling agreement does not commit NCPA to any expenditure of funds. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA currently has in place (other enabling agreements) for similar services and seeks bids from as many qualified providers as possible. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

Pending the Facilities Committee review and approval.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments:

- Resolution 21-51
- First Amendment to Multi-Task Consulting Services Agreement with Bell Burnett & Associates f/k/a Bell Burnett & Edwards
- Multi-Task Consulting Services Agreement with Bell Burnett & Edwards

RESOLUTION 21-51

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A FIRST AMENDMENT TO THE MULTI-TASK CONSULTING SERVICES AGREEMENT WITH BELL BURNETT & EDWARDS CHANGING NAME TO BELL BURNETT & ASSOCIATES AND ACCEPTING ASSIGNMENT

(reference Staff Report #163:21)

WHEREAS, Northern California Power Agency (NCPA) and Bell Burnett & Edwards entered into a five-year Multi-Task Consulting Services Agreement effective July 2, 2020, for Bell Burnett & Edwards to provide consulting services related to capital planning, rate forecasting, strategic analysis, resource adequacy planning, project development, implementation, reporting and management, and energy efficiency evaluation and program design, for use at any facilities owned and/or operated by NCPA, NCPA Members, by the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, in January 2021, Bell Burnett & Edwards changed its name to Bell Burnett & Associates prompting the need for a First Amendment to the five-year Multi-Task Consulting Services Agreement; and

WHEREAS, NCPA now desires to enter into a First Amendment to effectuate the name change and assign the Agreement to Bell Burnett & Associates; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into said Agreement, for continued use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2021 by the following vote on roll call:

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

DAVID HAGELE
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



**FIRST AMENDMENT TO MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND BELL BURNETT & EDWARDS AND
ACCEPTING ASSIGNMENT TO BELL BURNETT & ASSOCIATES**

This First Amendment ("Amendment") to Multi-Task Consulting Services Agreement is entered into by and between the Northern California Power Agency ("Agency") and Bell Burnett & Edwards ("Consultant") (collectively referred to as "the Parties") as of _____, 2021.

WHEREAS, the Parties entered into a Multi-Task Consulting Services Agreement dated effective July 2, 2020, (the "Agreement") for Bell Burnett & Edwards to provide financial analysis, planning, advisory and forecasting; generation and transmission project planning (exclusive of engineering, design or other professional services typically covered by professional liability insurance); project program development and delivery, and energy efficiency and demand reduction program design, for use at any facilities owned and/or operated by Agency, its Members, Southern California Public Power Authority (SCPPA), or SCPPA Members; and

WHEREAS, effective January 11, 2021, Bell Burnett & Edwards changed its name to Bell Burnett & Associates, and requested that the agreement between Bell Burnett & Edwards be assigned to Bell Burnett & Associates; and

WHEREAS, the Parties now desire to amend Section 10.8 of the Agreement entitled "Notices" to reflect change of the Consultant's name; and

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

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

NOW, THEREFORE, the Parties agree as follows:

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

"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 Bell Burnett & Associates, a corporation with an office located at 26 Broderick Street, San Francisco, CA. 94117-3115 ("Consultant") (together sometimes referred to as the "Parties") as of July 2, 2020 ("Effective Date") in Roseville, California."

2. **Section 10.8, Notices** is replaced in its entirety as follows:

Any written notice to Consultant shall be sent to:

Bell Burnett & Associates
Alex Burnett
26 Broderick Street
San Francisco, CA 94117-3115

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

3. Exhibit B – Compensation Schedule and Hourly Fees is amended and restated to read in full as set forth in the attached Exhibit B.

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

Date:_____

Date:_____

NORTHERN CALIFORNIA POWER AGENCY

BELL BURNETT & ASSOCIATES,
Formerly known as BELL BURNETT &
EDWARDS

RANDY S. HOWARD, General Manager

MICHAEL BELL, Principal

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

Fees may be a fixed amount, or an amount charged on a time and materials basis depending upon work performed under this Agreement and subject to mutual agreement in writing by all of the Parties prior to any services being rendered. As of 2021, BB&E's hourly rate for principals is \$500. If non-principals work on any assignment for any reason, the hourly rate for these non-principals shall be reduced to \$300. Administrative staff, if any, will not be billed under any time and materials contract. All hourly rates are subject to a 3% annual increase.

Pricing for services to be performed for NCPA or Agency Members 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.



MULTI-TASK CONSULTING SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND BELL BURNETT & EDWARDS

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 Bell Burnett & Edwards, a corporation with an office located at 26 Broderick Street, San Francisco, CA. 94117-3115 ("Consultant") (together sometimes referred to as the "Parties") as of July 2, 2020 ("Effective Date") in Roseville, California.

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

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

Services on the terms set forth in the Purchase Order, this Agreement and its Exhibits.

Section 2. COMPENSATION. Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED** one million dollars (\$1,000,000) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

2.1 Invoices. Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- The beginning and ending dates of the billing period;
- Services performed;
- The Purchase Order number authorizing the Services;
- At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder; and
- At Agency's option, when the Consultant's Scope of Work identifies tasks, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction.

Invoices shall be sent to:

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

2.2 Monthly Payment. Agency shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.

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

2.4 Authorization to Perform Services. The Consultant is not authorized to perform any Services or incur any costs whatsoever under the terms of this Agreement until receipt of written authorization from the Contract Administrator.

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

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

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

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

4.2 Commercial General and Automobile Liability Insurance.

- 4.2.1 Commercial General Insurance.** Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.

- 4.2.2 Automobile Liability.** Consultant shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Consultant, on or off Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.

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

4.3 Professional Liability Insurance. Not applicable.

4.4 All Policies Requirements.

4.4.1 Verification of coverage. Prior to beginning any work under this Agreement, Consultant shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

4.4.2 Notice of Reduction in or Cancellation of Coverage. Consultant shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.

4.4.3 Higher Limits. If Consultant maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Consultant.

4.4.4 Additional Certificates and Endorsements. If Consultant provides services to Agency members pursuant to this Agreement, Consultant shall provide certificates of insurance and policy endorsements, as referenced in Section 4.4.1, naming the specific Agency member for which the Services are to be performed.

4.4.5 Waiver of Subrogation. Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.

4.5 Consultant's Obligation. Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

5.1 Effect of Insurance. Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification

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

- 5.2 Scope.** Consultant shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency, and its officials, commissioners, officers, employees, agents and volunteers from and against all losses, liabilities, claims, demands, suits, actions, damages, expenses, penalties, fines, costs (including without limitation costs and fees of litigation), judgments and causes of action of every nature arising out of or in connection with any acts or omissions by Consultant, its officers, officials, agents, and employees, except as caused by the sole or gross negligence of Agency. Notwithstanding, should this Agreement be construed as a construction agreement under Civil Code section 2783, then the exception referenced above shall also be for the active negligence of Agency.

Section 6. STATUS OF CONSULTANT.

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

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

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

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

6.2 Consultant Not Agent. Except as Agency may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.

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

6.4 Certification as to California Energy Commission. Not Applicable.

Section 7. LEGAL REQUIREMENTS.

7.1 Governing Law. The laws of the State of California shall govern this Agreement.

7.2 Compliance with Applicable Laws. Consultant and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.

7.3 Licenses and Permits. Consultant represents and warrants to Agency that Consultant and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.

Section 8. TERMINATION AND MODIFICATION.

Section 8. TERMINATION AND MODIFICATION.

- 8.1 Termination.** Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Consultant. Provided there are no outstanding Purchase Orders issued to Consultant or Work, Consultant may cancel this Agreement with thirty (30) days prior written notice to Agency.

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

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

- 8.4 Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:

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

Section 9. KEEPING AND STATUS OF RECORDS.

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

- 9.2 Consultant's Books and Records.** Consultant shall maintain any and all records or other documents evidencing or relating to charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.
- 9.3 Inspection and Audit of Records.** Any records or documents that this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Agreement.
- 9.4 Confidential Information and Disclosure.**
- 9.4.1 Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as confidential Information in accordance with this section.
- 9.4.2 Non-Disclosure of Confidential Information.** During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confident; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- 9.4.3 Permitted Disclosure.** Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:

9.4.3.1 Disclosure to employees, agents, consultants, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.

9.4.3.2 Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and

9.4.3.3 Disclosure by Agency in response to a request pursuant to the California Public Records Act.

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

Section 10. MISCELLANEOUS PROVISIONS.

10.1 **Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

10.2 **Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.

10.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

10.4 **No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

10.5 **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

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

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

- 10.7 Contract Administrator.** This Agreement shall be administered by 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.

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

Bell Burnett & Edwards
Alex Burnett
26 Broderick Street
San Francisco, CA 94117-3115

Any written notice to Agency shall be sent to:

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

With a copy to:

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

- 10.9 Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- 10.10 Integration; Incorporation.** This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.

10.11 Alternative Dispute Resolution. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:

10.11.1 Each party shall designate a senior management or executive level representative to negotiate any dispute;

10.11.2 The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.

10.11.3 If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.

10.11.4 The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.

10.11.5 The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.

10.11.6 The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*

10.12 Controlling Provisions. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Consultant's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Consultant's Proposal, the Purchase Order shall control.

10.13 Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

10.14 Construction of Agreement. Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.

10.15 No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties.

However, should Consultant provide Services to an Agency member pursuant to section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Services relating to such Member.

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

NORTHERN CALIFORNIA POWER AGENCY

BELL BURNETT & EDWARDS

Date 6-30-2020

Date 7-2-2020


RANDY S. HOWARD, General Manager


MICHAEL BELL, Principal

Attest:


Assistant Secretary of the Commission

Approved as to Form:


Jane E. Luckhardt, General Counsel

EXHIBIT A

SCOPE OF SERVICES

1. Financial Analysis, Planning, Advisory and Forecasting:
 - a. Capital Planning
 - b. Debt management
 - c. Financial policies, procedures and contract administration
 - d. Budget development and analysis, including funding models and revenue, cost, rate and financial metric analysis
 - e. Financial reporting and controls
 - f. Rate and pricing development, implementation, and stakeholder communication
 - g. Rate forecasts, comparisons, peer analysis and alternatives
 - h. Strategic analysis, including immediate and long-term financial implications, strategies, and stakeholder communication re COVID 19 and other utility adopted policies and practices
2. Generation and Transmission Project Planning¹:
 - a. Project Reliability
 - b. Resource Adequacy Planning
 - c. Supply and procurement program design
 - d. Operational impact assessment
 - e. Risk assessment and management
 - f. Customer and stakeholder outreach
 - g. Operations studies
 - h. Feasibility studies
3. Project and Program Development and Delivery
 - a. Project and program budget and funding analysis
 - b. Cost, lifecycle and alternatives analysis
 - c. Project development and strategic analysis
 - b. Project procurement, documentation and implementation
 - c. Contract review, negotiation and support²
 - d. Project implementation, reporting and management
 - e. Program implementation, reporting and management
 - f. Management audits and reviews
 - g. Process improvement evaluations and studies
4. Energy Efficiency and Demand Reduction Program Design
 - a. Demand side reduction services and program design
 - b. Energy efficiency evaluation and program design
 - c. Program rate designs and incentives to promote behavioral change

¹ None of these services include engineering, design or other professional services typically covered by professional liability insurance

² These services do not include legal services.

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

Fees may be a fixed amount, or an amount charged on a time and materials basis depending upon work performed under this Agreement and subject to mutual agreement in writing by all of the Parties prior to any services being rendered. As of 2020, BB&E's hourly rate for principals is \$500. If non-principals work on any assignment for any reason, the hourly rate for these non-principals shall be reduced to \$300. Administrative staff, if any, will not be billed under any time and materials contract. All hourly rates are subject to a 3% annual increase.

Pricing for services to be performed for NCPA or Agency Members will be quoted at the time services are requested.

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



Commission Staff Report

COMMISSION MEETING DATE: May 27, 2021

SUBJECT: Authorize NCPA General Manager to Execute Confirmation Number 0209 for Quantum Spatial, Inc. Services to the City of Redding/Redding Electric Utility and Issue a Corresponding Purchase Order Under the Support Services Program

AGENDA CATEGORY: Consent

FROM:	Monty Hanks Chief Financial Officer/Assistant General Manager	METHOD OF SELECTION: <i>Other</i>
Division:	Administrative Services	<i>Redding Acknowledged Satisfaction of City's Purchasing Policies</i>
Department:	Accounting & Finance	

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

Subject to approval by the Redding City Council and under the terms of the NCPA Support Services Program Agreement, approve Resolution 21-50 authorizing the NCPA General Manager or his designee to execute Confirmation Number 0209, with any non-substantive changes as approved by the NCPA General Counsel, and issue a corresponding Purchase Order to Quantum Spatial, Inc. for remote sensing data services for Redding Electric Utility's transmission and distribution system in the Tier 1 and Tier 2 regions to assist with vegetation management and planning.

BACKGROUND:

The City of Redding became a signatory to the Northern California Power Agency (NCPA) Support Services Program Agreement (SSPA) on April 19, 2016, which agreement authorizes among other things, the purchase or acquisition of goods and services by NCPA Members through use of NCPA's agreements with its vendors.

In March 2021 the City of Redding/Redding Electric Utility (REU) submitted a Member Task Request under the SSPA for Quantum Spatial, Inc. to provide LiDAR and imagery data services including remote sensing data for REU's transmission and distribution system in the Tier 1 and Tier 2 regions to assist with vegetation management and planning. The data provided will support REU with the identification, planning, inspection, and removal of vegetation threats within the right of way. Pursuant to the Quantum Spatial, Inc. proposal, the cost for the services is \$273,872. REU requested that a ten percent (10%) contingency be added to the services proposal amount, for a total of \$301,259.

If approved, Confirmation Number 0209 states that NCPA agrees to provide the requested services through its contract with Quantum Spatial, Inc. dated effective April 29, 2021, in the amount of not-to-exceed \$301,259. With the addition of NCPA's administrative fees, the total amount expended under the Confirmation will not exceed \$303,129.

The item will be considered by the Redding City Council at its meeting on May 4, 2021, and is subject to that approval.

FISCAL IMPACT:

There is no fiscal impact to NCPA. The services provided by Quantum Spatial, Inc. to REU will be billed to and paid by Redding pursuant to the terms of the Support Services Program Agreement. NCPA's administrative costs will be reimbursed by Redding.

SELECTION PROCESS:

REU will utilize Quantum Spatial, Inc. services through NCPA's Support Services Program and has confirmed through submission of its Task Request that it is responsible for satisfying the City of Redding's Purchasing Policies.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

Pending Facilities Committee review and approval.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments:

- Resolution 21-50
- Proposed Confirmation Number 0209

RESOLUTION 21-50

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY AUTHORIZING THE GENERAL MANAGER TO EXECUTE CONFIRMATION NUMBER 0209 FOR QUANTUM SPATIAL, INC. SERVICES TO THE CITY OF REDDING/REDDING ELECTRIC UTILITY AND ISSUE A CORRESPONDING PURCHASE ORDER UNDER THE SUPPORT SERVICES PROGRAM (reference Staff Report #162:21)

WHEREAS, The City of Redding became a signatory to the Northern California Power Agency (NCPA) Support Services Program Agreement (SSPA) on April 19, 2016, which agreement authorizes among other things, the purchase or acquisition of goods and services by NCPA Members through use of NCPA's agreements with its vendors; and

WHEREAS, in March 2021 the City of Redding/Redding Electric Utility (REU) requested services through the SSPA for Quantum Spatial, Inc. to provide LiDAR and imagery data services including remote sensing data for REU's transmission and distribution system in the Tier 1 and Tier 2 regions to assist with vegetation management and planning. The cost for the services is \$273,872. REU requested that a ten percent (10%) contingency be added to the services proposal amount, for a total of \$301,259; and

WHEREAS, Confirmation Number 0209 states that NCPA agrees to provide the requested services through its contract with Quantum Spatial, Inc. dated effective April 29, 2021, in the amount of not-to-exceed \$301,259. With the addition of NCPA's administrative fees, the total amount expended under the Confirmation will not exceed \$303,129.

WHEREAS, this item will be considered by the Redding City Council at its meeting on May 4, 2021, and is subject to that approval; and

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

NOW, THEREFORE BE IT RESOLVED, subject to approval by the Redding City Council and under the terms of the NCPA Support Services Program Agreement, the Commission of the Northern California Power Agency authorizes the NCPA General Manager or his designee to execute Confirmation Number 0209, with any non-substantive changes as approved by the NCPA General Counsel, and issue a corresponding Purchase Order to Quantum Spatial, Inc. for remote sensing data services for Redding Electric Utility's transmission and distribution system in the Tier 1 and Tier 2 regions to assist with vegetation management and planning.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2021, by the following vote on roll call:

	<u>Vote</u>	<u>Abstained</u>	<u>Absent</u>
Alameda	_____	_____	_____
San Francisco BART	_____	_____	_____
Biggs	_____	_____	_____
Gridley	_____	_____	_____
Healdsburg	_____	_____	_____
Lodi	_____	_____	_____
Lompoc	_____	_____	_____
Palo Alto	_____	_____	_____
Port of Oakland	_____	_____	_____

Redding
Roseville
Santa Clara
Shasta Lake
Truckee Donner
Ukiah
Plumas-Sierra

DAVID HAGELE
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY

CONFIRMATION UNDER THE NCPA SUPPORT SERVICES PROGRAM AGREEMENT

1. This is a Confirmation pursuant to the Support Services Program Agreement and subject to the terms and conditions of that agreement, except as expressly provided in this Confirmation. All capitalized terms have the meaning given to them in the Support Services Program Agreement.

2. The Participating Member for this Confirmation is the CITY OF REDDING in the amount of not-to-exceed \$301,259.00 for the Quantum Spatial, Inc. services described in paragraph 3. This Support Services amount includes \$273,872.00 for the services under Option 2-Tier 1 & 2 Pricing 269.6 12kV, 62 115kV on a fixed fee basis, plus a 10% contingency in the amount of \$27,387.00.

3. CITY OF REDDING requests the following described Support Services in the dollar amount specified above. NCPA agrees to provide the following Support Services to the Participating Member:

Quantum Spatial, Inc. shall provide remote sensing data for Redding Electric Utility's transmission and distribution system in the Tier 1 and Tier 2 regions to assist with vegetation management and planning. The data provided will support Redding Electric Utility with the identification, planning, inspection and removal of vegetation threats within the right of way. The scope of work is detailed in Quantum Spatial Inc.'s proposal marked for reference with date March 9, 2021, copy attached.

4. The Participating Member executing this Confirmation agrees to pay for the Support Services in the not to exceed amount specified in paragraph 2, above; plus, the Administrative Cost to develop the Confirmation and first month of administration in the amount of \$685.00, plus \$165.00 per month for each additional month administrative costs are actually incurred, for a total not to exceed \$1,870.00, billed at actual cost in accordance with the provisions of the Support Services Program Agreement. **The total amount expended under this Confirmation will not exceed \$303,129.00.**

5. A Security Account deposit is not required for this Confirmation.

SIGNATURES ON FOLLOWING PAGE

Date: _____

Date: _____

Participating Member:

CITY OF REDDING

NORTHERN CALIFORNIA POWER AGENCY

By its Designated Representatives:

Daniel Beans, Utility Director

Randy S. Howard, General Manager

And

Barry E. DeWalt, City Attorney

Cary Padgett, Assistant Secretary to Commission

Approved as to form:

Jane E. Luckhardt, NCPA General Counsel

An aerial photograph of a forested area. A helicopter is flying over a clearing, and a power line tower is visible in the lower right. The image is used as a background for the title page.

Technical Proposal to Redding Electric Utility for

Transmission & Distribution Vegetation Management & Planning

Prepared by NV5 Geospatial for
Redding Electric Utility

NV5 GEOSPATIAL
by QUANTUM SPATIAL

REU
Redding Electric Utility

Dated March 9, 2021 for Reference.

Introduction/Background

The primary purpose of this project is to provide remote sensing data for Redding Electric Utility transmission and distribution system in the Tier 2 region to assist with vegetation management and planning. These data will support REU with the identification, planning, inspection, and removal of vegetation threats within the right of way (ROW). To support these goals, NV5 Geospatial (NV5) will utilize proprietary in-house methodologies and software. NV5's analytics will enable REU to perform reactive vegetation management, planned vegetation management, tree felling, and program growth initiatives.

Area of Interest

LIDAR data will be collected utilizing the circuit files provided by REU. An option of Tier 2 only and combined Tier 1 and 2 will be provided. Tier 2 includes 128.6 line miles of 12 kV distribution. Tier 1 includes an additional 141 miles of 12kV. There are approximately 62.1 line miles of 115kV transmission in both Tier 1 & 2.

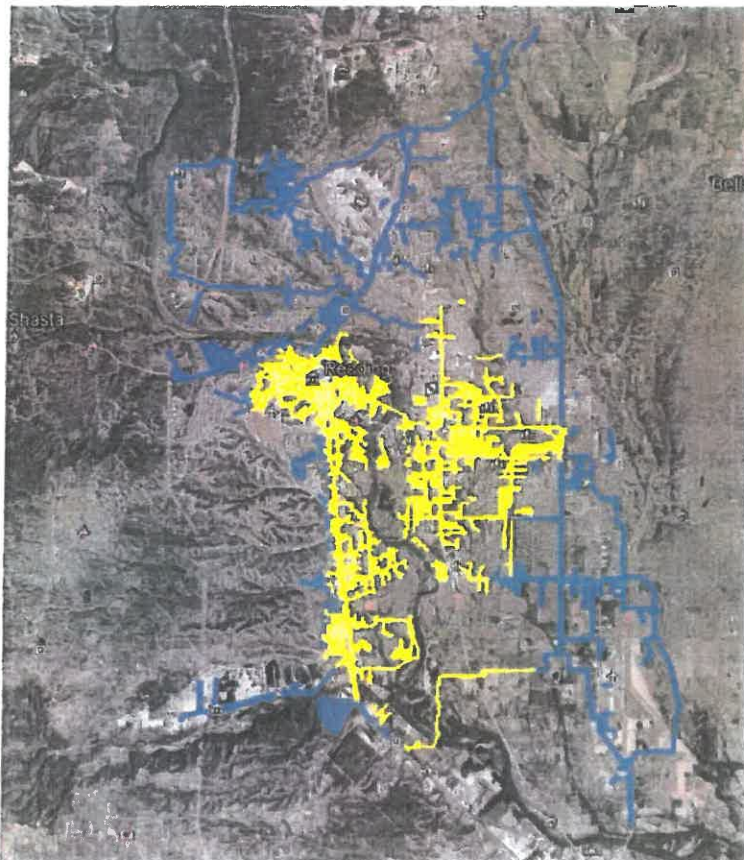


Figure 1 to the left:

Blue = Tier 2 circuits,

Yellow = Tier 1 circuits

Summary Schedule

NV5 recommends collecting REU's survey with existing utility projects in the area, with this approach, NV5 can offer a discount by sharing the cost for certain survey related tasks in the July / August 2021 timeframe

Flight Safety

- NV5 pilots have flown >100,000 miles for utility surveys throughout California.
- In 2019, QSI completed 6,703 aircraft hours with 0 incidents within 48 states.
- In 2020, NV5 (QSI) completed 6,729 aircraft hours with 0 incidents within 48 states.
- Safety First Culture – Captains review adherence to Safe Work Plan monthly, addressing: personal safety, procedures, duty day vehicles, drug and alcohol policy, emergencies, and reporting incidents & near-misses.
- Compliance with FAA Stds (FAA Parts 43,61,91) for aeronautical surveys, FDA/ANSI Stds for safe use of lasers – Class 1 (eye and skin safe).
- 16 pilots average 5,329 hours, equal to 8.8 years per pilot. 600 hours per year. Annual 3-4 day offsite training by 3rd party, and midyear Line Oriented Flight Training.

Ground Survey

Ground Survey Points (calibration) and Check points

Ground Control Points (GCPs) are collected on bare earth locations such as paved, gravel or stable dirt roads, and other locations where the ground is visible (and likely to remain visible) from the sky during data acquisition. In order to facilitate comparisons with LIDAR datasets, measurements are not taken on highly reflective surfaces, such as railroad crossing or stop bar markings on roads. NV5 will require Real Time Network (RTN) when cell phone coverage is available and precisions allow, to access real time corrections from the Continuous Operation Reference System (CORS). A Real-Time Kinematic (RTK) survey allows for precise measurements near established monuments via radio broadcast

Targeted Specifications for GCPs

- RMSE_{xy} <1.5cm and RMSE_z <2.0cm
- Techniques: RTN, RTK, PPK, FS

GCP Specifications: Fit to calibrate; Suitable to meet, or exceed, APSRS accuracy standards



for a real-time correction to a roving unit. For areas where base radio does not reach, Post-Processed Kinematic (PPK) is used. Fast Static (FS) is a post-processing technique when baselines are too far for PPK and is commonly used for remote aerial targets for orthophoto rectification and triangulation. At least 25 ground surface points will be taken at terminal ends every 15 circuit miles, access permitting.

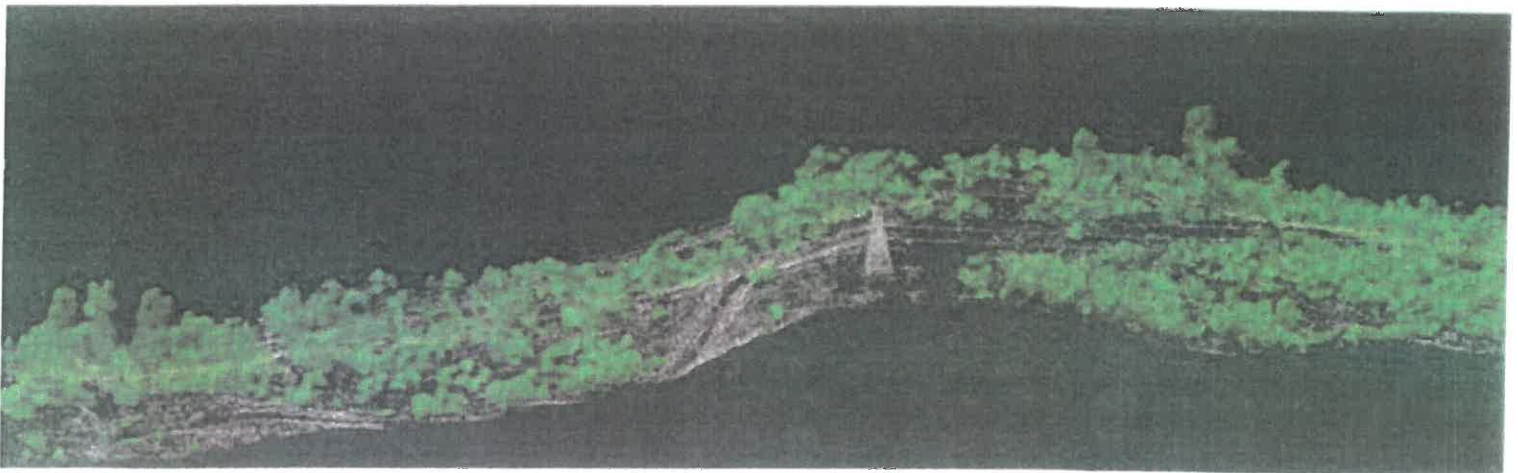
Static Control

NV5 will collect static positional data across the project area to support our airborne missions (base stations / CORS data). We have developed a set of criteria that enable us to improve our overall data quality (ground-based and airborne) and rely on our experienced field team with manager and Professional Land Surveyor (PLS) oversight to make safe, smart decisions to efficiently establish a ground control network. Depending on logistics, including configuration of sites, access, schedule, and weather, NV5 will use one or more appropriate methods for geospatial correction of aircraft data. These include conventional base supported (BS) survey control, Precise Point Positioning (PPP), and Post-Processed Real-Time Extended (PP-RTX) methods. These processes include using CORS and/or project monuments.

Transmission and Distribution Processing

Data Collection T&D

The NV5 approach to electrical utility line surveys is designed for efficient data collection based on the data deliverables. For this proposed solution, a fixed wing platform will be used for the distribution and a fixed wing platform for the transmission work. Data collection requires a minimum of 30 points per square meter (ppsm) to ensure full detection of conductor wires, underbuild and adjacent vegetation for distribution and transmission. Data will be collected for the Tier areas chosen and will include up to approximately 332 line miles of distribution and transmission circuits. The corridor width will be 300 feet total (150 feet on either side of the centerline). Processing of the ROW will be 300 feet or 100 feet each side of centerline. Full circuits will be collected.



A LiDAR sensor operator constantly monitors the data collection settings during acquisition of the data, including pulse rate, power setting, scan rate, gain, field of view, and pulse mode. The LiDAR coverage will be completed with no data gaps or voids, barring nonreflective surfaces (e.g., open water, wet asphalt). All necessary measures will be taken to acquire data under conditions (e.g., minimum cloud decks) and in a manner (i.e., adherence to flight plans) that prevents the possibility of data gaps. All NV5 LiDAR systems are calibrated per manufacturer and QSI specifications, and every mission is tested by NV5 for internal consistency using proprietary methods.

LiDAR Point Cloud

LiDAR data are processed at a corridor level. LiDAR data will be provided to REU in .las format. LiDAR data is calibrated in-house using a variety of software and is continually checked for accuracy and consistency. NV5 will employ a Vegetation Threat scheme for point classification. NV5 employs automated, in-house methods for LiDAR feature delineation. Accurate feature coding of the point cloud is essential for supporting vegetation management projects. NV5's automated point cloud classification allows for the swift assembly of finalized 3D design files of circuit geospatial information for more advanced classification and planimetrics.

Spatial Rectification

For transmission and distribution, NV5 will begin by determining accurate, georeferenced locations of poles holding primary electrical wires. Updates to REU's current estimated pole locations will be delivered as part of this effort.

Conductors

The purpose of creating distribution power line vectors is to analyze the adjacent vegetation for grow-in encroachments. Wire vectors are created from the LiDAR point cloud, stringing a curved vector from the classified wire points or an insulator point on the structure. Wire vectors represent the semi-parabolic curve formed by the sag in power lines between structures. Spans only containing secondary distribution lines will not be analyzed. NV5 analysts determine the presence of primary lines using a variety of methodologies.

Vegetation Encroachment and Detection Parameters

The clearance assessment is designed to detect danger trees that may grow into transmission or distribution wires. The analysis will be run using tree height information gathered from the vegetation canopy and the transmission and distribution catenaries. Each voltage has specific clearance distances, adhering to NERC standards, to be tested. Clearance distances are calculated within proprietary software on each point within the feature-coded point cloud. Detections are associated to danger trees or aggregated to spans, and attributed in the delivery geodatabase. Danger trees can be represented as points, such as the highest point or the closest detection point to a conductor within a cluster or associated with canopy areas which depict the extent of clustered tree crowns based on point cloud geometry.

Transmission PLS-CADD

For 62 miles of transmission lines, Power Line Systems (PLS-CADD) models will be generated for the 115 kV Transmission lines. For a newly modeled line: the data will include a triangulated irregular network (TIN) model and optional meteorology data for maximum operating conditions modeling. In PLS-CADD, each circuit will be created by placing points of inflection at each tower location. Centerlines will be generated from the TIN with a maximum offset of 0.1 feet. PLS-CADD Method 1 structures will be created at each transmission tower and under-build tower location along the alignment. Each structure includes the structure height, the clamp/insulator, the locations on the structure where the clamps and insulators are attached, and whether the attachment points are dead- ends defining the beginning and ends of tension sections. Conductors will be modeled to as-flown and optional maximum operating/ maximum temperature conditions. Once this model is complete, QSI can perform the vegetation clearance analysis for each circuit (see appendix A for parameters). The PLS-CADD models are generated for vegetation management purposes and are not engineering ready.

Vegetation Segmentation

Accurate feature coding of the point cloud is essential for an accurate clearance detection analysis. Focusing on vegetation, NV5 will employ in-house methods for LIDAR extraction of vegetation features. Through a vegetation segmentation process, polygons will be created for vegetation at six feet and above representing tree crowns in the transmission corridor. Each tree is attributed and assigned a unique tree ID, and delivered as vegetation tree-top points for all trees, and vegetation polygons and tree tops points for detection trees.

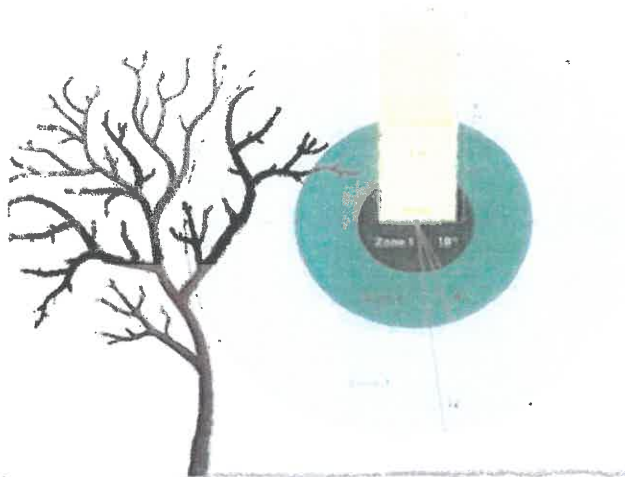
Encroachments are attributed to a report with the most severe of each detected point cloud cluster. NV5 will report encroachments using a system identifying varying levels of severity for danger trees. The vegetation encroachments for distribution will be set up in a zone classification. This can be reviewed prior to project commencement during the kick off meeting.

Point Classification Table

1	Default	17	Lamp post
2	Ground	18	Boulder
3	Vegetation - Low	19	Structure - Other
4	Vegetation - Medium	20	Fence
5	Vegetation - High	21	Wall
6	Building	22	Substation
7	Low point	23	Wire - Guy
8	Model Key Point	24	Wire - Crossing
9	Water	25	Wire - Other
10	Pavement (Non-Road)	26	Tower - Crossing
11	Road - Paved	27	Tower - Other
12	Road - Unpaved	28	Main - Wire
13	Railroad	29	Main - Tower
14	Vineyard	30	Main - Shield
15	Orchard	31	Main - Underbuild
16	Bridge		

Figure 2: Point Classification Table

Distribution Tree Clearance Detection Parameters



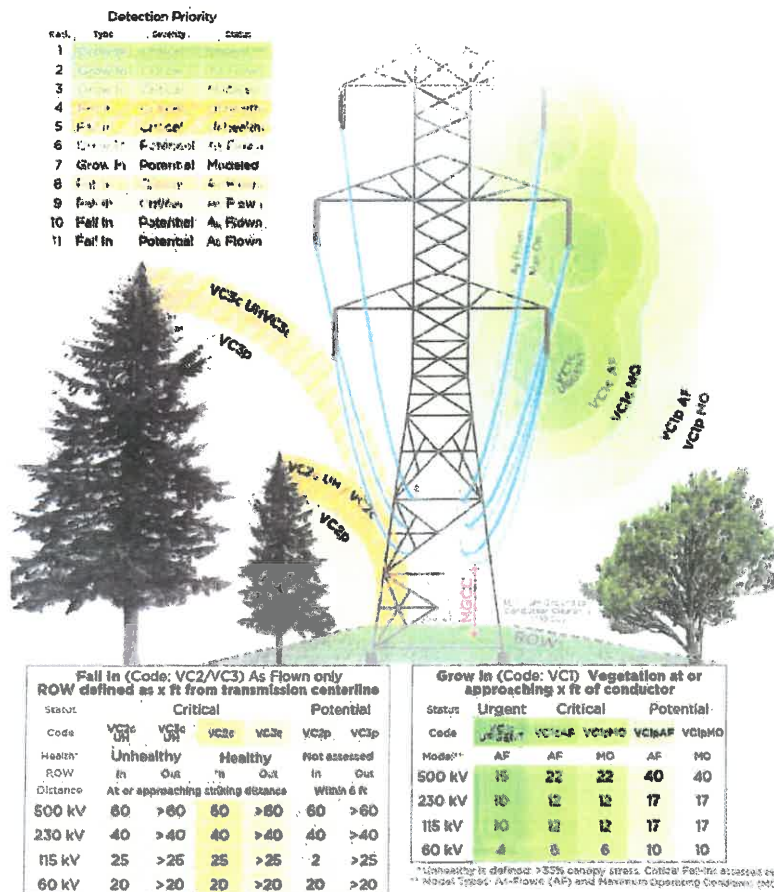
Zone 1 – within 18 inches (GO 95 Rule 35)

Zone 2 – Between 1.5 and 4 ft.

Zone 3 – Between 4 -12 ft. (PRC 4293)

Overhang - Reported as 12ft from the ground upwards to the sky. This can be adjusted prior to project start.

Transmission Tree Clearance Detection Parameters



Deliverables

- **Rapid Reporting in .kmz, and .csv file formats**
 - Provided within 2 weeks of collection for most urgent threats
- **Detection ESRI database (or other formats if needed)**
 - *Conductor vectors with locations displayed with cartographic properties representing conductor position relative to tower/pole*
 - *Vegetation segmentation attributed with clearance detections*
- **Lidar Rectified GIS Data in .gdb file format**
 - *Rectified Tower and Span locations*
- **PLS-CADD .bak files**
 - Transmission circuits As Flown and Max Op
- **Optional Transmission PLS-CADD engineering level .bak files**
- **Option Full City Orthoimagery – 6 inch color**

Delivery Method

NV5 has options for delivery method. Data can be provided in reports such as .csv and google earth kmz's. Data can also be provided in ESRI Geodatabase files or through our internal InSITE software.

Pricing Options

Pricing includes mobilization, set up, ground control, acquisition, processing and reporting of LiDAR. If additional areas are added to the contract the pricing will need to be adjusted, more mileage does provide more efficiencies and economy of scale.

Option 1 - Tier 2 Pricing - 141.0 12 kV, 62 115kV	
Acquisition - Lidar	\$ 61,009
Ground control	\$ 12,871
Transmission Analytics Tier 1 & 2	\$ 45,634
Tier 2 Distribution Analytics	\$ 96,324
Option 1 Total	\$ 215,838
Option 2 - Tier 1 & 2 Pricing - 269.6 12 kV, 62 115kV	
Acquisition - Lidar	\$ 61,009
Ground control	\$ 15,321
Transmission Analytics Tier 1 & 2	\$ 45,634
Tier 1 & 2 Distribution Analytics	\$ 151,908
Option 2 Total	\$ 273,872
Full City Orthoimagery	
Imagery Acquisition	\$ 9,227
Ground control	\$ 7,261
Orthoimagery processing	\$ 9,284
City Imagery Total	\$ 25,772

Schedule

Collection will begin in July/August 2021 timeframe once contract has been awarded. It is anticipated it will take approximately 1 week for data acquisition with rapid reporting being provided within 2 weeks of verified collection. Final deliverables will be provided 9 weeks from verified data acquisition.

We look forward to working with you to complete this project in a timely and cost-effective manner. Should you have any questions please call me at 925-558-5521 or email me at the address provided below.



Jennifer Whitacre, GISP
Sr. Director Strategic Accounts
jwhitacre@quantumspatial.com
C – 925-558-5521



Commission Staff Report – *DRAFT*

COMMISSION MEETING DATE: May 27, 2021

SUBJECT: NCPA Geothermal Plant 1 Fire System Modernization Project Request for Additional Funds; Applicable to the following: NCPA Geothermal Facility.

AGENDA CATEGORY: Discussion/Action

FROM:	Joel Ledesma	METHOD OF SELECTION:
	Assistant General Manager	<i>Competitive Pricing Process</i>
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Geothermal	

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

Approval of Amendment to Resolution 20-62 for the NCPA Geothermal Plant 1 Fire System Modernization Project, increasing the total not to exceed amount of this project from \$1,800,000 to \$3,800,000, and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project, and authorization for the use of up to \$2,000,000 from the Maintenance Reserve.

BACKGROUND:

The fire protection system at NCPA's Geothermal Plant 1 is malfunctioning, unserviceable, unsupported by the manufacturer, and therefore no longer operable and out of compliance. The Plant 1 fire protection system is critical to the safety of NCPA personnel and the preservation of plant equipment in the event of a fire. This project's objective is to modernize and meet all aspects of our California Energy Commission permit regarding fire detection, notification, and suppression.

The Fire Modernization Project was originally approved in the August 27, 2020 Commission Meeting (SR: 189:20: Res: 20-62) with a budget of not to exceed \$1,800,000. Project funds came from FY2021 Capital Project Budget of \$800,000 and Maintenance Reserve of \$1,000,000.

During the course of 3rd party inspections required by the California Energy Commission (CEC), as well as the contractor's project discovery phase, additional required work was identified, resulting in updates to the original scope for this project.

Updates to the scope include the following:

- Replacement of all pendant style sprinkler throughout the plant
- Inspection of all wet pipe sprinkler systems and provide assessment
- Replace wet pipe valves and monitoring hardware
- Extend wet pipe sprinkler system into HVAC Room
- Replace all air supply lines to deluge valves
- Replacement of CARDOX Tanks
- Replacement of high-pressure CO2 bottle system with a CO2 tank.
- Repair or replace damaged heat tracing and insulation throughout
- Repair or replace all deluge valves (includes 5-year inspection certification)
- Replace all activation stations
- Replace all main water isolation valves
- Replace valve and monitoring devices for the fire pump building

FISCAL IMPACT:

This amendment will result in a multi-year project spanning FY2021 and FY2022. The updated total not to exceed is \$3,800,000. \$3,000,000 of these funds will come from the Maintenance Reserve.

The Plant 1 Fire System Modernization Project additional scope forecast is shown below.

- Contractor's Proposed Project Cost = \$1,694,215.00
- 15% Contingency = \$254,132
- CEC Reviews and Inspections = \$40,000
- **Additional Project Authorization Total = \$2,000,000.00**

Unrelated to this project, the FY2022 Unit 4 Overhaul has been moved to Fall of FY2023 due to incorporating recommendations from a root cause analysis that is in progress. This root cause analysis was associated with the Spring 2020 Unit 4 Turbine Rotor Blade Shifting outage that resulted in a turbine swap. Those recommendations are required to ensure an appropriate scope of work to ensure reliability. This Unit 4 Overhaul timing change provides for adequate balance of funds of Maintenance Reserve to fund this increase request. Continued collections will result in adequate funds for the Unit 4 Overhaul in the Fall of FY2023.

Funding/(Expenditures)	Beginning Balance	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Reserve Activity												
Unit One Overhaul / Outage						(1,500,000)						(2,500,000)
Unit Two Overhaul / Outage						(2,000,000)						(1,750,000)
Unit Four Overhaul/ Outage			-3,500,000	(3,500,000)					(4,250,000)			
Well Replacement /Workover	(7,387,639)				(3,400,000)			(4,000,000)				
Plant #1 HVAC		(606,183)										
Plant #1 Fire Protection - Phase 1		(1,000,000)										
Plant #1 Fire Protection - Phase 2			(2,000,000)									
Contingent maintenance	2,630,000											
Projected Requirements		(1,606,183)	(2,000,000)	(3,500,000)	(3,400,000)	(3,500,000)	-	(4,000,000)	(4,250,000)	-	-	(4,250,000)
Annual Funding Req*		2,000,000	3,930,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Balance	428,555	822,372	2,752,372	2,752,372	2,852,372	2,852,372	6,352,372	5,852,372	5,102,372	8,602,372	12,102,372	11,352,372
Minimum Emergency Contingency Balance	\$2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000
*Estimated												

SELECTION PROCESS:

In accordance with NCPA's procurement policies and procedures, NCPA has solicited bids to perform the work required for this Project. This project was competitively bid and awarded to ORR Protection Systems, Inc.

ENVIRONMENTAL ANALYSIS:

This maintenance activity is exempt from the California Environmental Quality Act as a Class 1 Existing Facilities exemption (Title 14 California Code of Regulations Section 15301[b]). NCPA filed a Notice of Exemption that covers this activity with both Lake and Sonoma Counties. Thus, no environmental review of this action is necessary.

COMMITTEE REVIEW:

Pending Committee review.

AFTER FACILITIES APPROVAL: On May 5, 2021 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (1):

- Resolution 21-XX

RESOLUTION 20-62

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING THE AMENDMENT TO NCPA'S GEOTHERMAL PLANT 1 FIRE SYSTEM
MODERNIZATION PROJECT RESOLUTION**

(reference Staff Report #XXX:21)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains on behalf of the project owners a Geothermal Facility near Middletown, CA, consisting of two power plants; and

WHEREAS, the fire system at NCPA's Geothermal Plant 1 was determined to be malfunctioning, unserviceable, and therefore no longer operable and out of compliance, and it has been determined that the replacement, upgrade, and modernization of the existing fire system is needed to ensure the safety of NCPA personnel and protection for the Plant in the event of a fire; and

WHEREAS, the Geothermal Plant 1 Fire System Modernization Project was approved by the Commission at the August 27, 2020 Commission Meeting (SR 189:20; Reso: 20-62), with a budget of not to exceed \$1,800,000; and

WHEREAS, during the course of 3rd party inspections required by the California Energy Commission (CEC), as well as the contractor's project discovery phase, additional required work was identified which will result in changes to the scope of this project. This additional scope is necessary to achieve full replacement of the fire protection systems and to meet all aspects of the CEC permit; and

WHEREAS, this added scope will require an additional \$2,000,000 to complete, which will be funded from the Maintenance Reserve; and

WHEREAS, this maintenance activity is exempt from the California Environmental Quality Act as a Class 1 Existing Facilities exemption (Title 14 California Code of Regulations Section 15301[b]). NCPA filed a Notice of Exemption that covers this activity with both Lake and Sonoma Counties. Thus, no environmental review of this action is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the approval of Amendment to Resolution 20-62 for the NCPA Geothermal Plant 1 Fire System Modernization Project, increasing the total not to exceed amount of this project from \$1,800,000 to \$3,800,000, and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project, and authorizes the use of up to \$2,000,000 from the Maintenance Reserve.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2021, by the following vote on roll call:

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

DAVID HAGELE
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY