

651 Commerce Drive Roseville, CA 95678

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

Facilities Committee Meeting Agenda

Date:	January 4, 2023
Subject:	NCPA Facilities Committee Meeting
Location:	NCPA, 651 Commerce Drive, Roseville, California 95678 // Conference Call
Time:	9:00 am

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

ALAMEDA MUNICIPAL PWR	BAY AREA RAPID TRANSIT	CITY OF BIGGS
2000 Grand St., Alameda, CA	2150 Webster Street, 10 th Floor,	3016 Sixth Street, Biggs, CA
	Oakland, CA	
CITY OF GRIDLEY	CITY OF HEALDSBURG	CITY OF LODI
685 Kentucky Street, Gridley, CA	401 Grove Street, Healdsburg, CA	1331 S. Ham Lane, Lodi, CA
CITY OF LOMPOC	CITY OF PALO ALTO	PLUMAS-SIERRA REC
100 Civic Ctr. Plaza, Lompoc, CA	250 Hamilton Avenue, 3rd Floor	3524 Mulholland Way, Sacramento CA
	Palo Alto, CA	
PORT OF OAKLAND	CITY OF REDDING	CITY OF ROSEVILLE
530 Water Street, Oakland, CA	3611 Avtech Pkwy., Redding, CA	2090 Hilltop Circle, Roseville, CA
CITY OF SHASTA LAKE	SILICON VALLEY POWER	TURLOCK IRRIGATION DISTRICT
4332 Vallecito St., Shasta Lake, CA	881 Martin Ave., Santa Clara, CA	333 E. Canal Drive, Turlock, CA
CITY OF UKIAH		
300 Seminary Ave., Ukiah, CA		

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

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

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

REVIEW SAFETY PROCEDURES

1. Call Meeting to Order and Roll Call

PUBLIC FORUM

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

OPEN SESSION

DISCUSSION / ACTION ITEMS

- 2. Approval of Minutes Approve minutes from the December 7, 2022 Facilities Committee meeting.
- 3. Authorize NCPA's General Manager to Execute Confirmation Number 0290 for Performance Mechanical, Inc. Services to Roseville/Roseville Electric Utility and Issue a Purchase Order Under the Support Services Program Subject to approval by the Roseville City Council of the requested services under the terms of the Northern California Power Agency Support Services Program Agreement and its determination under CEQA, staff is seeking a recommendation for approval of Resolution 23-03 authorizing the NCPA General Manager or his designee to execute Confirmation Number 0290 in the amount not-to-exceed \$751,675.00, with any non-substantive changes as approved by the NCPA General Counsel, and issue a Purchase Order to Performance Mechanical, Inc. for HRSG maintenance, piping work, hydrotesting, other needed maintenance, outage support, and parts supply for Roseville during its spring 2023 outage. The Confirmation exceeds the General Manager's signing authority which requires Commission approval. Staff anticipates this item will be placed on the January 19, 2023 Commission agenda. (Commission Category: Consent; Sponsor: Administrative Services)
- 4. NCPA Geothermal Facility 2023 Amendment to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement for the Southeast Geysers Effluent Pipeline Project – Staff is seeking a recommendation for Commission Approval for the General Manager or his designee to enter into the 2023 Amendment to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement for the Southeast Geysers Effluent Pipeline (SEGEP) Project between NCPA and Geysers Power Company, LLC, extending the term of Exhibit A to the Agreement through September 17, 2028, with any non-substantial changes recommended and approved by NCPA General Counsel, for use at NCPA's Geothermal facility. (Commission Category: Consent; Sponsor: Geo)
- 5. NCPA CT Facilities Find the Proposed Activities of the Combustion Turbine Facilities 2023 Outages Qualify for CEQA Categorical Exemptions Found in the CEQA Guidelines Sections 15301(b), 15302(c), 15309 and 15311(c) (Classes 1, 2 and 9 as Described in Title 14 of the California Code of Regulations at §§15000 et seq.) – Staff is seeking a recommendation for Commission approval finding the proposed activities of the Combustion Turbine Facilities 2023 Outages qualify for CEQA categorical exemptions found in the CEQA Guidelines Sections 15301(b), 15302(c), 15309 and 15311(c) (Classes 1, 2 and 9 as described in Title 14 of the

California Code of Regulations at §§15000 et seq.). (Commission Category: Discussion/Action: Sponsor: CTs)

- 6. NCPA CT Facilities Combustion Turbine Facilities 2023 Outages Staff is seeking a recommendation for Commission approval authorizing the Combustion Turbine Facilities 2023 Outages and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the outages in accordance with NCPA Purchasing Policies and Procedures, without further approval by the Commission, for a total cost not exceed \$464,500. (Commission Category: Discussion/Action; Sponsor: CTs)
- 7. Reserve and Security Deposit Policies Study Staff will present and seek a recommendation for Commission approval to revise deposit calculation methodologies for the Schedule Coordination Program Agreement, Market Purchase Program, Gas Purchase Program, NCPA Green Power Project, Third Phase Agreements, and Single Member Services Agreements and authorization for the General Manager or his designee to temporarily implement revised Schedule Coordination Program Agreement deposit requirements through 2023 to allow time for the Members to vet and approve changes to the program agreement terms. (Commission Category: Discussion/Action; Sponsor: Administrative Services)
- 8. Resolution Commending Jiayo Chiang Adopt a resolution by all Facilities Committee Members commending the service of Jiayo Chiang, acting in the role of Facilities Committee Chair during Calendar Year 2022. (Sponsor: Power Management)

INFORMATIONAL ITEMS

- **9. New Business Opportunities –** Staff will provide an update regarding new business opportunities. (*Sponsor: Power Management*)
- **10. Nexant Cost Allocation Model Billing Determinants for FY 2024 –** Staff will review initial calendar year 2022 billing determinants that will be used in the FY 2024 Nexant Cost Allocation Model. (Sponsor: Power Settlements)
- 11. NCPA Geothermal Facility Geo Battery Energy Storage System NCPA Geothermal staff will share an informational presentation regarding a potential Battery Energy Storage System at Geo. (Sponsor: Geo)
- **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 February 1, 2023.

ADJOURNMENT

AB/cp



651 Commerce Drive Roseville, CA 95678

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Minutes – Draft

14, 2022
cilities Committee
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7, 2022 Facilities Committee Meeting Minutes

 Call Meeting to Order & Roll Call – The meeting was called to order by the Committee Vice Chair Alan Harbottle (Alameda) at 9:03 am. Attending via teleconference and on-line presentation were Dennis Schmidt (Biggs), Cliff Wagner (Gridley), CJ Berry (Lompoc), Micah Babbit (Palo Alto), Khaly Nguyen (Port of Oakland), Nick Rossow (Redding), and Basil Wong and Bill Her (Santa Clara). Peter Lorenz (non-voting Representative with TID) also attended via teleconference and online presentation. Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Healdsburg, Lodi, Plumas-Sierra, Shasta Lake, TID, and Ukiah were absent. A quorum of the Committee was established.

PUBLIC FORUM

No public comment.

OPEN SESSION

DISCUSSION / ACTION ITEMS

2. Approval of Minutes – Approve minutes from the November 2, 2022 Facilities Committee meeting, the November 15, 2022 Special Joint Facilities and Legal Committee meeting, and November 28, 2022 Special Facilities Committee meeting.

Motion: A motion was made by Cliff Wagner and seconded by Brian Schinstock recommending approval of the November 2, 2022 Facilities Committee meeting, the November 15, 2022 Special Joint Facilities and Legal Committee meeting, and November 28, 2022 Special Facilities Committee meeting. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lompoc, Palo Alto, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

3. Appointment of Facilities Committee Chair and Vice Chair – Approve the appointment of the 2022 Vice Chair, Alan Harbottle, as the 2023 Chair and the nomination of Shiva Swaminathan as the new Vice Chair.

Motion: A motion was made by Basil Wong and seconded by Cliff Wagner recommending approval of the appointment of the 2022 Vice Chair, Alan Harbottle, as the 2023 Chair, and nominates Shiva Swaminathan as the new Vice Chair. A vote was taken by roll call: YES =

Alameda, Biggs, Gridley, Lompoc, Palo Alto, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

4. All NCPA Facilities, Members, SCPPA – Mead & Hunt, Inc. MTPSA – Staff presented background information and was seeking a recommendation for Commission approval of a fiveyear Multi-Task Professional Services Agreement with Mead & Hunt, Inc. for engineering services, with a not to exceed amount of \$1,500,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

Mead & Hunt, 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. This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA has agreements in place for similar services with AECOM Technical Services, Black & Veatch, Condor Earth Technologies, GEI Consultants, Provost & Pritchard Consulting Group, and HDR Engineering. A draft Commission Staff Report and agreement were available for review. It is recommended to place this item on the Commission Consent Calendar.

Motion: A motion was made by Brian Schinstock and seconded by Basil Wong recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with Mead & Hunt, Inc. for engineering, environmental and regulatory services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,500,000.00 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, Lompoc, Palo Alto, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

5. All NCPA Facilities, Members, SCPPA – Trinity Consultants, Inc. MTPSA – Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Professional Services Agreement with Trinity Consultants, Inc. for air quality compliance support services, with a not to exceed amount of \$500,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

This is an existing vendor with NCPA. The current agreement is expiring. NCPA has utilized this vendor in the past, and has a good working relationship with this vendor. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are needed, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA has an agreement in place for similar services with Montrose Air Quality Services LLC and Yorke Engineering LLC. A draft Commission Staff Report and agreement were available for review. It is recommended to place this item on the Commission Consent Calendar.

Motion: A motion was made by CJ Berry and seconded by Khaly Nguyen recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with Trinity Consultants, Inc. for air quality compliance support services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$500,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lompoc, Palo Alto, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed. 6. All NCPA Facilities, Members, SCPPA – Nor-Cal Battery Company MTGSA – Staff provided background information and was seeking a recommendation for Commission approval of a five-year Multi-Task General Services Agreement with Nor-Cal Battery Company for battery related maintenance services, with a not to exceed amount of \$500,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

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

Motion: A motion was made by Basil Wong and seconded by Brian Schinstock recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Nor-Cal Battery Company for battery related maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$500,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lompoc, Palo Alto, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

7. All NCPA Facilities, Members, SCPPA – Sabah International MTGSA – Staff provided background information and was seeking a recommendation for Commission approval of a fiveyear Multi-Task General Services Agreement with Sabah International for fire system maintenance services, with a not to exceed amount of \$500,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, and SCPPA Members.

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

Motion: A motion was made by CJ Berry and seconded by Micah Babbit recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Sabah International Incorporated for fire system maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$500,000 over five years, for use at any facilities owned and/or operated by NCPA, NCPA Members, by SCPPA and SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lompoc, Palo Alto, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

8. Resolution 23-01, Authorize NCPA General Manager to Execute Confirmation Number 0280 for EvapTech, Inc. services to the City of Roseville and Issue a Purchase Order under the Support Services Program Agreement – Approval of Resolution 23-01 authorizing the NCPA General Manager or his designee to execute Confirmation Number 0280 with a not-to-exceed

amount of \$282,320.00, with any non-substantive changes as approved by the NCPA General Counsel, and issue a Purchase Order to EvapTech, Inc. for cooling tower maintenance, rehabilitation, and parts supply services for the Roseville Generation Park generation facilities. The City of Roseville became a signatory to the NCPA Support Services Program Agreement (SSPA) on October 5, 2015, 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 October 2022 the City of Roseville/Roseville Electric Utility (Roseville) submitted a Member Task Request under the SSPA for EvapTech, Inc. to provide cooling tower maintenance, rehabilitation, and parts supply for the Roseville Energy Park facilities during its Spring 2023 outage. Pursuant to the EvapTech, Inc. proposal, the cost for the services is \$260,645.00. In addition, Roseville staff has requested the addition of a \$20,000.00 contingency to allow for additional services as may be requested.

If approved, Confirmation Number 0280 states that NCPA agrees to provide the requested services through its contract with EvapTech, Inc. in the amount of not-to-exceed \$280,645.00. There is no guarantee that the full amount of possible services will be paid to EvapTech, Inc. but is merely a limit of potential expenditures for services under Confirmation Number 0280. With the addition of NCPA's administrative fees which will be billed out as actually incurred, the total amount expended under the Confirmation will not exceed \$282,320.00.

Motion: A motion was made by Brian Schinstock and seconded by Micah Babbit recommending Commission approval, subject to approval by the Roseville City Council of the requested services under the terms of the Northern California Power Agency (NCPA) Support Services Program Agreement, approval of Resolution 23-01 authorizing the NCPA General Manager or his designee to execute Confirmation Number 0280 with a not-to-exceed amount of \$282,320.00, with any non-substantive changes as approved by the NCPA General Counsel, and issue a Purchase Order to EvapTech, Inc. for cooling tower maintenance, rehabilitation, and parts supply for the Roseville Energy Park facilities. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lompoc, Palo Alto, Port of Oakland, Redding, Roseville, and Santa Clara. The motion passed.

9. Reserve and Security Deposit Policies Study – Staff presented background information and was seeking a recommendation for Commission approval to revise deposit calculation methodologies for the Schedule Coordination Program Agreement, Market Purchase Program, Gas Purchase Program, NCPA Green Power Project, and Third Phase Agreements and approval for authorizing the General Manager or his designee to temporarily implement revised deposit requirements until respective program agreement terms are amended.

Goals of the Reserve and Security Deposit Policies Study included:

- Minimize risks to Members and NCPA
- Right size reserves
- Review methodologies for appropriateness
- Independent review and input
- Best practices

NCPA believes current plant reserve methodologies provide sufficient liquidity and recommends retaining current plant structures. Staff reviewed the recommendation of the Power Management Services Programs revised methodologies. The revised Schedule Coordination Program Agreements deposit calculation will be based on the highest two months of estimated CAISO costs. The revised deposit calculation for the Third Phase Agreements, Market Purchase Program, Gas Purchase Program, NCPA Green Power Program, and Single Member Services Agreements will be based on the highest single-month contract cost(s) plus the two highest months of negative Mark-to-Market. Members are supportive of the revised deposit calculation methodologies. However, Members expressed that they would like more discussion regarding the language in the agreements, and whether or not a resolution or a standing policy document is needed for approval of the revised deposit calculations.

No action was taken on this item. Staff will bring this item back to the Facilities Committee for final review and a recommendation for Commission approval.

INFORMATIONAL ITEMS

- 10. New Business Opportunities No update was provided at the time of this meeting.
- 11. Review of Power Supply Assumptions Staff provided an overview of the Power Supply Assumptions for the FY 2024 Annual Budget Schedule. SAS OR software is used to optimize generation output as a function of hourly prices, plant operations constraints, outages, and hydro conditions. The key input variables were reviewed by staff, and such input variables were used in the forward curves from EOX's November 30, 2022 model run that forms the basis for the forecasted generation output used in the budget. Staff reviewed the specific data that was used for NCPA Projects including Geo, Hydro, and LEC. The models for the CTs and SFWPA are still be adjusted by staff, and will be provided to Members once they are completed. Summaries of the model outputs were presented to, and reviewed by the Committee. Optimization models were run in December and will be distributed to Plant Managers for review.

The preliminary load-resource balances that will be used in the FY 2024 budget process will be ready for Members review and consideration by January 6, 2023. The final budget inputs are due to the Accounting Division by January 13, 2023, with the final FY 2024 power supply models distributed to Members thereafter. Please contact Ken Goeke with any questions you may have at ken.goeke@ncpa.com.

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

CTs – CT1 had 1 actual real time start of 1 forecasted. FYTD total is 84 starts, including three starts for Alameda overspeed testing. CT2 had 0 actual starts, of 8 forecasted. FYTD total is 18 starts.

- Forced Outages
 - CT1 Lodi on 11/1 @ 16:14 18:19; Fuel gas compressor no oil flow indication caused by faulty switch.
 - Alameda U1 on 11/8 @ 11:55 15:09; Diesel DC starting motor failure caused failed start during overspeed trip testing.
 - Alameda U1 on 11/22 @ 13:58 15:20; Lube oil temp transmitter lost indication. Cycled power and restored communication.
 - Alameda U2 on 11/23 @ 22:49 11/24 @ 01:00; Lube oil temp transmitter lost indication. Cycled power and restored communication.
 - CT2 on 10/31 @ 00:00 11/2 @ 18:00; HRSG tube leak repairs.
- Planned Outages
 - CT1 Lodi- 2/1/23 thru 2/28/23
 - CT1 Alameda- U1/U2- 3/1/23 thru 3/31/23
 - CT2 STIG- 4/1/23 thru 4/30/23

CT1 Lodi corrected run hours is 172.9 (86%) of 200 allowed based on a calendar year. CT1 Alameda Diesel Unit 1 has used 7.31 hours of 20, and Unit 2, 7.86 hours of 20, based on a rolling year. Staff reviewed the CAISO Commitment Runs for October 2022.

Geo – There were no safety incidents to report for the month of November. Safety training is 81% complete. The average net generation level for the month was 73.2 MW. Total net generation was 52.7 GWh. The actual year 2022 net generation was 708.4 GWh YTD, 4% over forecasted. The year 2022 net generation forecast was 681.3 GWh YTD. The H-Line Pipeline repairs have been completed, and the Unit 4 Overhaul is progressing. The general scope of work for the Unit 4 overhaul includes:

- Unit 4 Turbine Generator Repairs
 - Turbine Rotor Replacement
 - Diaphragm Repairs
 - Generator Rotor Replacement
 - Casing Repairs
- Inspection & Testing of 13.8 KV and 480 V Bus Work and Breakers
- Repair Main Steam Stop Valves
- Clean Unit #4 Main Condenser Tubes
- Clean Gas Removal System Condensers
- Clean Unit #4 Cooling Tower Basin
- Repairs to Plant #2 Stretford System

Hydro – Collierville (CV) Power House and New Spicer Meadows (NMS) Power House were at 100% availability during the month of November. NMS storage decreased by 4,690 acre feet at 6% month over month from 80,290 acre feet to 75,600 acre feet. At this time last year New Spicer Meadows Reservoir storage was 61,190 acre feet. The CV cooling water pump installation was completed November 4, 2022. Current maintenance activities include inspection and sampling of NSM water tank, and Utica Dam outlet operator installation during December and January. Regulatory events for the month included:

- OES approval of EAPs for Spicer, McKays, Utica, Alpine
- Preparation of the water temperature report
- Preparation of FERC Recreation annual report
- Preparing the FERC Security annual report
- Preparing the FERC and DSOD annual DSSMR
- Preparing the USGS water year report

13. Planning and Operations Update -

Current Resource Integration Activities

- Resource Integrations In Progress
 - Antelope Solar (NCPA) Achieved COD November 30, 2022
 - Palo Alto Rosamond January 1, 2023
 - Sandborne Storage Q1 2023
 - Dagget Solar / Storage Q2 2023
 - Scarlet Solar / Storage Q3 2023
 - Pending Lodi Thermal Project June 2023
 - Proxima Solar / Storage Q1 2024
 - Deer Creek On Hold

CAISO EDAM

- Background
 - Extension of Energy Imbalance Market (EIM) into the Day-Ahead Market timeline
 - Effective extension of DAM through Western states
- Key Considerations
 - Transmission availability and usage

- Resource Sufficiency Evaluation (RSE) Test
- DAM Market Process
- Transfer Revenue and Congestion Revenue Allocation
- Price Formation and Threshold for Participation
- Distribution of Benefits

Consulting Services RFP

- The City of Palo Alto has expressed interest in NCPA issuing a RFP to expand access to certain consulting services including:
 - Electric supply related activities (e.g., IRP)
 - Electric transmission related services (e.g., grid planning)
 - Demand side services (e.g., demand response)
 - General economic analysis support
 - Sustainability and related analysis
 - Natural gas regulatory services

Members are asked to please contact staff with feedback and interest in this RFP.

Geysers Power Company, LLC PPA and Third Phase Agreement

The PPA and Third Phase Agreements were approved at the December 1, 2022 Commission meeting. Staff is very close to finalizing the PPA with the RPS and RA transactions. Once the agreement has been finalized, execution of the Third Phase agreement with Santa Clara will take place and then the PPA will be executed by NCPA and the Geysers Power Company, LLC. Assignors in the Third Phase Agreement will need to go through their specific counsel approval process by the deadline date per the PPA.

14. Next Meeting – The next Facilities Committee meeting is scheduled for January 4, 2023.

ADJOURNMENT

The meeting was adjourned at 11:30 am by the Committee Vice Chair.



Commission Staff Report

COMMISSION MEETING DATE: January 19, 2023

SUBJECT: Authorize Northern California Power Agency General Manager to Execute Confirmation Number 0290 for Performance Mechanical, Inc. Services to the City of Roseville/Roseville Electric Utility and Issue a Purchase Order Under the Support Services Program

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

Subject to approval by the Roseville City Council of the requested services under the terms of the Northern California Power Agency (NCPA) Support Services Program Agreement and its determination under CEQA, approval of Resolution 23-03 authorizing the NCPA General Manager or his designee to execute Confirmation Number 0290 with a not-to-exceed amount of \$751,675.00, with any non-substantive changes as approved by the NCPA General Counsel, and issue a Purchase Order to Performance Mechanical, Inc. for HRSG maintenance, piping work, hydrotesting, other needed maintenance, outage support, and parts supply for the Roseville Energy Park facilities during its spring 2023 outage.

BACKGROUND:

The City of Roseville became a signatory to the NCPA Support Services Program Agreement (SSPA) on October 5, 2015, 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 October 2022 the City of Roseville/Roseville Electric Utility (Roseville) submitted a Member Task Request under the SSPA for Performance Mechanical, Inc. to provide various maintenance, piping work, troubleshooting, outage support, and parts supply for the Roseville Energy Park facilities during its Spring 2023 outage. Roseville requested the services be provided on a time and materials basis in accordance with the rate sheet and rates information attached to Confirmation Number 0290 as Exhibit "A".

If approved, Confirmation Number 0290 states that NCPA agrees to provide the requested services through its contract with Performance Mechanical, Inc. in the amount of not-to-exceed \$750.000.00. There is no guarantee that the full amount of possible services will be paid to Performance Mechanical, Inc. but is merely a limit of potential expenditures for services under Confirmation Number 0290. With the addition of NCPA's administrative fees which will be billed out as actually incurred, the total amount expended under the Confirmation will not exceed \$751,675.00.

This item will be considered by the Roseville City Council at an upcoming meeting, and is subject to that approval.

FISCAL IMPACT:

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

SELECTION PROCESS:

Roseville will utilize Performance Mechanical, 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 Roseville's Purchasing Policies.

ENVIRONMENTAL ANALYSIS:

Roseville has determined the action contemplated by this Confirmation does not require further analysis under the California Environmental Quality Act (CEQA) because the activity is either not a project as that term is used in CEQA or is covered by exemption(s) to CEQA. NCPA acting as a responsible agency in this context is relying upon Roseville's determination as the lead agency under CEQA. If Roseville determines it needs to prepare a CEQA analysis for the action supported by this Confirmation, Roseville shall inform NCPA to allow NCPA to fulfill its CEQA responsibilities as a responsible agency.

COMMITTEE REVIEW:

On January 4, 2023, the Facilities Committee will review this item.

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments:

- Resolution 23-03
- Proposed Confirmation Number 0290

RESOLUTION 23-03

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY AUTHORIZING THE GENERAL MANAGER TO EXECUTE CONFIRMATION NUMBER 0290 FOR PERFORMANCE MECHANICAL, INC. SERVICES TO THE CITY OF ROSEVILLE/ROSEVILLE ELECTRIC UTILITY AND ISSUE A PURCHASE ORDER UNDER THE SUPPORT SERVICES PROGRAM

(reference Staff Report #102:23)

WHEREAS, the City of Roseville became a signatory to the NCPA Support Services Program Agreement (SSPA) on October 5, 2015, 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, the City of Roseville/Roseville Electric Utility (Roseville) submitted a Member Task Request under the SSPA for Performance Mechanical, Inc. to provide HRSG maintenance, piping work, hydrotesting, other needed maintenance, outage support, and parts supply for the Roseville Energy Park facilities during its Spring 2023 outage. Roseville requested the services be provided on a time and materials basis in accordance with the rate sheet and rates information attached to Confirmation Number 0290 as Exhibit "A"; and

WHEREAS, Confirmation Number 0290 states that NCPA agrees to provide the requested services through its contract with Performance Mechanical, Inc. in the amount of not-to-exceed \$750,000.00. There is no guarantee that the full amount of possible services will be paid to Performance Mechanical, Inc. but is merely a limit of potential expenditures for services under Confirmation No. 0290. With the addition of NCPA's administrative fees which will be billed out as actually incurred, the total amount expended under the Confirmation will not exceed \$751,675.00; and

WHEREAS, this item will be considered by the Roseville City Council at an upcoming meeting and is subject to that approval; and

WHEREAS; Roseville has determined the action contemplated by this Confirmation does not require further analysis under the California Environmental Quality Act (CEQA) because the activity is either not a project as that term is used in CEQA or is covered by exemption(s) to CEQA. NCPA acting as a responsible agency in this context is relying upon Roseville's determination as the lead agency under CEQA. If Roseville determines it needs to prepare a CEQA analysis for the action supported by this Confirmation, Roseville shall inform NCPA to allow NCPA to fulfill its CEQA responsibilities as a responsible agency; and

NOW, THEREFORE BE IT RESOLVED, subject to approval by the Roseville City Council of the requested services under the terms of the Support Services Program Agreement and its determination under CEQA, the Commission of the Northern California Power Agency authorizes the NCPA General Manager or his designee to execute Confirmation Number 0290 with a not-to-exceed amount of \$751,675.00, with any non-substantive changes as approved by the NCPA General Counsel, and issue a Purchase Order to Performance Mechanical, Inc. for HRSG maintenance, piping work, hydrotesting, other needed maintenance, outage support, and parts supply for the City of Roseville/Roseville Electric Utility during its spring 2023 outage. PASSED, ADOPTED and APPROVED this ____ day of _____, 2022, by the following vote on roll call:

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

JERRY SERVENTI CHAIR ATTEST:

TRISHA ZIMMER ASSISTANT SECRETARY

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 ROSEVILLE in the amount of not-to-exceed \$750,000.00 for the Performance Mechanical, Inc. work described in paragraph 3. The dollar amount is not a guarantee that the full amount will be paid to Performance Mechanical, Inc. but is merely a limit of potential expenditures under this Confirmation.

3. The Participating Member requests the following described Support Services in the dollar amount specified. NORTHERN CALIFORNIA POWER AGENCY (NCPA) agrees to provide the following Support Services to the Participating Member:

Performance Mechanical, Inc. shall provide maintenance services on a time and materials basis during Roseville Electric Utility's spring 2023 outage including but not limited to piping work, hydrotesting, HRSG maintenance, catalyst maintenance, troubleshooting, underground piping maintenance, outage support, rotating equipment alignment, structural steel work as necessary to provide access for necessary facility maintenance, and parts supply for the Roseville Energy Park generation facilities. The rates for said services are set forth in attached Exhibit "A", including the current rate schedule and rates information for time and materials projects.

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 of not to exceed \$1,675.00 (\$685.00 to develop the Confirmation and first month of administration, plus \$165 per month for six additional months) to be billed as costs are actually incurred, in accordance with the provisions of the Support Services Program Agreement. The total amount expended under this Confirmation will not exceed \$751,675.00.

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

6. The Participating Member has determined the action contemplated by this Confirmation does not require further analysis under the California Environmental Quality Act (CEQA) because the activity is either not a project as that term is used in CEQA or is covered by exemption(s) to CEQA. NCPA acting as a responsible agency in this context is relying upon Participating Member's determination as the lead agency under CEQA. If Participating Member determines it needs to prepare a CEQA analysis for the action supported by this Confirmation, Participating Member shall inform NCPA to allow NCPA to fulfill its CEQA responsibilities as a responsible agency.

fulfill its CEQA responsibilities as a responsible agency.							
Date:	Date:						
Participating Member: CITY OF ROSEVILLE By its Designated Representatives:	NORTHERN CALIFORNIA POWER AGENCY						
Daniel Beans, Electric Utility Director	Randy S. Howard, General Manager						

ES-AGY-2016-001

Confirmation No. 0290

And

Michelle Sheidenberger, City Attorney

Assistant Secretary to Commission

Approved as to form:

Jane E. Luckhardt, NCPA General Counsel



City of Roseville

Sacramento County

Performance Mechanical, Inc.

General Engineering Contractor California License No. 475516

DAY SHIFT

Sacramento County						
Labor Rates Effective:	1-Jul-22	То	30-Jun-23			
	ST	TH	DT	ST	тн	DT
BOILERMAKERS						
JOURNEYMAN	125.31	166.54	207.76			
ASST FOREMAN	127.10	169.05	217.32			
FOREMAN	134.09	178.84	229.93			
GENERAL FOREMAN	142.49	190.62	245.08			
SUPERINTENDENT	151.09	202.67	260.58			
HELPER	55.08	70.27	85.46			
APPR 1	104.70	137.63	176.90			
APPR 2	108.13	142.45	183.10			
APPR 3	111.57	147.27	189.30			
APPR 4	115.00	152.09	195.50			
APPR 5	118.44	156.90	201.69			
APPR 6	121.88	161.72	207.89			
CARPENTERS						
JOURNEYMAN	117.77	147.25	176.72			
FOREMAN	134.37	170.51	206.66			
GENERAL FOREMAN	152.35	195.73	239.11			
LABORERS			200.11			
JOURNEYMAN	86.31	106.02	125.73			
FOREMAN	89.18	110.04	130.90			
MILLWRIGHTS			100.00			
JOURNEYMAN	123.30	154.22	185.13			
FOREMAN	136.16	172.25	208.33			
GENERAL FOREMAN	141.17	179.27	217.37			
APPR 1	70.12	88.67	107.22			
APPR 2	78.26	98.36	118.45			
APPR 3	86.76	108.40	130.04			
APPR 4	90.61	113.79	136.98			
APPR 5	107.92	132.65	157.38			
APPR 6	111.76	138.04	164.32			
APPR7	115.61	143.43	171.26			
APPR8	119.46	148.83	178.20			
PIPEFITTERS - FIELD				PIPEFITTE	ERS - Sacran	nanto Shon
JOURNEYMAN	122.05	155.64	189.23	125.07	158.66	192.25
FOREMAN	135.42		213.36	138.44	177.41	216.38
GENERAL FOREMAN	140.45	181.44	222.43	143.47	184.46	225.45
SUPERINTENDENT	148.80	193.14	237.48	151.82	196.16	240.50
APPR 1	54.51	67.94	81.38	57.53	70.96	84.40
APPR 2	58.69	73.80	88.92	61.71	76.82	91.94
APPR 3	62.87	79.66	96.46	65.89	82.68	
APPR 4	67.05	85.52	104.00	70.06	88.54	99.48 107.02
APPR 5	88.61	108.77	128.92	91.63	111.79	131.94
APPR 6	92.79	114.63	136.46	95.81	117.65	
APPR 7	96.97	120.49	144.00	99.99	123.51	139.48 147.02
APPR 8	101.15	126.35	151.54	104.17	129.37	154.56
APPR 9	105.33	132.21	159.08	104.17	135.22	162.10
Sacramonto Offico	100.00			100.00	100.22	102.10

Sacramento Office 6001 Midway Street, Sacramento, CA 95828 (916) 421-4087 – Fax (888) 841-6156 Corporate Office-Pittsburg 701 Willow Pass Road Suite #2 Pittsburg, CA (925) 432-4080 – Fax (925) 432-0170 Los Angeles Office 5401 McFadden Ave, Huntington Beach, CA 92649 (310) 327-3205 – Fax (310) 516-0218

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Performance Mechanical, Inc.

General Engineering Contractor California License No. 475516

APPR 10	109.51	138.06	166.62	112.53	141.08	169.64
FIELD STAFF						
EST/PROJECT MGR	139.00	196.00	252.00			
PROJECT ENGINEER	103.00	144.00	184.00			
FIELD ENGINEER	89.00	122.00	156.00			
SCHEDULER	134.00	189.00	243.00			
CAD DETAILER	129.00	171.00	214.00			
INFO SYSTEM TECH	89.00	123.00	157.00			
QC	130.00	182.00	233.00			
SAFETY	103.00	144.00	184.00			
TIMEKEEPER	54.00	74.00	95.00			
CLERICAL	49.00	67.00	85.00			

NOTE: PMI RESERVES THE RIGHT TO ISSUE CHANGES AS NEGOTIATED WITH THE UNIONS/AND OR CHANGES RELATED TO OTHER VARIABLES WITHIN THE RATE STRUCTURE. An EMCOR Company .



City of Roseville

Performance Mechanical, Inc.

General Engineering Contractor California License No. 475516

NIGHT SHIFT

City of Roseville		NIGHT	SHIFT			
Sacramento County						
Labor Rates Effective:	1-Jul-22	То	30-Jun-23			
	ST	TH	DT	ST	тн	DT
BOILERMAKERS						
JOURNEYMAN	137.84	183.19	228.54			
ASST FOREMAN	139.81	185.95	239.05			
FOREMAN	147.50	196.73	252.92			
GENERAL FOREMAN	156.74	209.69	269.59			
SUPERINTENDENT	166.19	222.93	286.63			
HELPER	60.59	77.30	94.00			
APPR 1	115.16	151.40	194.59			
APPR 2	118.94	156.70	201.41			
APPR 3	122.72	161.99	208.23			
APPR 4	126.50	167.29	215.05			
APPR 5	130.28	172.59	221.86			
APPR 6	134.06	177.89	228.68			
CARPENTERS						
JOURNEYMAN	129.55	161.97	194.40			
FOREMAN	147.80	187.57	227.33			
GENERAL FOREMAN	167.59	215.30	263.02			
LABORERS						
JOURNEYMAN	94.94	116.62	138.31			
FOREMAN	98.09	121.04	143.99			
MILLWRIGHTS						
JOURNEYMAN	135.63	169.64	203.65			
FOREMAN	149.78	189.47	229.16			
GENERAL FOREMAN	155.29	197.20	239.11			
APPR 1	77.13	97.54	117.94			
APPR 2	86.09	108.19	130.30			
APPR 3	95.43	119.24	143.04			
APPR 4	99.67	125.17	150.68			
APPR 5	118.71	145.91	173.12			
APPR 6	122.94	151.84	180.75			
APPR7	127.17	157.78	188.38			
APPR8	131.40	163.71	196.01			
PIPEFITTERS - FIELD						
JOURNEYMAN	134.26	171.21	208.16			
FOREMAN	148.97	191.83	234.69			
GENERAL FOREMAN	154.50	199.59	244.67			
SUPERINTENDENT	163.68	212.45	261.23			
APPR 1	59.96	74.74	89.52			
APPR 2	64.56	81.18	97.81			
APPR 3	69.15	87.63	106.10			
APPR 4	73.75	94.07	114.40			
APPR 5	97.48	119.65	141.82			
APPR 6	102.07	126.09	150.11			
APPR 7	106.67	132.54	158.40			
APPR 8	111.27	138.98	166.69			
APPR 9	115.87	145.43	174.99			

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Performance Mechanical, Inc.

General Engineering Contractor California License No. 475516

APPR 10	120.46	151.87	183.28
FIELD STAFF			
EST/PROJECT MGR	139.00	196.00	252.00
PROJECT ENGINEER	103.00	144.00	184.00
FIELD ENGINEER	89.00	122.00	156.00
SCHEDULER	134.00	189.00	243.00
CAD DETAILER	129.00	171.00	214.00
INFO SYSTEM TECH	89.00	123.00	157.00
QC	130.00	182.00	233.00
SAFETY	103.00	144.00	184.00
TIMEKEEPER	54.00	74.00	95.00
CLERICAL	49.00	67.00	85.00

NOTE: PMI RESERVES THE RIGHT TO ISSUE CHANGES AS NEGOTIATED WITH THE UNIONS/AND OR CHANGES RELATED TO OTHER VARIABLES WITHIN THE RATE STRUCTURE.

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Performance Mechanical, Inc.

Labor and Equipment Rates for T&M Projects

Attached are our current labor and equipment rates. The labor rates include small tools up to \$500 in value, standard safety equipment and PPE, and consumables. A list of normally included consumables is included with the equipment rates. Oxygen and acetylene are included in the consumables rates. Welding rod, filler wire, purge and welding gases are reimbursable. The equipment rates apply to PMI owned equipment. Third party rentals are billable at cost plus markup.

These rates also included all insurance, employment taxes, overhead and profit.

All crafts at all levels employed at the work location are reimbursable. Shop labor is reimbursable when approved in advance by the client. Apprentices are billed at the actual apprentice level, per union dispatch. Apprentice ratios are dictated by union agreement, job complexity, and availability. We always strive to maintain the most competitive crew ratio possible without negatively impacting productivity.

Indirect field staffing, i.e.-project managers, field engineers, safety, QC or clerical staff is reimbursable when assigned to the project for project specific work only. This can include time spent on site or at the home office. QC supervision is also reimbursable for all code work. Typical home office management is included in the overhead. Client should be notified in advance of anticipated billable hours for these items.

Markups for materials, third party rentals and subcontractors are as follows:

Material – 10% Third Party Rentals – 10% Subcontractors and Outside Services – 15%

The included rates are valid until June 30, 2020. Labor rates for pipefitters, carpenters, millwrights and laborers are subject to change periodically, per the various crafts Master Labor Agreements, however typically go up every July 1. Boilermaker labor rates typically change on October 1 annually. Revised rates are issued accordingly as soon as we receive wage and benefit information from the local unions.

Depending on the nature and duration of the requested on-call services, travel time, and subsistence cots may apply for supervision and key personnel. These costs will be discussed and agreed up on a case by case basis. Typically, these costs should not exceed the standard government rates and terms for travel time and per diem. For all other craft classifications, travel and subsistence, if required, will be per the applicable union labor agreement.

ASME Code Repairs and Alterations:

For code repairs, alterations, and re-rates the following ASME Certification charges shall apply. These charges are per occurrence:

Code Repairs - \$750 Re-rates and Alterations - \$1,500

State of California, DOSH Authorized Inspector – Actual hours at current rate of \$135 per hour, plus expenses

PMI Quality Control inspection will be billed per the attached labor and equipment rates.

<u>California Fire Marshall and State Lands Testing:</u> Certification fee for State Lands and State Fire Marshall Hydro Tests is \$3,500 per occurrence.

PMI Quality Control inspection and all required testing equipment will be billed per the attached labor and equipment rates.

Modified Markups

In the event where Roseville Electric Utility would like to use our procurement and accounting services to expedite procurement and delivery of materials and equipment; and/or utilize our subcontracting abilities to obtain services that are outside of PMI's scope of work, than the proposed Modified Markups below shall be utilized by Roseville Electric Utility.

- 1. Material and equipment purchases
 - a. Markups assume that the vendor will agree to quote equipment FOB Roseville Energy Park, Roseville, CA. or Roseville Power Plant #2, Roseville, CA.
 - b. PMI will not be responsible for delays in vendor performance or shipping.
 - c. Markups to be as follows:
 - i. \$0-\$9,999 Markup to remain 10%
 - ii. \$10,000 \$99,999 Markup to be 8%
 - iii. \$100,000 or greater Markup to be 7%
- 2. Subcontracts and Outside Services
 - a. Vendors must pre-qualify as a PMI subcontractor and accept PMI subcontract terms and conditions
 - b. Any on-site supervision or safety supervision required by PMI will be in addition to the markup (to be billed using our proposed T&M Rates)
 - c. PMI will not be liable for the performance of the vendor; or for back charges, rework or lost production based on unacceptable performance of the subcontractor
 - d. PMI to be reimbursed by Roseville Electric Utility for the cost of managing and correcting any warranty issues should the Roseville Electric Utility vendor fail to correct or reimburse PMI for said warranty issues.
 - e. Markups to be as follows:
 - i. For subcontractors already qualified as acceptable PMI subcontractors Markup to be 10% regardless of contract value.
 - ii. For new subcontractors –

- \$0-14,999 Markup to be flat fee of \$1,500
 \$15,000 or greater Markup to be 10%



Commission Staff Report – DRAFT

COMMISSION MEETING DATE: January 19, 2023

SUBJECT: 2023 Amendment to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project (SEGEP). Applicable to the following projects: NCPA Geothermal facility.

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

Approve Resolution 23-XX delegating authority to the NCPA General Manager or his designee to enter into the 2023 Amendment to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project (SEGEP) between NCPA and Geysers Power Company, LLC, extending the term of Exhibit A to the Agreement through September 17, 2028, with any non-substantial changes recommended and approved by NCPA General Counsel, for use at NCPA's Geothermal facility.

BACKGROUND:

The Southeast Geysers Effluent Pipeline (SEGEP) Project is a cooperative project between Lake County Sanitation District, Calpine, and NCPA that has been in operation since September 23, 1997. The project provides wastewater to The Geysers for the purposes of maintaining the reservoir pressure and increasing steam reserves of the geothermal field.

Calpine and NCPA share in the operating and maintenance costs for SEGEP, as detailed in the Steam Suppliers Joint Operating Agreement (JOA). Per the JOA, Electrical power to operate the pumps stations can be supplied by either Calpine or NCPA. The value of the electrical power is based on the Local Market Price. Calpine and NCPA either pays or reimburses the other entity for their share of electrical power. The payment or reimbursement is based on the volume of water each receive during a calendar year.

In addition, both Calpine and NCPA receive Bucket 0 Renewable Energy Credits (REC's) for the electrical power supplied to the effluent pipeline. Calpine as a private corporation is allowed to convert the Bucket 0 REC's into Bucket 3 REC's that are typically valued at \$0.50 to \$1.00 per MWhr. Members of NCPA, as a Public Agency, are allowed to convert the Bucket 0 REC's into Bucket 1 REC's that are typically valued around \$15 per MWhr.

An Amendment to the Steam Suppliers Joint Operating Agreement SEGEP Project was signed on March 2, 2018, which required NCPA to provide the entire power supply for the Bear Canyon Pump Stations except in outage situations. This allowed Calpine to sell power normally reserved for SEGEP on the Day Ahead market and receive higher valued Bucket 1 REC's. In return, Calpine compensated NCPA for its relative share of the electricity costs at the Local Market Price and further paid NCPA one half the value of a Bucket 1 REC or \$7.50 per MWhr for all electricity supplied to SEGEP.

A further Amendment to the Steam Suppliers Joint Operating Agreement SEGEP Project was signed on February 1, 2021 adding clarifying language to describe the parties' agreement with respect to the supply of power to the Bear Canyon Pump Stations, and extending the term of Exhibit A of the agreement to January 28, 2021.

This 2023 Amendment extends the term of Exhibit A to the underlying agreement through September 17, 2028, to coincide with the current expiration date of the Steam Suppliers Joint Operating Agreement.

FISCAL IMPACT:

Approval of the 2023 Amendment to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement for SEGEP will result in approximately \$60,000 to \$90,000 per year in revenue to NCPA.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

Pending Committee review and approval.

AFTER FACILITEIS APPROVAL: The recommendation above was reviewed by the Facilities Committee on January 4, 2023, and was recommended for Commission approval on Consent Calendar.

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (3):

- Resolution
- Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project (SEGEP)
- 2023 Amendment to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project (SEGEP)

RESOLUTION 23-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE 2023 AMENDMENT TO THE SECOND AMENDMENT AND RESTATEMENT OF THE STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT (SEGEP)

(reference Staff Report #XXX:23)

WHEREAS, the Parties originally entered into a Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project (SEGEP) on July 25, 1995, which established and provided for certain terms and conditions relating to their participation in and responsibility for the operation of that portion of the Southeast Geysers Effluent Pipeline Project ("Project") which commences at the Point-of-Delivery and terminates at The Geysers Terminus; and

WHEREAS, the Parties executed "Amendment No. 1 to the Steam Suppliers Joint Operating Agreement" Southeast Geysers Effluent Pipeline Project on December 20, 2001 to recognize that Calpine had acquired the geothermal interests of PG&E and Unocal at The Geysers and therefore owned a 2/3 interest in all of the Steam Suppliers Facilities of the Project, to recognize that NCPA had entered into an agreement with Lake County Sanitation District to fund Basin 2000 Facilities to deliver additional effluent to the Project, and to provide how the Project Water was to be distributed among other issues; and

WHEREAS, the Parties entered into the "Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project", also referred to as Second Amendment and Restatement of the Agreement, ("Agreement") on September 18, 2003 to amend and restate certain terms and conditions relating to the Parties' participation in the Project, re-allocate the Parties' rights to the Project Water, and agree that each Parties' share of the monthly electricity costs needed to pump the Project Water would be equal to its percentage of the Project Water actually received for that month; and

WHEREAS, the Parties entered into a Third Amendment to the Agreement on November 7, 2007, regarding the solar array facilities owned by NCPA, referred to as the Solar Pumps Project, and its installation, operation, and maintenance; and

WHEREAS, Section 5.1.2 of the Agreement states that "[t]he Party required to supply the power to operate the three Bear Canyon Pump Stations in order to deliver the Project Water shall be established from time to time by the Parties", Section 6.5 of the Agreement states that "[e]ach Party's share of the pumping power costs shall be equal to its percentage of Project Water actually received for that month", and Exhibit A of the Agreement ("Exhibit A") identified the Parties' agreed-upon statement of the value of the electricity that NCPA would provide to pump the Project Water, specifically that NCPA would provide all electricity to operate the three Bear Canyon Pump Stations at a set price for the period April 01, 2003 through December 31, 2006; and

WHEREAS, the Parties agreed by letters dated December 20, 2006 to amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

WHEREAS, the Parties agreed by letter dated June 26, 2008 to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

WHEREAS, the Parties agreed by letter dated June 1, 2009 ("2009 Letter Agreement") to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and also to extend the term of Exhibit A for an additional 36 months; and

WHEREAS, the Parties agreed by letter dated October 28, 2010, to further amend Exhibit A regarding calculation of the Pumping Power to be supplied to the Bear Canyon Pump Stations; and

WHEREAS, between 2012 and the present, the Parties have agreed upon their relative responsibility for the electricity costs needed to operate the Bear Canyon Pump Stations in connection

with the yearly budgeting process for Project operations and maintenance ("O&M") expenses, and have each year executed written agreements approving the Project's O&M budget (which includes line items for electricity costs for the Bear Canyon Pump Stations as well as the Calpine Share (as defined below)); and

WHEREAS, the Parties entered into an Amendment to the Agreement on March 2, 2018, requiring that NCPA provide the entire power supply for the Bear Canyon Pump Stations, except in outage situations, and Calpine would compensate NCPA for its share of the electricity costs at the agreed upon price stated therein, for a two-year term; and

WHEREAS, the Parties entered into a further Amendment to the Agreement on February 1, 2021 adding clarifying language to describe the parties' agreement with respect to the supply of power to the Bear Canyon Pump Stations, and extending the term of Exhibit A of the agreement to January 28, 2023; and

WHEREAS, the Parties wish to further revise the terms of Exhibit A to the Agreement, which extends the term of the agreement through September 17, 2028, to coincide with the current expiration date of the Steam Suppliers Joint Operating Agreement; and

WHEREAS, Geysers Power Company, LLC is an indirect wholly owned subsidiary of Calpine Corporation, founded in 1999, and the owner of 13 Geysers geothermal power plants and related assets, including the Southeast Geysers Effluent Pipeline; and

WHERES, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore no 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 delegates authority to the NCPA General Manager or his designee to enter into the 2023 Amendment to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project (SEGEP) between NCPA and Geysers Power Company, LLC, extending the term of Exhibit A of the Agreement through September 17, 2028, with any non-substantial changes recommended and approved by NCPA General Counsel, for use at NCPA's Geothermal facility.

PASSED, ADOPTED and APPROVED this _		day of	, 2023 by the following	
vote on roll call:				
	Vote	<u>Abstained</u>	<u>Absent</u>	
Alameda				
San Francisco BART				
Biggs				
Gridley				
Healdsburg				
Lodi				
Lompoc				
Palo Alto				
Port of Oakland				
Redding				
Roseville				
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Shasta Lake				
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CHAIR	ATT	EST: ASSIST	ANT SECRETARY	

STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT

Among

Northern California Power Agency Calpine Geysers Company, L. P. Union Oil Company of California NEC Acquisition Company Thermal Power Company

7

July, 1995

GS-AGY-1995-001

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STEAM SUPPLIERS JOINT OPERATING AGREEMENT

THIS STEAM SUPPLIERS JOINT OPERATING AGREEMENT (Agreement), is entered into this <u>25th</u> day of <u>July</u>, 1995, by and between NORTHERN CALIFORNIA POWER AGENCY ("NCPA), UNION OIL COMPANY OF CALIFORNIA (Union Oil), NEC ACQUISITION COMPANY (NEC) and THERMAL POWER COMPANY (Thermal) (collectively herein "U-N-T"), and CALPINE GEYSERS COMPANY ("CGC"), referred to herein collectively as the "Parties".

RECITALS

WHEREAS, the Parties and Lake County Sanitation District (IACOSAN), by separate agreement intend to fund and construct a pipeline which will be known as the Southeast Geysers Effluent Pipeline Project (Project), to run from Clear Lake and the Southeast Regional and Middletown Treatment Plants to The Geysers Terminus, and which will deliver Effluent and Makeup Water (as defined in said agreement) for injection into The Geysers geothermal reservoir; and

WHEREAS, the Parties and LACOSAN, by separate agreement have provided for the operation of that portion of the Project which commences at Clear Lake and terminates at the Point-of-Delivery; and

WHEREAS, the Parties desire to enter into this Agreement to establish and provide for certain terms and conditions relating to their participation in and responsibility for the operation of that portion of the Project which commences at the Point-of-Delivery and terminates at The Geysers Terminus.

NOW THEREFORE, in consideration of the premises and the mutual covenants contained herein, the Parties hereto agree as follows:

1. DEFINITIONS

1.1 "Gross negligence" shall mean the want of even scant care or an extreme departure from the ordinary standard of conduct.

1.2 "Operation and Maintenance Work" shall mean all labor, services, and material required to operate the Steam Suppliers Facilities in compliance with their design specifications and prudent industry practices, and to maintain Steam Suppliers Facilities in good working order, and to monitor and mitigate any impact on the environment, in accordance with Mitigation Monitoring and Operation Plan adopted by the County of Lake on September. 20, 1994.

1.3 "Point-of-Delivery" shall mean the intake side of the pump station to be located near the intersection of Bear Canyon Road and Highway 175. The exact location and design of the Point-of-Delivery shall be agreed upon in writing by the Parties.

1.4 "Project Water" shall mean that water which is delivered to the Parties by LACOSAN at the Point-of-Delivery pursuant to that certain Joint Operating Agreement for the Southeast Geysers Effluent Pipeline Project.

1.5 "Steam Suppliers Facilities" shall mean the pumps, pipeline, instrumentation and other property utilized directly in connection with transporting Project Water from the Point-of-Delivery to The Geysers Terminus.

1.6 "The Geysers Terminus" shall mean that location known as NCPA's "C" Pad, located in the northeast corner of Section 3, Township 10 North, Range **8** West, MDB&M in The Geysers field.

2. EFFECTIVE DATE

2.1 This Agreement shall be effective and binding when it has been duly executed by all Parties.

3. TERM

3.1 The term of this Agreement shall be for a period of twenty-five (25) years from the effective date hereof, unless this Agreement is sooner terminated pursuant to Section 15. If upon expiration of said term, the Parties elect to continue operations, the Parties agree to extend this Agreement for a term of not **less** than five (5) years.

4. OWNERSHIP INTERESTS

4.1 The Parties acknowledge, stipulate and agree that, for all purposes of this Agreement, the respective ownership interests of the Parties to this Agreement are:

<u>Party</u>	<u>Interes</u> t
NCPA	One-Third (1/3)
U-N-T	One-Third (1/3)
CGC	One-Third (1/3)

For all purposes of this Agreement, unless specifically changed by agreement of the Paries, (i) all Steam Suppliers Facilities shall be owned by the Parties and, all costs and liabilities incurred in operations hereunder shall be borne and paid in the percentages set forth above in the column captioned "Interest"; and (ii) all Project Water delivered by IACOSAN to the Point-of-Delivery shall also be owned by the Parties in the percentages set forth above in the column captioned "Interest".

4.2 The Parties agree that though Union Oil, NEC and Thermal have each executed this Agreement, they shall jointly exercise all rights vested in U-N-T by this

Agreement but shall be severally liable for the performance of U-N-T's obligations to the other Parties to this Agreement to the extent, but only to the extent, that this Agreement provides that U-N-T is obligated to the other Parties. Union Oil shall be separately liable for fifty percent (50%) of U-N-T's obligations hereunder, and NEC and Thermal shall each be separately liable for twenty-five percent (25%) of U-N-T's obligations. This Section 4.2 shall take precedence over all other provisions of this Agreement that relate to the rights and obligations of the Parties and the relationships among them.

4.3 Union Oil hereby guarantees the performance of NEC's obligations under this agreement to the extent, but only to the extent, that NEC is obligated hereunder.

5. OPERATIONS AND MAINTENANCE

5.1 Operating Committee

5.1.1 Creation and Composition. An Operating Committee is hereby created consisting of one (1) member appointed by each Party to this Agreement designating in writing its respective representative and that representative's address to the other Parties. Such representatives may be changed from time to time in like manner. Such Committee shall meet in Santa Rosa, California, or at such other place as may be mutually agreed upon at the request of any member on ten (10) days' written notice, unless such notice is waived, for the purpose of reviewing operations and information pertaining to the progress of operations, and directing Operator with regard to operations hereunder. Operator or the member calling the meeting shall present an agenda together with the notice of such meeting. Relevant additional matters may be considered at the meeting but may not be approved until adequate notice is given to all members of the Operating Committee. Operator will keep the Operating Committee with all reports and information upon request.

5.1.2 Decisions of the Operating Committee. The Operating Committee shall approve the annual budgets authorized under this Agreement, and may approve any Authority for Expenditure as defined in Section **5.2.8**. No action shall be taken by the Operating committee unless unanimous approval has been given by all voting members. Absent members may vote for agenda items by telefax or by mail addressed to Operator.

5.1.3 Voting Interests. Each member's voting interest shall be equal to the Interest of the Party as specified in Section 4.1.

5.1.4 Additional Parties. If a Party assigns its interest under this Agreement to another person or entity pursuant to Section 14, such assignee shall appoint a member to the Operating Committee.

5.1.5 Telephone Meetings. Any provision in this Section 5 to the contrary notwithstanding, meetings of the Operating Committee may be held by telephone if all members agree. If any meeting of the Operating Committee is held by telephone, all action and votes taken at such meeting shall be immediately confirmed in writing.

5.2 Operator

5.2.1 Designation of Operator. NCPA is hereby designated Operator of the Steam Suppliers Facilities and in such capacity shall have the right to conduct and manage the Steam Suppliers Facilities and Project Water for the account of the Parties hereto, subject, however, to the instructions of the Operating Committee and the provisions of this Agreement.

5.2.2 Operator's Performance. The Operator shall exercise its judgement and discretion in good faith and in accordance with the terms hereof. The Operator shall act in accordance with generally accepted engineering practices and will not violate the decisions of the Operating Committee. The Parties shall share all costs of Operator's action under this Agreement on the basis of the percentage interests set forth in Section 4.1 above, except for costs arising out of the gross negligence or wilful misconduct of the Operator.

5.2.3 Operator's Employees. The number of employees, their selection, the hours of labor and the compensation for services performed shall be determined by Operator. All such employees shall at all times remain the employees of Operator.

5.2.4 Liens and Encumbrances. Operator shall endeavor to keep the Steam Suppliers Facilities free and clear of any liens and encumbrances occasioned by the operations hereunder, provided, however that if any lien or encumbrance should attach, Operator shall promptly give notice of such lien or encumbrance to the other Parties.

5.2.5 Records. Operator shall keep correct books, accounts and records of all operations at Operator's Geysers office.

5.2.6 Reports. Operator shall furnish to the Parties such reports as the Operating Committee may require Operator to prepare from time to time, and shall no less frequently than quarterly furnish unaudited reports of operating costs and maintenance, and Project Water disbursement.

5.2.7 Budgets. Operator shall prepare and submit to the Operating Committee for approval a budget of estimated expenses for each fiscal year no later than the first day of May of each year. The fiscal year shall begin on July **1**. Each budget shall separately identify any and all planned capital expenditures. Each budget shall enumerate the estimates by quarterly periods, describing each item in reasonable detail. Budgets shall be estimates only and may be amended **as** necessary by the Operating Committee. **A** copy of each budget and amended budget shall promptly be furnished to each Party.

5.2.8 Authority for Expenditure. An Authority for Expenditure ("AFE") is a document authorizing Operator *to* make expenditures for the purposes stated in the AFE. An AFE shall be submitted by Operator for approval by the Parties for:

- 1. All unbudgeted capital expenditures.
- 2. Budgeted single capital expenditures in excess of \$5,000.00.
- 3. Unbudgeted expenses in excess of \$5,000.00.

The AFE shall be prepared by Operator and submitted to each Party. An AFE must have unanimous approval of the Parties in order *to* be effective. Each Party shall have thirty (30) days in which to approve or not to approve the expenditure. A Party not responding within thirty (30) days will be deemed *to* have voted to approve the expenditure. If an AFE becomes effective, each Party is liable for any expenditures incurred in connection with the purposes stated in the AFE to the extent of its interest as specified in Section 4.1. An informational AFE may be submitted by Operator for expenditures not requiring approval.

5.2.9 Emergency Expenditures. Notwithstandingany other provision of this Agreement to the contrary, in the event of an emergency, as determined in good faith by Operator, the Operator may immediately make or incur such expenditures as in its opinion are required to deal with the emergency and each Party shall be liable for said expenditures on the basis of the percentage interests set forth in Section 4.1 above. Operator shall report to the Operating Committee as promptly as possible the nature of the emergency and the action taken.

5.2.10 Resignation or Removal of Operator. Operator may resign at any time by giving written notice thereof to the other Parties. If Operator terminates its legal existence, no longer holds an interest in the Steam Suppliers Facilities or if Operator becomes insolvent, bankrupt or is placed in receivership, it shall be deemed to have been removed without any action by the other Parties except the selection of a successor. Such resignation or removal shall not become effective until 7:00 o'clock A.M. on the first day of the calendar month following the expiration of ninety (90) days after the giving of notice of resignation by Operator, or removal or bankruptcy, insolvency or receivership unless a successor Operator has been selected and assumes the duties of Operator at an earlier date. Operator, after effective date of resignation or removal, shall be bound by the terms hereof as a non-operating Party. A change of corporate name or structure of Operator or transfer of Operator's interest to any single member entity or multiple member entity, parent or successor corporation or subsidiary shall not be the basis for removal of Operator.

5.2.11 Notwithstanding anything contained in Section 25.1 below, if a dispute between the Parties arises because Parties holding a majority interest believe that the Operator has failed or refused to carry out its duties hereunder or is no longer capable of serving as operator, the dispute shall be referred to arbitration according to the procedure specified in subsection 5.2.12 below. If it is determined by the arbitrator that Operator has failed or refused to carry out its duties hereunder or *is* no longer capable of operating as operator, the Parties shall immediately select a successor Operator by majority vote.

5.2.12 Arbitration: Notwithstanding anything contained in Section 16 below to the contrary, any dispute under Section 5.2.11 above shall be directly submitted to arbitration and a decision rendered within sixty (60) days of the allegation of the Parties holding a majority interest that the Operator has failed or refused to carry out its duties hereunder or is no longer capable of serving as operator.

If the Parties cannot agree on an arbitrator, they shall select the arbitrator from a list of three arbitrators experienced in complex disputes relating to electric utility operations to be submitted to the Parties by the American Association of Arbitrators. The Operator and the other Parties shall each be entitled to strike one name from the list and the remaining name on the list shall be the arbitrator. The Operator and the other Parties shall draw lots to determine the order in which they strike the names. The arbitration procedures shall be those set forth in Sections 16.4, 16.5 and 16.6 of this Agreement except that the Arbitrator may modify those procedures to the extent necessary to enable a decision to be rendered within the sixty (60) day period provided for in this Section.

5.2.13 Selection of Successor Operator. Upon the resignation or removal of Operator, a successor Operator shall be selected by the Parties. The successor Operator shall be selected by the Parties owning an interest in the Steam Suppliers Facilities at the time such successor Operator is selected. The successor Operator shall be selected by the affirmative vote of *two* (2) or more Parties owning a majority interest.

5.3 Delivery and Acceptance of Project Water

5.3.1 Commencement. Operator shall commence delivery and the Parties shall receive and accept Project Water transported by the Steam Suppliers Facilities to The Geysers Terminus or other mutually accepted location(s), no later than thirty (30) days following completion of the Project construction.

5.3.2 Division of Project Water. Operator shall deliver the available Project Water in equal one-third (1/3) amounts to each **c** the Parties on a continuous basis, consistent, however, with the specific operating criteria established from time to time by the Operating Committee.

5.3.3 Metering of Project Water. Operator shall operate and maintain in accurate working order metering devices properly equipped and located for the measurement of the Project Water to be delivered hereunder. All Parties shall have access to inspect and test such equipment at all reasonable times, but readings, calibrations, adjustments, repair and other maintenance thereof shall be conducted by Operator.

5.4 Suspension of Operations

5.4.1 The Parties acknowledge that the injection of Project Water as a means of augmenting The Geysers geothermal reservoir is a process which may or may not achieve the desired results, or which may have effects beyond the contemplation of the Parties. Therefore, the Parties hereto may individually or jointly suspend delivery or acceptance of Project Water if at any time during the term of this Agreement a State or Federal agency concludes that the injection of Project Water is causing significant adverse health, safety or environmental effect, or if a Party concludes that the operations are causing interference with its steam production or having adverse effects upon its geothermal facilities, or if contractual or economic conditions make continued operations impractical. Any Party may continue to suspend operations hereunder until such time as the cause can be remedied.

6. ALLOCATION AND PAYMENT OF COSTS

6.1 General Rules. Except as otherwise provided herein, all costs and expenses incurred pursuant to the terms and provisions of this Agreement and which relate directly to the Steam Suppliers Facilities shall be shared in proportion to the interest of each Party, as specified in Section 4.1 herein.

6.2 Payment. Operator shall endeavor to bill non-operators on or before the last day of each month for their proportionate share of the actual Operation and Maintenance Work costs for the preceding month. Such bills will be accompanied by statements which identify all charges and credits. Any unusual charges or credits shall be separately identified and fully described in detail. Each non-operator shall pay its proportion of all bills within fifteen (15) days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the prime rate quoted by the Bank of America NT & SA plus one and one-half percent $(1 \ 1/2\%)$ per annum or the maximum contract rate permitted by the applicable usury laws of the state of California,

whichever is the lesser, plus attorney's fees, court costs, and other costs incurred in connection with the collection of unpaid amounts.

6.3 Advances and Payments by Non-Operators. Operator may require the non operators to advance their share of estimated cash outlay for the succeeding month's operation. Operator shall adjust each monthly billing to reflect advances received from the non-operators.

6.4 Adjustments. Payment of any such bills shall not prejudice the right of any non-operator to protest or question the correctness thereof; provided, however, all bills and statements rendered to non-operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four **(24)** months following the end of any such calendar year, unless within the said twenty-four **(24)** month period a non-operator takes written exception thereto and makes claim on Operator for adjustment. **No** adjustment favorable to Operator shall be made unless it is made within the prescribed period.

6.5 Special Allocations. The electricity costs for pumping the Project water shall be allocated separately from other Operations and Maintenance Work costs for each month. Each Party's share of the pumping power costs shall be equal to its percentage of Project Water actually received for that month.

6.5.1 CGC, in accordance with an agreement with Pacific Gas & Electric Company (PG&E) will provide the electricity for pumping power for the Project Water at an annual price calculated as provided in Exhibit "A, **so** long as such price is not higher than the price of power that is otherwise available to the Project.

6.5.2 CGC's monthly share of Operation and Maintenance Work expenses will include, as appropriate, a credit or debit for the value of such power calculated by multiplying the total kilowatts hours of power used by the value calculated as provided in Exhibit "A.

6.5.3 Operations and Maintenance Work costs other than pumping power costs shall continue to be allocated based on each Party's interest as specified in Section **4.1**.

6.6 Commingling of Funds. No funds received by Operator under this Agreement need be segregated or maintained by it as a separate fund, but may be commingled with its own funds.

6.7 Audits. A non-operator, upon notice in writing to Operator and all other nonoperators, shall have the right to audit Operator's accounts and records relating to this project for any calendar year within the twenty-four **(24)** month period following the end of such calendar year; provided, however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for above. Where there are two or more non-operators, the non-operators shall make every reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator. The audits shall not be conducted more than once a year without prior approval of the Operator who is subject to such audit.

7. ABANDONMENT AND RESTORATION

7.1 Upon final termination of this Agreement, each Party shall be responsible for a share of the costs and expenses involved in removing or decommissioning the Steam Suppliers Facilities, less any salvage value. The Operator shall calculate each Party's percentage share of such abandonment costs based on the total amount of water taken by each Party as a percent of total Project Water delivered by LACOSAN during the term of this Agreement.

8. RIGHTS RESERVED BY ALL PARTIES

8.1 Access to Project. Each Party shall at all times during the term hereof make reasonable efforts to provide for the other Parties to have reasonable access to the Steam Suppliers Facilities, including facilities under construction, and to all data and documents concerning current Operation and Maintenance Work affecting any Steam Suppliers Facilities.

8.2 Right to Inspect Books and Records. The Parties shall at all reasonable times have the right to inspect Operator's books and accounts relating to operations hereunder.

8.3 Right to Audit. Non-operating Parties shall have the right to audit Operator's books and accounts pertaining to operations in accordance with the provisions of Section 6.7.

9. TAXES

9.1 Property Taxes. Each Party shall be responsible for payment of the real and personal property taxes assessed upon its interest in the property used or held by Operator for operations hereunder. If the property should be assessed as a unit, the Operator shall prepare and file all property tax returns and shall bill the Parties on the basis of their respective shares of the portion of the property that is subject to taxation. Such billings shall be paid at least 10 days prior to the dates on which the tax payments are due. At the request of any Party, the Operating Committee shall take responsibility for conducting discussions with the proper taxing authorities relating to the assessment and taxation of such property and shall assist in resolving disputes over property tax assessments.

9.2 Individual Withdrawal. Should any Party withdraw from this Agreement pursuant to Section 13, Individual Withdrawal, such Party will be required to pay a

prorated share of property taxes attributable to its interest for the tax year in which the Party withdraws from this Agreement. Said withdrawing Party will not be required to pay property taxes for the remaining duration of this Agreement.

9.3 Other Taxes. Each Party shall be individually responsible for any taxes levied or assessed on potential or actual generation increases or reduction of decline rates due to the injection of Project Water into each Party's respective geothermal property.

10. INSURANCE

10.1 Worker's Compensation. Operator shall procure and maintain, for the benefit of all Parties, Worker's Compensation Insurance required by the State of California. If it qualifies, Operator may elect to be a self-insurer with respect to Worker's Compensation Insurance. In either case Operator may charge each Party its share, as specified in Section 4.1, of the actual cost of the premiums for such insurance. Each Party's share shall be paid as set forth in Section 6.

10.2 Other Insurance. Operator shall procure and maintain such other insurance for the benefit of the Parties as may be required by the Operating Committee. The net premiums for such insurance shall be charged to each Party based on its interest as specified in Section 4.1 and paid pursuant to the terms in Section 6.

11. LIABILITY AND INDEMNIFICATION

11.1 Except for the failure to make monetary payments as required by this Agreement, and except for damage resulting from a breach of this Agreement, willful misconduct, gross negligence, conscious disregard or breach of fiduciary obligation, (a) no Party, nor any of its members, directors, members of its governing body, officers or employees shall be liable to any other Party for any loss or damage resulting from, or in any way related to, the performance or nonperformance of its obligations under this

Agreement, and (b) any and all liability to Third Parties and any liability arising from the consequence of any violation or alleged violation of permit, statutes, ordinances, orders, rules or regulations of any governmental entity arising out of the performance of this Agreement shall be shared among the Parties in proportion to the ownership interest set forth in Section 4.1 of this Agreement.

12. OBLIGATIONS AND RELATIONSHIPS OF THE PARTIES

12.1 Each Party shall use its best efforts and work diligently, in good faith, and in a timely manner, to carry out the duties and obligations imposed by this Agreement.

12.2 Individual Liability. The duties, obligations and liabilities of the Parties shall be several and not joint or collective and nothing contained herein is intended to create a partnership, joint venture, association, or trust among the Parties. Each Party shall be responsible only for its obligations as specified herein, and shall be liable only for its proportionate share of the costs of operating the Steam Suppliers Facilities as defined in this Agreement.

12.3 Except as expressly provided for in this Agreement or other Project agreements, no Party shall be the agent of or have the right or power to bind another Party.

13. INDIVIDUAL WITHDRAWAL

13.1 Except as otherwise provided in Section 13.2 below, after the expiration of three (3) years from the commencement of operations hereunder, any Steam Supplier shall have the right, upon *two* (2) years written notice, to withdraw from this Agreement by assigning and transferring in writing all its right, title and interest in the Project to the remaining Steam **Supplier(s)** who do not then wish to withdraw.

13.2 During the first four (4) years of operations hereunder, U-N-T shall have the right, upon one year written notice, to withdraw from this Agreement by assigning and transferring in writing, all of its rights, title and interest in the Project to the other Steam Suppliers if (i) PG&E or its successor in interest delivers notice to U-N-T that either Unit 18 or Unit 20 will be retired or decommissioned during or prior to the first four (4) years of operation hereunder, or if (ii) PG&E or its successor in interest curtails generation from the U-N-T leaseholdings to a level where U-N-T's continued participation in the Project is uneconomic, as determined by U-N-T. After the expiration of four (4) years from the commencement of operations hereunder, U-N-T will be subject to Section 13.1.

13.3 Any assignment made as a result of a withdrawal by a Steam Supplier pursuant to this Section 13 shall not relieve the withdrawing Party from any obligation or liability incurred or created prior to the date that the notice is received, including but not limited to the obligations set forth in Section 7.1 of this Agreement, and provided further that any and all interests created out of such withdrawing Party's interest shall from and after the date of such assignment be subject to the terms of this Agreement and shall be chargeable with the pro rata portion of all expenses thereunder in the same manner as if such interest were a working interest. The right of a withdrawing Party to any benefits subsequently accruing hereunder shall cease upon the effective date of the withdrawal. The withdrawing Party shall be relieved of all obligations and liabilities which arise subsequent to the effective date of the withdrawal.

14. ASSIGNMENTS

14.1 No Party shall have the right to assign, either in whole or in part, any of the rights, duties or obligations related or imposed under this Agreement without the prior written consent of the other Parties, except to another Party to this Agreement or to a subsidiary, affiliate or any other party succeeding to all or substantially all of the Geysers geothermal interests of that Party provided that such subsidiary, affiliate or succeeding party assumes the assigning Party's obligations hereunder in writing. No sale or

assignment as among the Parties shall relieve the assigning Party of any duties or obligations which accrued prior to the effective date and time of such sale or assignment.

15. TERMINATION

The Parties may jointly terminate this Agreement at any time during the term hereof by the unanimous written consent of the Parties.

16. DISPUTE RESOLUTION

16.1 <u>Mediation</u>. If a dispute arises from or relates to this Agreement, or breach thereof, and if such dispute cannot be settled through negotiation, the Parties agree to first try in good faith to settle the dispute by mediation under the Commercial Mediation Rules of the American Arbitration Association.

16.2 <u>Arbitration</u> - If the Parties are unable to resolve the dispute within thirty (30) days after service of the mediation request, any Party may serve on the other Parties a demand for arbitration. Any dispute shall be subject to arbitration under the Commercial Arbitration Rules of the **AAA** as amended and supplemented by the terms of this Section. The demand shall set forth the nature of the dispute, the amount involved, the remedy sought, and the locale requested for the arbitration hearing (the "Hearing"). Any demand or a counterclaim by any other Party shall be served within twenty (20) days after service of the demand for arbitration, and shall contain the same information required by this Section 16.

16.3 <u>Selection of Arbitrator</u> - If the Parties cannot agree on an arbitrator, they shall select the arbitrator from a list of 7 arbitrators experienced in complex engineering, construction or contract disputes, to be submitted to the Parties by the **AAA**. Each Party shall be entitled to strike two names from such list and the last name shall be the arbitrator. The Parties shall draw lots to determine the order in which they strike the

names. Any Party may request the AAA to disqualify an arbitrator for bias, personal or financial interest, or relationship with any Party, pursuant to the rules of the AAA.

16.4 <u>Discovery</u> - Each Party shall have the right to limited discovery from the other Party or Parties as follows: (a) each party shall be entitled to demand the production, no later than fifteen (15) days before the Hearing, of any documents the other Party intends to rely upon at the Hearing for its case-in-chief, and any documents which refer or relate to the matters at issue in the Arbitration; (b) any Party may demand production, no later than ten (10) days before the Hearing, of the list of witnesses the other Party intends to call at the Hearing for its case-in-chief, together with a brief description of the testimony of each witness; and (c) either Party shall be entitled to take a total of three (3) days of depositions of the other Party's employees or other witnesses, which may be extended only for good cause. Any dispute over discovery shall be submitted to the arbitrator for decision.

16.5 <u>Pre-hearina Conference</u> - The arbitrator shall convene a pre-hearing conference at least ten (10) days before the Hearing to determine procedures for the Hearing, including evidence to be submitted, evidentiary objections, length of the Hearing and other matters.

16.6 <u>Hearina Location and Time</u> • The Hearing shall begin not later than ninety (90) days after service of the demand or cross-demand for arbitration, whichever is later. The Hearing shall be held at a location mutually agreed by the Parties. If the Parties are unable to agree Santa Rosa shall be the hearing locale. The Hearing shall proceed under the rules and procedures of the AAA or as mutually agreed by the Parties.

16.7 <u>Decision</u> • The arbitrator's decision shall be rendered within thirty (30) days of the submission of all evidence. The decision shall be final and binding on the Parties and their successors, and may be confirmed in any competent Court having jurisdiction.

16.8 <u>Interest</u> - The prevailing Party shall be entitled to interest, compounded monthly, on the net amount of the award, at the then-current prime lending interest rate used by the Bank of America, plus three (3) percentage points. The interest shall accrue from the date the Arbitration request under Section 16.2 "Arbitration" is served through the date the award is paid.

16.9 <u>Confidentiality</u>- Notwithstandinganything to the contrary contained in this Section 16, the Parties shall execute an agreement with the mediator or the arbitrator, which shall (a) require the mediator or the arbitrator to treat any information conveyed to them as confidential, and prohibit disclosure of any confidential or trade secret information; (b) make California Evidence Code Section **11**52.5 applicable to the mediation or arbitration; and (c) for the arbitration, prohibit any <u>ex parte</u> contacts with the arbitrator without the explicit consent of the other parties, unless the arbitrator initiates the contacts and they are made part of the record. Any information presented at the mediation or arbitration shall be neither admissible nor discoverable in any regulatory proceeding or in any action, as provided in Section **11**52.5 of the Evidence Code.

16.10 <u>Party Representative</u> - Each Party shall have in attendance throughout the mediation and arbitration proceedings a designated representative who has : (a) sufficient authority to negotiate and recommend compromise within the full monetary range of the dispute; and (b) little or no direct involvement in the dispute.

16.11 <u>Costs</u> - The prevailing Party or Parties shall be entitled to their respective costs incurred in connection with the procedures described in this Section 16, pursuant to Section 26 below.

16.12 <u>Statute of Limitations</u> - The service of a arbitration request under Section 16.2 "Negotiation" shall suspend the running of any statute of limitations applicable to the dispute for which the negotiation request is made. The Parties shall jointly take any action required in order to effectuate the suspension.

16.13 <u>Exclusivity</u> - The procedures specified in this Section 16 shall be the sole and exclusive procedures for the resolution of disputes. However, a Party may seek a preliminary injunction or other preliminary judicial relief in order to avoid great or irreparable injury, or waste to the extent otherwise permitted by law. Despite such action, the Parties shall continue to participate in good faith in the procedures specified in this Section 16.

17. FORCE MAJEURE

17.1 If as result d force majeure, which means acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, wars, insurrections, riots, epidemics, landslides, earthquake, severe weather conditions, fires, storms, floods, washouts, or acts of restraint by any governmental agency or any other cause whether similar or dissimilar to the foregoing enumerated causes not within the control of the Party or Parties claiming suspension, any Party is unable to carry out its obligations under this Agreement wholly or in part, such Party or Parties shall give prompt written notice to the other Parties of the force majeure with reasonably full particulars concerning it. Thereupon, except for obligations to make payment of money, the obligation of the Party or Parties giving the notice, so far as it is affected by the force majeure, shall be suspended to the extent of and during, but no longer than, the continuance of the force majeure; provided the non-performing Party promptly and persistently pursues all the alternatives available to remedy its ability to perform and the non-performing Party resumes performance of its obligations as soon as possible. The other Party or Parties shall also be relieved of its obligations to the extent such Party or Parties cannot perform due to such event of force majeure.

18. COMPLIANCE WITH LAWS

18.1 The Parties shall comply with all applicable federal, state, and local laws and the rules and regulations of any federal, state, local or other government agency having jurisdiction over the activities and operations conducted pursuant to this Agreement.

19. NOTICES

19.1 Any and all notices or other communications required or permitted by this Agreement, or by the law, to be delivered to, served on, or given to any Party to this Agreement shall be in writing and shall be deemed properly delivered when personally delivered to the Party to whom it is directed, or in lieu of such personal service, when deposited in the United States mail, first class postage prepaid, addressed to the parties as follows:

<u>Party</u>	Address
NCPA	P.O. Box 663
	Middletown, CA 95461
	Attn. Steam Field Superintendent
GGC	1160 North Dutton, #200
	P.O.Box 11279
	Santa Rosa, CA 95406
	Attn. Operations Manager, Santa Rosa
U-N-T	3576 Unocal Place
	Santa Rosa, Ca 95403
	Attn: General Manager

19.2 Any Party hereto may change its address for the purpose of this Section 19 by giving written notice of such change in the manner prescribed by this Section 19 to the other Parties to this Agreement.

20. ENTIRE AGREEMENT

20.1 This document represents and contains the entire Agreement and understanding between the Parties with respect to the subject matter hereof and supersedes any and all prior oral and written agreements and understandings, except for the Project Construction Financing Agreement and the Joint Operating Agreement between IACOSAN, NGPA, GGC, and U-N-T. No promises, agreements, or warranties additional to this Agreement shall be deemed to be a part hereof, nor will any alteration, amendment or modification hereto be effective unless confirmed in writing by all Parties or their duly authorized agents.

21. SEVERABILITY

21.1 In the event that any term, covenant, or condition of this Agreement or the application of any such term, covenant, or condition shall be held invalid as to any person, entity, or circumstance by any court or agency having jurisdiction, such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby but shall remain in full force and effect unless a court or agency having jurisdiction holds that such provisions are not severable from the other provisions of this Agreement.

22. WAIVERS AND AMENDMENTS

22.1 No waiver shall be deemed to have been made by any Party of any of its rights under this Agreement unless the same shall be in writing signed on its behalf by a person authorized to make such a waiver. Any such waiver shall constitute a waiver only with respect to the specific matter described in such writing and shall in no way impair the rights of the Party granting such waiver in any other respect or at any other time. Further, this Agreement shall not be amended or modified except by an instrument in writing signed by the Party against whom enforcement is sought.

23. NO DEDICATION OF FACILITY

23.1 Any undertaking by a Party under any provision of this Agreement is rendered strictly as an accommodation and shall not constitute the dedication of such Party's facilities to the public, to any other Party, or to any Third Party.

24. THIRD PARTY BENEFICIARIES

24.1 None of the promises, rights, or obligations contained in this Agreement shall ensure to the benefit of any person or entity not a Party to this Agreement, other than the rights of members of NCPA, which derive from their membership in NCPA.

25. DEFAULT

25.1 If any Party to this Agreement defaults in respect to any of its obligations under this Agreement, any of the non-defaulting Parties shall notify the defaulting Party in writing, setting out in what respects the non-defaulting Party deems the defaulting Party to be in such default. If within thirty (30) days after receipt of such notice, the defaulting Party has corrected the default alleged by the non-defaulting Party, the defaulting Party shall not be deemed in default. Neither the service of said notice, nor the doing of acts by the defaulting Party aimed to correct any or all of the alleged defaults, shall be deemed an admission or presumption that the defaulting Party fails to correct all or any of the alleged defaults within the allowable time, the non-defaulting Party, may proceed in accordance with Section 16.

26. ATTORNEY'S FEES

26.1 If any action at law or in equity, including arbitration pursuant to Section 16 above, is necessary to enforce or interpret the terms of this Agreement, the prevailing Party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements,

in addition to any other relief to which such Party may be entitled, unless otherwise provided in this Agreement.

27. COUNTERPARTS

27.1 This Agreement may be executed in any number of counterparts and all such counterparts shall be deemed to constitute a single Agreement and the execution of one counterpart by any Party shall have the same force and effect as if such Party had signed all the other counterparts.

IN WITNESS WHEREOF, the Parties have executed this Agreement the day and year first above written.

NORTHERN CALIFORNIA POWER AGENCY By: Mnnmin UGUST 10, 1995 Date MICHAEL W. MCDONALD, General Manager CALPINE GEYSERS CORPORATION. LP COMPANY Date AUGUST 14, 1995 By: LARRY & KRUMLAND, VICE PRESIDENT UNION OIL COMPANY OF CALIFORNIA By: frich mus a the sten Date September 8, 1885 ANTHONY ъΤ. General manager, domestic geothermal operations NEC ACQUISITION COMPANY Bv: osten Date September 8, 1885 ATTORNEY IN FACT THERMAL POWER COMPANY Date B١ SEPTEMBER 6, 1995

LARRY'R. KRUMLAND, VICE PRESIDENT

CALPINE CORPORATION GUARANTY

In consideration for the execution of this Agreement by LACOSAN, NCPA, UNOCAL and NEC, CALPINE CORPORATION ("CALPINE) guarantees faithful and complete performance of this Agreement and any amendments thereto by THERMAL and CGC. CALPINE: also guarantees payment of all damages, costs and expenses for which either THERMAL or CGC may become liable with respect to this Agreement.

CALPINE waives all right to notice of nonperformace of this Agreement and to notice to THERMAL and CGC to perform.

Dated: AUGUST 14, 1995 , 1995

CALPINE CORPORATION By:

LARRY E. KRUMLAND VICE PRESIDENT

EXHIBIT A

Calculation of Pumping Power Value of Southeast Geysers Effluent Pipeline Project

The pumping power provided to the project be generated at PG&E Units 13 and 16. As such, the value of the pumping power provided to the Project by PG&E and Calpine during any calendar year is the sum of the following:

		1995 Price <u>mils/kwh</u>
1)	The price Calpine is paid annually by PG&E for steam delivered to PG&E Unit 13 and 16. This price is calculated as defined in the March 1973 Agreement for the Sale and Purchase of geothermal steat between PG&E and Calpine Corporation as a successor in interest to Signal Oil and Gas Company.	
2)	The price Calpine is paid annually by PG&E for effluent (condensate) disposal at Unit 13 and 16. This price is calculated as in 1) above.	.50
3)	A constant value of 12.5 mils/kwh for the life of the project.	<u>12.50</u>
	1995 PRICE	<u>25.07</u>

AMENDMENT NO. 1 TO STEAM SUPPLIERS JOINT OPERATING AGREEMENT

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This Amendment No. 1 to the Steam Suppliers Joint Operating Agreement is entered into this 20^{+h} day of <u>December</u>, 2001 by and between Northern California Power Agency ("NCPA") and Calpine Corporation ("Calpine"), referred to collectively as the "Parties."

RECITALS

WHEREAS, Calpine has acquired the geothermal interests of PG&E and Union Oil Company of California ("Unocal") at the Geysers steam field, located within Lake and Sonoma Counties; and has assumed all of Unocal's interest in this Agreement;

WHEREAS, NCPA and Calpine constitute the remaining Steam Suppliers;

WHEREAS, LACOSAN and NCPA intend to enter into Phase II of the Southeast Geysers Effluent Pipeline Project ("SEGEP") to increase the delivery rate of effluent and makeup water for injection into the Geysers geothermal reservoir;

WHEREAS, LACOSAN and the Parties, by separate agreement, have modified the Joint Operating Agreement Southeast Geysers Effluent Pipeline Project to provide for the operation and financing of the SEGEP Phase II Facilities and intend to modify the existing Steam Suppliers Joint Operating Agreement as provided herein;

WHEREAS, NCPA and Calpine intend to make all reasonable efforts, consistent with Project design, to develop the existing SEGEP facilities to achieve and maintain a delivery rate of 6,100 gpm prior to the start up of the Phase II facilities;

WHEREAS, the operation of the SEGEP Phase II Facilities will require changes in the manner that the Project Water delivered to The Geysers is distributed among the Parties, and the manner that Project Operations and Maintenance Work costs are to be shared among the Parties;

NOW THEREFORE, in consideration of the premises and mutual covenants contained herein, the Parties agree to modify the existing Steam Suppliers Joint Operating Agreement as follows:

1.3 Delete in its entirety and insert "Point-of-Delivery shall mean the intake side of the Pump Station located along Bear Canyon Road that is closest to Highway 175."

1.4 At the end of the sentence, insert "and Addendum No. 1 thereto."

1.5 At the end of the sentence, insert "except the SEGEP Phase II Facilities."

Add 1.7 "Basin 2000 Facilities" shall mean all facilities that will be used to supply and deliver the additional effluent from NWRWTP to the Project, including intake structures, the main pipeline, pump stations, and a new separate flow meter at the NWRWTP. The Basin 2000 Facilities are expected to supply the Project with a minimum of 1,700 gallons per minute (gpm) on average, subject to normal interruptions for maintenance.

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Add 1.8 "SEGEP Phase II Facilities" shall mean those upgrades to the existing SEGEP system necessary to increase the delivery rate of the Project to approximately 7,100 gpm. The upgrades are expected to include, but not necessarily be limited to, two new booster pump stations, three additional pumps at the existing pump stations within the Geysers portion of the SEGEP project, and a 21 KV transmission line.

Add 1.9 "Phase I Maximum Delivery Rate" (Phase I MDR) shall mean the maximum capacity of the Steam Suppliers Facilities, excluding the use of the additional SEGEP Phase II Facilities, to deliver Project Water to the Steam Suppliers, as determined from time to time. For the purposes of allocating Project Water and the Operation and Maintenance Work costs, the Phase I MDR shall not exceed 6,100 gpm.

Add 1.10 "Phase II Maximum Delivery Rate" (Phase II MDR) shall mean the maximum capacity of the Steam Suppliers Facilities, including the use of the additional SEGEP Phase II Facilities, to deliver Project Water to the Steam Suppliers, as determined at the startup of the SEGEP Phase II Facilities. For the purposes of allocating Project Water and the Operation and Maintenance Work costs, the Phase II MDR shall not exceed 7,100 gpm.

Add 1.11 "Melded Ownership Interest" (MOI) shall mean each Party's average ownership interest of the combined Steam Supplier and SEGEP Phase II Facilities, upon completion and startup of the SEGEP Phase II Facilities. Subject to the option contained in Section 4.4, Calpine's MOI shall be 2/3 of 6,100 gpm/7,100 gpm or 57.28% and NCPA's MOI shall be 42.72%, if the Phase II MDR is 7,100 gpm or greater. If the Phase II MDR is less than 7,100 gpm, Calpine's MOI shall instead be 2/3 of 6,100 gpm/Phase II MDR and NCPA's MOI shall be adjusted accordingly.

3.1. On line 2, after "the effective date" delete "hereof" and insert "of Addendum No. 1 to the Steam Suppliers Joint Operating Agreement."

4.1 Insert heading "Steam Supplier Facilities" Under the column heading "Party," delete "U-N-T" and "CGC" and insert "Calpine."

Under the column heading "Interest," delete "One-Third (1/3) relating to the "U-N-T" and "CGC" interests and insert "Two-Thirds (2/3)" to correspond to Calpine's interest.

Delete the "(i)" in the second paragraph and delete remainder of the paragraph starting with "(ii)".

Replace 4.2 with "SEGEP Phase II Facilities. Subject to the provisions contained in Section 4.4, NCPA shall have one hundred (100) percent ownership interest in the additional SEGEP Phase II pumping facilities located within the Geysers portion of the Project. All costs and liabilities incurred in the construction of these separate facilities shall be borne and paid for in accordance with the Parties respective ownership interests in these facilities, unless otherwise provided in Section 4.5."

Delete paragraph 4.3 and insert the following:

4.3 "Project Water.

3. _A

- 4.3.1 The Party or Parties owning the SEGEP Phase II Facilities as set forth in Section 4.2 shall also own all the Project Water delivered by LACOSAN to the Project by the Basin 2000 Facilities according to their percentage of ownership in the SEGEP Phase II Facilities.
- 4.3.2 Steam Suppliers shall own all of the other Project Water in the percentages set forth above in Section 4.1."

Add 4.4 For a period of up to one year following the initial operation of the SEGEP Phase II Facilities, Calpine shall have the right, but not the obligation, to acquire up to a maximum of one-third ownership interest in the SEGEP Phase II Facilities, by paying its desired proportional share of the cost to construct the SEGEP Phase II Facilities, including only that portion of the 21 KV transmission line costs to extend service from Bear Canyon Pump Station #1 to a new pump station near Middletown, by assuming its proportional liability for those facilities, and by paying its proportional share of NCPA's cash contribution toward the cost to construct the Basin 2000 Facilities.

Add 4.5 If the Phase I MDR is less than 6,100 gpm at the time of startup of the SEGEP Phase II Facilities, the Steam Suppliers shall have the option to pay according to their ownership interests defined in Section 4.1 for a percentage of the SEGEP Phase II construction costs, including only that potion of the 21 KV transmission line costs to extend service from Bear Canyon Pump Station #1 to a new pump station near Middletown. That percentage shall be calculated as the quantity of 6,100 gpm minus the Phase I MDR, divided by the difference between 7,100 gpm.and the Phase I MDR.

Add 5.1.6 The Operating Committee shall establish the specific procedures to determine and/or revise a numeric Phase I MDR, the Phase II MDR, and the rate that electricity is being consumed at each of the pump stations then in operation. The Operating Committee shall also determine the electricity consumption rate at the delivery rate of 6,100 gpm and at such other rates it decides. The adopted procedures shall be utilized within reason at any time, as requested by either Party to this Agreement.

5.2.11 At line 2, delete "Parties holding a majority interest" and insert "the Non-operator Party"

5.2.12 At line 3-4, delete "Parties holding a majority interest" and insert "the Non-operator Party"

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5.2.13 Delete entire paragraph and insert "Upon resignation or removal of Operator, a successor Operator shall be selected by unanimous vote of the Parties. In the event the Parties are unable to agree on a successor Operator, the Parties shall proceed in accordance with Section 16 of the Agreement.

5.3.2 Delete entire paragraph and insert "Operator shall deliver the available Project Water in amounts generally consistent with the Melded Ownership Interests of the Project facilities as specified in paragraph 1.11 herein, on a continuous basis, and in accordance with the specific operating interests established from time to time by the Operating Committee. However, during drought conditions when no Project Water is available for withdrawal from Clear Lake, the division and delivery of Project Water will be according to the respective ownership interests provided in Section 4.3, paragraphs 4.3.1 and 4.3.2."

6. Replace title with "ALLOCATION AND PAYMENT OF OPERATING COSTS"

6.1 Delete the remainder of the paragraph after "Steam Supplier Facilities" and substitute "and the SEGEP Phase II Facilities shall be shared in proportion to the Melded Ownership Interest of each Party, as specified in paragraph 1.11 herein."

Replace paragraph 6.5 with "Special Allocations. The electricity costs for pumping the Project Water shall be allocated separately from the other Operations and Maintenance costs for each month."

Replace paragraph 6.5.1 with "When the monthly average delivery rate is equal to or less than 6,100 gpm, that portion of the electricity costs not borne by LACOSAN shall be allocated between the Parties in proportion to the amount of Project Water each received.

Add 6.5.1.1 When the monthly average delivery rate is more than 6,100 gpm, and Calpine has not exercised its option provided in paragraph 4.4, the amount of Project Water actually received by Calpine, divided by the total delivery amount possible during that time period at the delivery rate of 6,100 gpm determines a percentage, and that percentage of the amount of electricity consumed when the system is operated at 6,100 gpm shall be Calpine's share of the total amount of electricity actually consumed during that time period. That portion of the electricity costs not borne by LACOSAN shall be allocated between the Parties based on their respective shares of the electricity consumed.

Add 6.5.1.2 When the monthly average delivery rate is more than 6,100 gpm, and Calpine has exercised its option provided in paragraph 4.4, then that portion of the electricity costs not borne by LACOSAN shall be allocated between the Parties in proportion to the amount of Project Water each received.

Replace paragraph 6.5.2 with "Calpine shall provide all necessary electricity for pumping power to Bear Canyon Pumping Stations at the price provided in Exhibit "A", so long as such price is not higher than the price of power otherwise available to the Project. Calpine's monthly share of Operations and Maintenance Work costs will include, as appropriate, a credit or debit for the value of such power calculated by multiplying the total kilowatt hours of power used by the price provided in Exhibit "A"."

Add 6.5.3 If requested by either Party, NCPA shall provide the electricity needed at the Bear Canyon Pumping Stations to deliver Project Water at those delivery rates that are above 6,100 gpm. NCPA's monthly share of Operations and Maintenance Work costs will include, as appropriate, a credit or debit for the value of such power calculated by multiplying the total kilowatt hours of power used by the price provided in Exhibit "A", or as otherwise agreed upon by the Parties.

7.1 On line 3 after "Steam Suppliers Facilities" insert "and SEGEP Phase II Facilities,"

8.1 On line 3 after "Suppliers Facilities" insert "and SEGEP Phase II Facilities," and at the end of the paragraph after "Steam Suppliers Facilities" insert "and SEGEP Phase II Facilities."

Delete paragraph 13.2 and renumber paragraph 13.3 as 13.2.

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19. <u>Notices</u> Delete reference to "CGC" and "U-N-T" under "Party" and "Address" and replace with "Calpine"

10350 Socrates Mine Road Middletown, CA 95461 Attn: VP-Geothermal Resource Management

20.1 Replace line 1 with "This document and Amendment No. 1 hereto represent and contain the entire agreement and". On line 5, delete "CGC, and U-N-T" and replace with "Calpine."

	NOR	THERN CALIFORNIA POWER AGENCY
Dated: 1601	, 2001	By:
	CAL	PINE CORPORATION
Dated: <u>12/20/01</u>	, 2001	By: W.T.Boy

AMENDED ANÐ RESTATED STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT

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Between

NORTHERN CALIFORNIA POWER AGENCY

and

CALPINE CORPORATION

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GS-AGY-1995-001

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STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT

THIS SECOND AMENDMENT AND RESTATEMENT OF THE STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT (Agreement), is entered into and dated as of this $\int g$ day of <u>September</u>,2003, by and between NORTHERN CALIFORNIA POWER AGENCY, a California joint powers agency and public entity, with its principal executive offices at 180 Cirby Way, Roseville, California 95678 ("NCPA") and CALPINE CORPORATION, a Delaware corporation, with its principal executive offices at 50 West San Fernando Street, San Jose, California 95113 ("Calpine"), referred to herein individually as "Party" and collectively as the "Parties."

RECITALS

WHEREAS, the Parties originally entered into a STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT on July 25, 1995 that established and provided for certain terms and conditions relating to their participation in and responsibility for the operation of that portion of the Southeast Geysers Effluent Pipeline Project (Project) which commences at the Point-of-Delivery and terminates at The Geysers Terminus; and

WHEREAS, the Parties first amended that STEAM SUPPLIERS JOINT OPERATING AGREEMENT on December 20, 2001 to recognize that Calpine had acquired the geothermal interests of PG&E and Unocal at The Geysers and therefore owned a 2/3 interest in all of the Steam Suppliers Facilities of the Project, to recognize that NCPA had entered into an agreement with Lake County Sanitation District (LACOSAN) to fund Basin 2000 Facilities to deliver additional effluent to the Project, and to provide how the Project Water was to be henceforth distributed among other issues; and

WHEREAS, Calpine has recently expressed a willingness to transfer to NCPA a portion of its interest in the Project and a portion of its rights to Project Water for specific considerations, and NCPA has expressed a willingness to provide those same specific considerations; and WHEREAS, the Parties intend to combine in this single document their original agreement as restated and amended in this Agreement.

NOW THEREFORE, in consideration of the premises and the mutual covenants contained herein, the Parties hereto agree as follows:

1. DEFINITIONS

1. 1. 4

1.1 "Gross negligence" shall mean the want of even scant care or an extreme departure from the ordinary standard of conduct.

1.2 "Operation and Maintenance Work" shall mean all labor, services, and material required to operate the Steam Suppliers Facilities in compliance with their design specifications and prudent industry practices, and to maintain Steam Suppliers Facilities in good working order, and to monitor and mitigate any impact on the environment.

1.3 "Point-of-Delivery" shall mean the intake side of the pump station located along Bear Canyon Road that is closest to Highway 175.

1.4 "Project Water" shall mean that water which is delivered to the Parties by LACOSAN at the Point-of-Delivery pursuant to the Joint Operating Agreement Southeast Geysers Effluent Pipeline (SEGEP) Project originally dated July 25, 1995 and amended on December 4, 2001 and the Steam Suppliers Joint Operating Agreement including Amendment 1.

1.5 "Steam Suppliers Facilities" shall mean the pumps, pipeline, instrumentation and other property utilized directly in connection with transporting Project Water from the Point-of-Delivery to The Geysers Terminus, including the Project's transformer at Calpine's Unit 16 and the section of 21 kv power line that connects from Unit 16 to the Bear Canyon Pump Stations.

1.6 "The Geysers Terminus" shall mean that location known as NCPA's "C" Pad, located in the northeast corner of Section 3, Township 10 North, Range 8 West, MDB&M in The Geysers field.

1.7 "Basin 2000 Facilities" shall mean all facilities that will be used to supply and deliver the additional effluent from Northwest Regional Wastewater Treatment Plant (NWRWTP) to the Project, including intake structures, the main pipeline, pump stations, and a new separate flow meter at the NWRWTP. The Basin 2000 Facilities are expected to supply the Project with a minimum of 1,700 gallons per minute (gpm) on average, subject to normal interruptions for maintenance.

1.8 "SEGEP Phase II Facilities" shall mean those upgrades to the existing SEGEP system necessary to increase the delivery rate of the Project to at least 6,400 gpm. The upgrades are expected to include one new booster pump station near "B" street containing two 500 HP pumps, replacement of the existing eleven 450 HP Union pumps and motors and one 450 HP Goulds pump and motor in the Bear Canyon Pump Stations with twelve 500 HP Goulds pumps and motors, VFD replacement at the Bear Canyon Pump Stations, a new fiber optic communication line from NCPA's control room to the Bear Canyon Pump Stations, and an improved cooling system at the Bear Canyon Pump Stations.

1.9 "NCPA's 21 kv Delivery System" shall mean that 21 kv power delivery system, wholly owned and operated by NCPA, that connects the transformer in the switchyard at NCPA's Power Plant #1 to switch "1292" located near Bear Canyon Pump Station #3.

2. EFFECTIVE DATE

This Agreement shall be effective and binding when it has been duly executed by both Parties.

3. TERM

The term of this Agreement shall be for a period of twenty-five (25) years from the effective date hereof, unless this Agreement is sooner terminated pursuant to Sections 13.1, 13.2 or 15 of this Agreement. If upon expiration of said term, the Parties elect to continue operations, the Parties agree to extend this Agreement for a term of not less than five (5) years.

4. OWNERSHIP INTERESTS

4.1 Percentage Shares. Calpine hereby releases and transfers to NCPA, and NCPA hereby accepts, 1/6 of Calpine's formerly described 2/3 ownership interest. The Parties acknowledge, stipulate and agree that, for all purposes of this Agreement, the respective undivided ownership interests of the Parties to this Agreement are:

<u>Party</u>	Interest
NCPA	50 percent
Calpine	50 percent

For all purposes of this Agreement, unless specifically changed by agreement of the Parties, all Steam Suppliers Facilities and all SEGEP Phase II Facilities shall be owned by the Parties as tenants in common and, all costs and liabilities incurred in operations hereunder shall be borne and paid in the percentages set forth above in the column captioned "Interest".

4.2 Project Water. The Parties acknowledge that there are multiple sources of Project Water and that the Parties have different ownership interests in these sources. The water delivered by LACOSAN to the Point of Delivery is to be distributed as follows:

4.2.1 During non-drought years when the Project is allowed to withdraw water from Clear Lake, Calpine will receive 2/3 of the water when the delivery rates are 5,400 gpm or less, and NCPA will receive 1/3. NCPA will receive all of the additional increment of water when the Project is operated between 5,400 gpm and 6,100 gpm, and Calpine and NCPA will equally share in the additional water when the Project is operated above 6,100 gpm. These rates will be calculated on a daily basis.

4.2.2 During drought years when the Project is not allowed to withdraw any water from Clear Lake, Calpine shall receive 2/3 of the effluent flow from Clearlake Oaks Wastewater Treatment Plant, from LACOSAN's Southeast Regional Treatment Plant, and from the Middletown Treatment Plant; Calpine shall have no rights to effluent from the Basin 2000 facilities that include LACOSAN's NW Treatment Plant and NCPA shall have all rights to such effluent. 4.2.3 Calpine will have the right to all of the portion of the Clear Lake water unused by the Project, if any, if extraction by Calpine from other areas of Clear Lake becomes possible.

5. OPERATIONS AND MAINTENANCE

5.1 Operating Committee

5.1.1 Creation and Composition. An Operating Committee is hereby created consisting of two (2) members appointed by each Party to this Agreement designating in writing its respective representative and that representative's address to the other Parties. Such representatives may be changed from time to time in like manner. Such Committee shall meet in Santa Rosa, California, or at such other place as may be mutually agreed upon at the request of any member on ten (10) days' written notice, unless such notice is waived, for the purpose of reviewing operations and information pertaining to the progress of operations, and directing Operator with regard to operations hereunder. Operator, as designated in Section 5.2.1, or the member calling the meeting shall present an agenda together with the notice of such meeting. Relevant additional matters may be considered at the meeting but may not be approved until adequate notice is given to the other members of the Operating Committee informed of the progress of work and provide the members of the Operating Committee with all reports and information upon request.

5.1.2 Decisions of the Operating Committee. The Operating Committee shall approve the annual budgets authorized under this Agreement, shall determine the distribution between the Parties of the maintenance responsibilities for the two 21 kv power supply systems available to supply power to the Bear Canyon Pump Stations, and may approve any Authority for Expenditure as defined in Section 5.2.8. The Party required to supply the power to operate the three Bear Canyon Pump Stations in order to deliver the Project Water shall be established from time to time by the Parties. No action shall be taken by the Operating Committee unless unanimous approval has been given by all voting members. Absent members may vote for agenda items by telefax or by mail addressed to Operator.

5.1.3 Voting Interests. Each Party's voting interest of its members shall be equal to the percentage interests of the Party as specified in Section 4.1.

5.1.4 Substitute Party. If a Party assigns its interest under this Agreement to another person or entity pursuant to Section 14, such assignee shall appoint a member to the Operating Committee.

5.1.5 Telephone Meetings. Any provision in this Section 5 to the contrary notwithstanding, meetings of the Operating Committee may be held by telephone if the members agree. If any meeting of the Operating Committee is held by telephone, all action and votes taken at such meeting shall be immediately confirmed in writing.

5.2 Operator

5.2.1 Designation of Operator. NCPA is hereby designated Operator of the Steam Suppliers Facilities and in such capacity shall have the right to conduct and manage the Steam Suppliers Facilities and Project Water for the account of the Parties hereto, subject, however, to the instructions of the Operating Committee and the provisions of this Agreement.

5.2.2 Operator's Performance. The Operator shall exercise its judgment and discretion in good faith and in accordance with the terms hereof. The Operator shall act in accordance with generally accepted engineering practices and will not violate the decisions of the Operating Committee in the absence of an emergency. The Parties shall share all costs of Operator's action under this Agreement on the basis of the percentage interests set forth in Section 4.1 above, except for costs arising out of the gross negligence or willful misconduct of the Operator.

5.2.3 Operator's Employees. The number of employees, their selection, the hours of labor and the compensation for services performed shall be determined by Operator. All such employees shall at all times remain the employees of Operator.

5.2.4 Liens and Encumbrances. Operator shall endeavor to keep the Steam Suppliers Facilities free and clear of any liens and encumbrances occasioned by the operations hereunder, provided, however that if any lien or encumbrance should attach, Operator shall promptly give notice of such lien or encumbrance to the other Party.

5.2.5 Records. Operator shall keep correct books, accounts and records of all operations at Operator's Geysers office.

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5.2.6 Reports. Operator shall furnish to the other Party such reports as the Operating Committee may require Operator to prepare from time to time, and shall no less frequently than quarterly furnish unaudited reports of operating costs and maintenance, and Project Water disbursement.

5.2.7 Budgets. Operator shall prepare and submit to the Operating Committee for approval a budget of estimated expenses for each fiscal year no later than the first day of May of each year. The fiscal year shall begin on July 1. Each budget shall separately identify any and all planned capital expenditures. Each budget shall enumerate the estimates by quarterly periods, describing each item in reasonable detail. Budgets shall be estimates only and may be amended as necessary by the Operating Committee. A copy of each budget and amended budget shall promptly be furnished to each Party.

5.2.8 Authority for Expenditure. An Authority for Expenditure ("AFE") is a document authorizing Operator to make expenditures for the purposes stated in the AFE. An AFE shall be submitted by Operator for approval by the Parties for:

- a. All unbudgeted capital expenditures.
- b. Budgeted single capital expenditures in excess of \$5,000.00.
- c. Unbudgeted expenses in excess of \$5,000.00.

The AFE shall be prepared by Operator and submitted to the nonoperating Party. An AFE must have unanimous approval of the Parties in order to be effective. Both Parties shall have thirty (30) days in which to approve or not to approve the expenditure. A Party not responding within thirty (30) days will be deemed to have voted to approve the expenditure. If an AFE becomes effective, each Party is liable for any expenditures incurred in connection with the purposes stated in the AFE to the extent of its interest as specified in Section 4.1. An informational AFE may be submitted by Operator for expenditures not requiring approval. 5.2.9 Emergency Expenditures. Notwithstanding any other provision of this Agreement to the contrary, in the event of an emergency, as determined in good faith by Operator, the Operator may immediately make or incur such expenditures as in its opinion are required to deal with the emergency and both Parties shall be liable for said expenditures on the basis of the percentage interests set forth in Section 4.1 above. Operator shall report to the Operating Committee as promptly as possible the nature of the emergency and the action taken.

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5.2.10 Resignation or Removal of Operator. Operator may resign at any time by giving written notice thereof to the non-operating Party. If Operator terminates its legal existence, no longer holds an interest in the Steam Suppliers Facilities or if Operator becomes insolvent, bankrupt or is placed in receivership, it shall be deemed to have been removed without any action by the other Party except the selection of a successor. Such resignation or removal shall not become effective until 7:00 o'clock A.M. on the first day of the calendar month following the expiration of ninety (90) days after the giving of notice of resignation by Operator, or removal or bankruptcy, insolvency or receivership unless a successor Operator has been selected and assumes the duties of Operator at an earlier date. Operator, after the effective date of resignation or removal, shall be bound by the terms hereof as a non-operating Party. A change of corporate name or structure of Operator or transfer of Operator's interest to any single member entity or multiple member entity, parent or successor corporation or subsidiary shall not be the basis for removal of Operator.

5.2.11 Notwithstanding anything contained in Section 25, if a dispute between the Parties arises because the Non-operator Party believes that the Operator has failed or refused to carry out its duties hereunder or is no longer capable of serving as operator, the dispute shall be referred to dispute resolution according to the procedure specified in subsection 5.2.12 below. If it is determined by the arbitrator that Operator has failed or refused to carry out its duties hereunder or is no longer capable of operating as operator, the other Party shall proceed as set forth in subsection 5.2.13 and select a successor Operator.

5.2.12 Arbitration: Any dispute under Section 5.2.11 above shall be directly submitted to dispute resolution in accordance with Section 16 of this Agreement.

5.2.13 Upon the resignation or removal of Operator, a successor Operator shall be selected by unanimous vote of the Parties. In the event the Parties are unable to agree on a successor Operator, the Parties shall proceed in accordance with Section 16 of the Agreement.

5.3 Delivery and Acceptance of Project Water

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5.3.1 Commencement. Operator shall commence delivery and the Parties shall receive and accept Project Water transported by the Steam Suppliers Facilities to The Geysers Terminus or other mutually accepted location(s), no later than thirty (30) days following completion of the Project construction.

5.3.2 Division of Project Water. Operator shall deliver the available Project Water in amounts generally consistent with the provisions contained in subsections 4.2.1 and 4.2.2, on a continuous basis, and in accordance with instructions as to deliveries or exchanges to which the Parties may agree from time to time.

5.3.3 Metering of Project Water. Operator shall operate and maintain in accurate working order metering devices properly equipped and located for the measurement of the Project Water to be delivered hereunder. The Parties shall have access to inspect and test such equipment at all reasonable times, but readings, calibrations, adjustments, repair and other maintenance thereof shall be conducted by Operator.

5.4 Suspension of Operations. The Parties acknowledge that the injection of Project Water as a means of augmenting The Geysers geothermal reservoir is a process which may or may not achieve the desired results, or which may have effects beyond the contemplation of the Parties. Therefore, the Parties hereto may individually or jointly suspend delivery or acceptance of Project Water if at any time during the term of this Agreement a State or Federal agency concludes that the injection of Project Water is causing significant adverse health, safety or environmental effects, or if a Party concludes that the operations are causing interference with its steam production or having adverse effects upon its geothermal facilities, or if contractual or economic conditions make continued operations impractical. Any Party may continue to suspend operations hereunder until such time as the cause can be remedied. 6.

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ALLOCATION AND PAYMENT OF COSTS

6.1 General Rules. Except as otherwise provided herein, all costs and expenses incurred pursuant to the terms and provisions of this Agreement and which relate directly to the Steam Suppliers Facilities shall be shared in proportion to the percentage interest of each Party, as specified in Section 4.1 herein.

6.2 Payment. Operator shall endeavor to bill the non-operator Party on or before the last day of each month for its percentage interest of the actual Operation and Maintenance Work costs for the preceding month. Such bills will be accompanied by statements that identify all charges and credits. Any unusual charges or credits shall be separately identified and fully described in detail. The non-operator Party shall pay its percentage interest of all bills within fifteen (15) days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the prime rate quoted by the Bank of America NT & SA plus one and one-half percent (1 1/2%) per annum or the maximum contract rate permitted by the applicable usury laws of the State of California, whichever is the lesser, plus attorney's fees, court costs, and other costs incurred in connection with the collection of unpaid amounts.

6.3 Advances and Payments by Non-Operator. Operator may require the nonoperator Party to advance its share of the estimated cash outlay for the succeeding month's operation. Operator shall adjust each monthly billing to reflect advances received from the non-operator.

6.4 Adjustments. Payment of any such bills shall not prejudice the right of the non-operator Party to protest or question the correctness thereof; provided, however, all bills and statements rendered to the non-operator Party by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within such twenty-four (24) months period the non-operator Party takes written exception thereto and makes claim on Operator for adjustment. No adjustment unfavorable to Operator shall be made unless it is made within the prescribed period.

6.5 Special Allocations. The electricity costs for pumping the Project water shall be allocated separately from other Operation and Maintenance Work costs for each

month. Each Party's share of the pumping power costs shall be equal to its percentage of Project Water actually received for that month.

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6.5.1 The value of supplying the power to operate the three Bear Canyon Pump Stations in order to deliver the Project Water shall be established from time to time by the Parties, and the agreed upon value of that power shall be that specified in Exhibit "A" of this Agreement.

6.5.2 Each Party's monthly share of Operation and Maintenance Work costs will include, as appropriate, a credit or debit for the value of such power calculated by multiplying the total kilowatt hours of power used by the Party by the value of power as described in Exhibit A herein.

6.5.3 Operations and Maintenance Work costs other than pumping power costs shall continue to be allocated based on each Party's percentage interest as specified in Section 4.1

6.5.4 NCPA shall pay for all of the costs up to \$2.5 million (Two Million Five Hundred Thousand Dollars) to purchase and install the SEGEP Phase II Facilities described in Section 1.8, as partial consideration for Calpine transferring and releasing to NCPA of a portion of Calpine's Project Water. Notwithstanding the foregoing sentence, the non-power Operations and Maintenance Work costs to operate and maintain these facilities will be allocated based on each Party's percentage interest as specified in Section 4.1.

6.5.5 As further consideration for Calpine transferring to NCPA a portion of Calpine's Project Water, NCPA will pay Calpine \$450,000 (Four Hundred Fifty Thousand Dollars) upon the effective date of this Agreement.

6.6 Commingling of Funds. No funds received by Operator under this Agreement need be segregated or maintained by it as a separate fund, but may be commingled with its own funds.

6.7 Audits. The non-operator Party, upon notice in writing to Operator, shall have the right to audit Operator's accounts and records relating to this Project for any calendar year within the twenty-four (24) month period following the end of such

calendar year; provided, however, the making of an audit shall not extend the time for taking written exception to and making adjustments of accounts as provided for above. The non-operator Party shall make every reasonable effort to conduct joint or simultaneous audits in a manner that will result in a minimum of inconvenience to the Operator. The audit shall not be conducted more than once a year without prior approval of the Operator.

7. ABANDONMENT AND RESTORATION

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Upon final termination of this Agreement, each Party shall be responsible for a share of the costs and expenses involved in removing or decommissioning the Steam Suppliers Facilities and SEGEP Phase II Facilities, less any salvage value. The Operator shall calculate each Party's percentage share of such abandonment costs based on the total amount of water taken by each Party as a percent of total Project Water delivered by LACOSAN during the term of this Agreement.

8. RIGHTS RESERVED BY ALL PARTIES

8.1 Access to Project. Each Party shall at all times during the term hereof make reasonable efforts to provide for the other Party to have reasonable access to the Steam Suppliers Facilities and SEGEP Phase II Facilities, including facilities under construction, and to all data and documents concerning current Operation and Maintenance Work affecting any Steam Suppliers Facilities and SEGEP Phase II Facilities.

8.2 Right to Inspect Books and Records. The non-operating Party shall at all reasonable times have the right to inspect Operator's books and accounts relating to operations hereunder.

8.3 Right to Audit. The non-operating Party shall have the right to audit Operator's books and accounts pertaining to operations in accordance with the provisions of Section 6.7.

9. TAXES

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9.1 Property Taxes. Each Party shall be responsible for payment of the real and personal property taxes assessed upon its interest in the property used or held by Operator for operations hereunder. If the property should be assessed as a unit, the Operator shall prepare and file all property tax returns and shall bill the non-operating Party on the basis of its respective share of the portion of the property that is subject to taxation. Such billings shall be paid at least 10 days prior to the dates on which the tax payments are due. At the request of either Party, the Operating Committee shall take responsibility for conducting discussions with the proper taxing authorities relating to the assessment and taxation of such property and shall assist in resolving disputes over property tax assessments.

9.2 Individual Withdrawal. Should either Party withdraw from this Agreement pursuant to Section 13, Individual Withdrawal, such Party will be required to pay a prorated share of property taxes attributable to its percentage interest for the tax year in which the Party withdraws from this Agreement. The withdrawing Party will not be required to pay property taxes for the remaining duration of this Agreement.

9.3 Other Taxes. Each Party shall be individually responsible for any taxes levied or assessed on potential or actual generation increases or reduction of decline rates due to the injection of Project Water into each Party's respective geothermal property.

10. INSURANCE

10.1 Worker's Compensation. Operator shall procure and maintain, for the benefit of both Parties, Worker's Compensation Insurance required by the State of California. If it qualifies, Operator may elect to be a self-insurer with respect to Worker's Compensation Insurance. In either case Operator may charge the other Party its share, as specified in Section 4.1, of the actual cost of the premiums for such insurance.

10.2 Other Insurance. Operator shall procure and maintain such other insurance for the benefit of the Parties as may be required by the Operating Committee. The net premiums for such insurance shall be charged to each Party based on its interest as specified in Section 4.1 and paid pursuant to the terms in Section 4.1.

11. LIABILITY AND INDEMNIFICATION

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Except for the failure to make monetary payments as required by this Agreement, and except for damage resulting from a breach of this Agreement, willful misconduct, gross negligence, conscious disregard or breach of fiduciary obligation, (a) no Party, nor any of its members, directors, members of its governing body, officers or employees shall be liable to any other Party for any loss or damage resulting from, or in any way related to, the performance or nonperformance of its obligations under this Agreement, and (b) any and all liability to third parties and any liability arising from the consequence of any violation or alleged violation of permit, statutes, ordinances, orders, rules or regulations of any governmental entity arising out of the performance of this Agreement shall be shared among the Parties in proportion to the percentage interest set forth in Section 4.1 of this Agreement.

12. OBLIGATIONS AND RELATIONSHIPS OF THE PARTIES

12.1 Best Efforts. Each Party shall use its best efforts and work diligently, in good faith, and in a timely manner, to carry out the duties and obligations imposed by this Agreement.

12.2 Individual Liability. The duties, obligations and liabilities of the Parties shall be several and not joint or collective and nothing contained herein is intended to create a partnership, joint venture, association, or trust among the Parties. Each Party shall be responsible only for its obligations as specified herein, and shall be liable only for its percentage interest as defined in this Agreement in Section 4.1.

12.3 No Agency. Except as expressly provided for in this Agreement or other Project agreements, no Party shall be the agent of or have the right or power to bind another Party.

13. INDIVIDUAL WITHDRAWAL

13.1 Notice of Withdrawal. Except as otherwise provided in Section 13.2 below, after the expiration of three (3) years from the commencement of operations hereunder, a Party shall have the right, upon two (2) years advance written notice, to

withdraw from this Agreement by assigning and transferring in writing all its right, title and interest in the Project to the remaining Party that does not then wish to withdraw.

13.2 Effect of Assignment. Any assignment made as a result of a withdrawal by a Party pursuant to this Section 13 shall not relieve the withdrawing Party from any obligation or liability incurred or created prior to the date that the notice is received, including but not limited to the obligations set forth in Section 7.1 of this Agreement, and provided further that any and all interests created out of such withdrawing Party's interest shall from and after the date of such assignment be subject to the terms of this Agreement and shall be chargeable with the pro rata portion of all expenses thereunder in the same manner as if such interest were a working interest. The right of a withdrawing Party to any benefits subsequently accruing hereunder shall cease upon the effective date of the withdrawal. The withdrawing Party shall be relieved of all obligations and liabilities that arise subsequent to the effective date of the withdrawal.

14. ASSIGNMENTS

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No Party shall have the right to assign, either in whole or in part, any of the rights, duties or obligations related or imposed under this Agreement without the prior written consent of the other Party, and said consent shall not be unreasonably withheld, except to the other Party to this Agreement or to a subsidiary, affiliate or the other party succeeding to all or substantially all of the Geysers geothermal interests of that Party provided that such subsidiary, affiliate or succeeding party assumes the assigning Party's obligations hereunder in writing. No sale or assignment as between the Parties shall relieve the assigning Party of any duties or obligations which accrued prior to the effective date and time of such sale or assignment.

15. TERMINATION

The Parties may jointly terminate this Agreement at any time during the term hereof by the unanimous written consent of the Parties.

16. DISPUTE RESOLUTION

16.1 Mediation. If a dispute arises from or relates to this Agreement, or breach thereof, and if such dispute cannot be settled through negotiation, the Parties agree to first

try in good faith to settle the dispute by mediation under the Commercial Mediation Rules of the American Arbitration Association ("AAA").

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16.2 Arbitration. If the Parties are unable to resolve the dispute within thirty (30) days after service of the mediation request, any Party may serve on the other Party a demand for arbitration. Any dispute shall be subject to arbitration under the Commercial Arbitration Rules of the AAA as amended and supplemented by the terms of this Section. The demand shall set forth the nature of the dispute, the amount involved, the remedy sought, and the locale requested for the arbitration hearing (the "Hearing"). Any demand or a counterclaim shall be served within twenty (20) days after service of the demand for arbitration, and shall contain the same information required by this Section 16.

16.3 Selection of Arbitrator. If the Parties cannot agree on an arbitrator, they shall select the arbitrator from a list of five arbitrators experienced in complex engineering, construction or contract disputes, to be submitted to the Parties by the AAA. Each Party shall be entitled to strike two names from such list and the last name shall be the arbitrator. The Parties shall draw lots to determine the order in which they strike the names. Either Party may request the AAA to disqualify an arbitrator for bias, personal or financial interest, or relationship with any Party, pursuant to the rules of the AAA.

16.4 Discovery. Each Party shall have the right to limited discovery from the other Party as follows: (a) each Party shall be entitled to demand the production, no later than fifteen (15) days before the Hearing, of any documents the other Party intends to rely upon at the Hearing for its case-in-chief, and any documents which refer or relate to the matters at issue in the Arbitration; (b) either Party may demand production, no later than ten (10) days before the Hearing, of the list of witnesses the other Party intends to call at the Hearing for its case-in-chief, together with a brief description of the testimony of each witness; and (c) either Party shall be entitled to take a total of three (3) days of depositions of the other Party's employees or other witnesses, which may be extended only for good cause. Any dispute over discovery shall be submitted to the arbitrator for decision.

16.5 Pre-hearing Conference. The arbitrator shall convene a pre-hearing conference at least ten (10) days before the Hearing to determine procedures for the Hearing, including evidence to be submitted, evidentiary objections, length of the Hearing and other matters.

16.6 Hearing Location and Time. The Hearing shall begin not later than ninety (90) days after service of the demand or cross-demand for arbitration, whichever is later. The Hearing shall be held at a location mutually agreed by the Parties. If the Parties are unable to agree Santa Rosa shall be the hearing locale. The Hearing shall proceed under the rules and procedures of the AAA or as mutually agreed by the Parties.

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16.7 Decision. The arbitrator's decision shall be rendered within thirty (30) days of the submission of all evidence. The decision shall be final and binding on the Parties and their successors, and may be confirmed in any competent Court having jurisdiction. The arbitrator may direct specific performance and may award other equitable relief, but the arbitrator is not empowered to award punitive damages, treble damages or other damages in excess of actual damages, except as indemnification under Section 11 "Liability and Indemnification" of damages owing to a third party.

16.8 Interest. The prevailing Party shall be entitled to interest, compounded monthly, on the net amount of the award, at the then-current prime lending interest rate used by the Bank of America, plus three (3) percentage points. The interest shall accrue from the date the arbitration request under Section 16.2 "Arbitration" is served through the date the award is paid.

16.9 Confidentiality. Notwithstanding anything to the contrary contained in this Section 16, the Parties shall execute an agreement with the mediator or the arbitrator, which shall (a) require the mediator or the arbitrator to treat any information conveyed to them as confidential, and prohibit disclosure of any confidential or trade secret information; (b) make California Evidence Code Section 1152.5 applicable to the mediator or arbitrator; and (c) for the arbitration, prohibit any ex parte contacts with the arbitrator without the explicit consent of the other parties, unless the arbitrator initiates the contacts and they are made part of the record. Any information presented at the mediation or arbitration shall be neither admissible nor discoverable in any regulatory proceeding or in any action, as provided in Section 1152.5 of the Evidence Code.

16.10 Party Representative. Each Party shall have in attendance throughout the mediation and arbitration proceedings a designated representative who has: (a) sufficient authority to negotiate and recommend compromise within the full monetary range of the dispute; and (b) little or no direct involvement in the dispute.

16.11 Costs. The prevailing Party shall be entitled to its costs incurred in connection with the procedures described in this Section 16.

16.12 Statute of Limitations. The service of an arbitration request under Section 16.2 shall suspend the running of any statute of limitations applicable to the dispute for which the negotiation request is made. The Parties shall jointly take any action required in order to effectuate the suspension.

16.13 Exclusivity. The procedures specified in this Section 16 shall be the sole and exclusive procedures for the resolution of disputes. However, a Party may seek a preliminary injunction or other preliminary judicial relief in order to avoid great or irreparable injury, or waste to the extent otherwise permitted by law. Despite such action, the Parties shall continue to participate in good faith in the procedures specified in this Section 16.

17. FORCE MAJEURE

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If as a result of force majeure, which means acts of God, strikes, lockouts, or other disturbances, acts of the public enemy, wars, insurrections, riots or acts of terrorism, epidemics, landslides, earthquake, severe weather conditions, fires, storms, floods, washouts, or acts of restraint by any governmental agency or any other cause whether similar or dissimilar to the foregoing enumerated causes not within the control of the Party or Parties claiming suspension, any Party is unable to carry out its obligations under this Agreement wholly or in part, such Party shall give prompt written notice to the other Party of the force majeure with reasonably full particulars concerning it. Thereupon, except for obligations to make payment of money, the obligation of the Party giving the notice, so far as it is affected by the force majeure, shall be suspended to the extent of and during, but no longer than, the continuance of the force majeure; provided the non-performing Party promptly and persistently pursues all the alternatives reasonably available to remedy its ability to perform and the non-performing Party resumes performance of its obligations as soon as possible. The other Party shall also be relieved of its obligations to the extent such Party or other Party cannot perform due to such event of force majeure.

18. COMPLIANCE WITH LAWS

The Parties shall comply with all applicable federal, state, and local laws and the rules and regulations of any federal, state, local or other government agency having jurisdiction over the activities and operations conducted pursuant to this Agreement.

19. NOTICES

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19.1 Addresses. Any and all notices or other communications required or permitted by this Agreement, or by the law, to be delivered to, served on, or given to either Party to this Agreement shall be in writing and shall be deemed properly delivered when personally delivered to the Party to whom it is directed, or in lieu of such personal service, when deposited in the United States mail, first class postage prepaid, addressed to the parties as follows:

<u>Party</u>	Address
NCPA	P.O. Box 663 Middletown, CA 95461 Attn. Steam Field Superintendent
	With a copy to:
	General Manager Northern California Power Agency 180 Cirby Way Roseville, CA 95678
Calpine	10350 Socrates Mine Road, Middletown, CA 95461 Attn. VP-Geothermal Resource Management

19.2 Changes. Any Party hereto may change its address for the purpose of this Section 19 by giving written notice of such change in the manner prescribed by this Section 19 to the other Party to this Agreement.

20. ENTIRE AGREEMENT

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This document represents and contains the entire Agreement and understanding between the Parties with respect to the subject matter hereof and supersedes any and all prior oral and written agreements and understandings including the first amendments and second, except for the Project Construction Financing Agreement and the Joint Operating Agreement between LACOSAN, NCPA, and Calpine. No promises, agreements, or warranties additional to this Agreement shall be deemed to be a part hereof, nor will any alteration, amendment or modification hereto be effective unless confirmed in writing by the Parties or their duly authorized agents.

21. SEVERABILITY

In the event that any term, covenant, or condition of this Agreement or the application of any such term, covenant, or condition shall be held invalid as to any person, entity, or circumstance by any court or agency having jurisdiction, such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby but shall remain in full force and effect unless a court or agency having jurisdiction holds that such provisions are not severable from the other provisions of this Agreement.

22. WAIVERS AND AMENDMENTS

No waiver shall be deemed to have been made by any Party of any of its rights under this Agreement unless the same shall be in writing signed on its behalf by a person authorized to make such a waiver. Any such waiver shall constitute a waiver only with respect to the specific matter described in such writing and shall in no way impair the rights of the Party granting such waiver in any other respect or at any other time. Further, this Agreement shall not be amended or modified except by an instrument in writing signed by the Party against whom enforcement is sought.

23. NO DEDICATION OF FACILITY

Any undertaking by a Party under any provision of this Agreement is rendered strictly as an accommodation and shall not constitute the dedication of such Party's facilities to the public, to any other Party, or to any third party.

24. THIRD PARTY BENEFICIARIES

None of the promises, rights, or obligations contained in this Agreement shall ensure to the benefit of any person or entity not a Party to this Agreement, other than the rights of members of NCPA, which derive from their membership in NCPA.

25. DEFAULT

If any Party to this Agreement defaults in respect to any of its obligations under this Agreement, the non-defaulting Party shall notify the defaulting Party in writing, setting out in what respects the non-defaulting Party deems the defaulting Party to be in such default. If within thirty (30) days after receipt of such notice, the defaulting Party has corrected the default alleged by the non-defaulting Party, the defaulting Party shall not be deemed in default. Neither the service of said notice, nor the doing of acts by the defaulting Party aimed to correct any or all of the alleged defaults, shall be deemed an admission or presumption that the defaulting Party has failed in any respect to perform its obligations hereunder. If the defaulting Party fails to correct all or any of the alleged defaults within the allowable time, the non-defaulting Party, may proceed in accordance with Section 16.

26. ATTORNEY'S FEES

If any action at law or in equity, including arbitration pursuant to Section 16 above, is necessary to enforce or interpret the terms of this Agreement, the prevailing Party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements, in addition to any other relief to which such Party may be entitled, unless otherwise provided in this Agreement.

COUNTERPARTS 27.

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> This Agreement may not be executed in counterparts and shall be deemed to constitute a single Agreement when executed by both parties on the same Agreement.

> IN WITNESS WHEREOF, the Parties have executed this Agreement the day and year first above written.

NORTHERN CALIFORNIA POWER AGENCY

oser By: Name: George Hraser General Manager Title:

03 Date:

Witness:

By:

NCPA Secretary or Assistant Secretary

Approved as to Form:

DENNIS W. DE CUIR A Law Corporation

Bv

Dennis W. De Cuir

CALPINE CORPORATION

7. h By:)OF Name:

Date: 9/8/03

Title: VP, Geothermal Resource Management

Witness: 10mi By: Regional Power VP, Geothermal

EXHIBIT A

(effective as of April 1, 2003)

Statement of the Value of the Pumping Power delivered to the Bear Canyon Pump Stations as part of the operation of the Southeast Geysers Effluent Pipeline Project

The pumping power at Bear Canyon shall be provided as follows:

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NCPA will provide all project power to operate the three Bear Canyon Pump Stations at \$40/Mwhr for the period April 1, 2003 through December 31, 2006. Under emergency conditions, when NCPA in incapable of supplying power, NCPA may request that Calpine temporarily supply the power needed until NCPA's capability has been restored.

Calpine and NCPA will jointly develop a mutually acceptable plan for either or both Parties to provide the Bear Canyon Pumping Stations power requirements after December 31, 2006.



Middletown, CA

accord manager

WWW.ncos.com

December 20, 2006

Mr. Dennis Gilles Vice President, Calpine Corporation 10350 Socrates Mine Road Middletown, CA 95409

Re: Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of the Southeast Geysers Effluent Pipeline Project) of the Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project, between Calpine Corporation and NCPA, dated September 18, 2003 ("SEGEP" Agreement").

Dear Dennis:

As we discussed, and Pursuant to section 22 of the SEGEP Agreement, which allows for revisions to the agreement by an instrument in writing, attached is our proposed amended Exhibit A to the referenced agreement. This Amended Exhibit A is necessary because the current contractual commitment by Northern California Power Agency (NCPA) to provide the power to operate the Bear Canyon Pump Stations terminates December 31. 2006. The Amended Exhibit is to be implemented effective January 1, 2007.

As a result of negotiations between Calpine Corporation and NCPA, the Operating Committee of the Project proposes that future power supplies be based on a prorated pumped volumes basis. Henceforth, beginning January 1, 2007, each Party is to supply its share of the power that is needed to deliver its share of the water to The Geysers delivery points. The terms of the present Agreement entitle Calpine to receive about 60% of the water that is being delivered under typical operating conditions. Consequently, it is proposed that Calpine agree to supply the power needed to operate both Bear Canyon Pump Stations #1 and #2, while NCPA agrees to supply the power needed to operate Bear Canyon Pump Station #3. Currently the power needs are typically 2.2 MWs for #1 plus #2, and 1.2 MWs for #3. Both Parties acknowledge and agree that they will provide temporary backup power service to the other as needed.

The accounting for the amount of power actually delivered each month, to the Bear Canyon Pump Stations, by each Party is to be based on meter readings made the first day of each month and reported within five (5) business days to the other party. As identified in the enclosed figure on Page 2, Calpine is to report on meters #3136 R7 and #1444 T5. and NCPA is to report on meter #12:

The value of the power supplied each month, by the Parties, is to be calculated using the simple mathematical average of the hourly weighted daily market prices for electricity as posted by the International Exel inge (ICE), we shown in the attached example, (or as

posted by a mutually agreed to successor Index, such as Dow Jones Electricity Price Index) for North Path 15, plus an adjustment factor of \$5/MWhr. Any Party with an excess delivery of power, compared to its percentage of water received from the Project that month, will be credited for those excess MWhrs at the rate described above; such credit to be applied against the project operating cost on the next published monthly invoice. This method of valuing the power supplied by both Parties is to be effective from January 1, 2007 through June 30, 2007 (end of current project fiscal year). Following June 30, 2007, this method is to be either extended or modified by mutual written agreement of the Project's Operating Committee for subsequent budget years, not less than 60 days before the end of the then current SEGEP fiscal year.

If the above fairly represents your understanding of the conditions of this amendment, please sign as indicated and return.

Steven Encdy

Northern California Power Agency

26/2006 Date

Dennis Gilles CALPINE CORPORATION

12-20-06 Date

CENSURS BCPS#3 BCPS#1&2 **NCPA** Primary **Calpine Primary** Calpine Backup NCPA Backup Typical 1.2 MW Typical 2.2 MW ٢ 1-30/10.56 8315 8311 OOZ, N NTR. 3136 87 NCPA PLANT 1 211V FELDER 8279 MTR. #12 2 8649 21KV/480V 11 HOTE 1 2 OF 3 HTR. 1444 15 1292 1293 1292 N 97.5MC HO 4835 · 7671 CUNC 13 (BAUS) (A)

EXHIBIT A

(As amended by letter agreement dated December 20, 2006, effective as of January 1, 2007)

Power Supply and the Calculation of Pumping Power Value of the Southeast Geysers Effluent Pipeline Project

The Supply of Power to the Bear Canyon Pump Stations shall be as follows:

1). Starting on or about January 1, 2007 Calpine is to supply the power needed to operate both Bear Canyon Pump Stations #1 and #2, while NCPA agrees to supply the power needed to operate Bear Canyon Pump Station #3.

2). Both Parties acknowledge that they are willing to provide temporary backup power service to the other as needed. Such temporary period is not to exceed 45 calendar days without written acknowledgement and agreement.

3). By the 5th business day of the each month the Parties are to inform each other of the metered delivery of MWhrs to the Bear Canyon Pump Station(s) during the previous month. Emailed or FAXED transmission will be accepted.

Calculation of the Value of the Pumping Power to be Supplied to the Bear Canyon Pump Stations

1). For the period January 1, 2007 through June 30, 2007 the value of the electricity being supplied by the Parties to the Bear Canyon Pump Stations each month is to be calculated by using the simple mathematical average of the hourly weighted daily market prices for electricity as posted by the International Exchange (ICE), as shown in the attached example, for North Path 15, plus an adjustment factor of \$5/MWhr. See the attached sample calculation.

2). Any Party with an excess delivery of power, compared to its percentage of water received from the Project that month, will be credited for those excess MWhrs at the rate described above. That credit will be applied as part of the accounting of the total project expenses for that month, and the respective share of those expenses to be paid by each Party.

3). For the fiscal year beginning July 1, 2007 and thereafter, this method is to be either extended or modified by mutual written agreement, not less than 60 days before the end of the then current SEGEP fiscal year.





Rec. 3

l. Step 1 SAKWA August 21, 2004 August 28, 2004 August 29, 2004 August 29, 2004 August 19, 2004 August 19, 2004 August 19, 2004 August 19, 2004 August 11, 2004 August 10, 2004 August 10, 2004 August 11, 2004 August 11, 2004 August 10, 2004 DATE August 31, 2006 **5**4 570.00 ograd Ĩ 80.098 1, 2004 1/1/2006 ON Past 574.42 574.42 571.27 572.41 571.44 560,48 560,48 8/2/200 202 1. 17,000 INVIA I Valueso 8/4/2005 8/5/200 Provile Hiligh Ran On. 8/8/2008 × NUMBERS NIGHLITED - PLEMAED Replaced with the second state of the second state of the second se MT/2006 8 For questions or communits plans Peak Land Fitam Oa 8/3/2008 ----116/2006 50.00 50.00 50.00 50.00 50.00 542.10 542.10 542.00 542.00 Pre art1/2004 SNON B Volumo 8112/2008 and Ernaul Onubage (000) 620-4003 8415/2000 Paul Xigh HUMBERS HIGHLITED - SURVEYED Picto Off 114000 Plan On Paul 115/2004 Preditions fhm off 7 114/20 Ì S/17/200 San & NERC 1112000 MINCON YE 54.73 ar out 10.24 a/1 a/2004 1/20/2004 Nr 13 Electricity Price Index 271/200 1711780 Bun & MENC Bun & MERC 1/23/200 1 12-17-0 Ĩ 104260 8/2//2000 × Sunday & NEWC Haldays 1000 Avenue 1.1 툳 1/30/200 2/31/200 1 of drys in month 31 计数码代码的过程分配计数据分数 医化疗 televity in Average 570.34 SALA2 **SAAD** 74.6

w + 1

.84

STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT

THIS THIRD AMENDMENT OF THE STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT (Agreement), is entered into and dated this 6th day of November 2007, by and between NORTHERN CALIFORNIA POWER AGENCY, a California joint powers agency and public entity, with its principal executive offices at 180 Cirby Way, Roseville, California 95678 ("NCPA") and CALPINE CORPORATION, a Delaware corporation, with its principal executive offices at 50 West Fernando Street, San Jose, California 95113 ("Calpine referred to herein individually as "Party" and collectively as the "Parties".

RECITALS

WHEREAS, the Parties originally entered into a STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT on July 25, 1995 that established and provided for certain terms and conditions relating to their participation in and responsibility for the operation of that portion of the Southeast Geysers Effluent Pipeline Project (Project) which commences at the Point-of-Delivery and terminates at The Geysers Terminus; and

WHEREAS, the Parties first amended that STEAM SUPPLIERS JOINT OPERATING AGREEMENT on December 20, 2001 to recognize that Calpine had acquired the geothermal interests of PG&E and Unocal at The Geysers and therefore owned a 2/3 interest in all the Steam Suppliers Facilities of the Project, to recognize that NCPA had entered into an agreement with Lake County Sanitation District (LACOSAN) to fund Basin 2000 Facilities to deliver additional effluent to the Project, and to provide how the Project Water was to be henceforth distributed among other issues; and

WHEREAS, the Parties more recently approved the AMENDED AND RESTATED STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT on September 18, 2003 to recognize that Calpine has transferred to NCPA a portion of its interest in the Project and a portion of its rights to Project Water for specific considerations provided to Calpine by NCPA, resulting in the Parties each having a 50 percent interest in the ownership of all Steam Supplier Facilities; and

WHEREAS, NCPA now has an approved reservation request from PG&E for California Solar Initiative ("CSI") incentives to support a proposed 999 kw PTC_{AC} rated solar array at the Southeast Geysers Effluent Pipeline Project's ("SEGEP") Southeast Pump Station ("SEPS"), the solar array henceforth referred to as the Solar Pumps Project ("SPP"), and that NCPA intends to utilize its governmental agency status (not available to Calpine) to obtain favorable financial incentives (CSI PBIs at a higher-than-taxable-entity rate and CREB financing) to permit NCPA to construct, operate and obtain a return on its investment that approximates its cost of capital for a just-under 1 mW PTC_{AC} rated solar facility; and

WHEREAS, The SPP facility will hedge approximately 30% of the PG&E electricity costs for operating the SEPS, and that NCPA as the Host Customer for the PG&E meter for SEPS is the only eligible party for CSI incentives, and must be owner of the solar facility to minimize levelized costs of electricity from the SPP, and because of its non-federally taxable and non-profit status and thus low cost of capital, NCPA is willing to make the approximately \$8.3 million capital investment required for the ground based, tilted, single axis tracking solar facility; and

WHEREAS, NCPA will require the collection of the savings in PG&E electricity costs, and the ownership of any Renewable Energy Credit ("REC") attributable to the array over a period of time (the capital recovery period or "CRP"), in order to amortize its large projected capital investment, and that after that CRP is completed, NCPA is willing to share with Calpine the future hedging benefit (but not any RECs created after the CRP) of the solar facility at no capital cost to Calpine.

NOW THEREFORE, in consideration of the premises and the mutual covenants contained herein, the Parties hereto agree to modify the existing AMENDED AND RESTATED STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT as follows:

Add under 1. DEFINITIONS

1.9 "Solar Pumps Project (SPP)" facilities shall mean the solar array owned by NCPA to be installed at the SEPS for use by the Project to reduce electricity costs charged the Parties by PGE.

Replace the introduction to existing Section 6.5 with the following:

"Special Allocations. The electricity costs for pumping Project Water shall be allocated separately from other Operation and Maintenance Work costs for each month. Each Party's share of the pumping power costs shall be equal to its percentage of Project Water actually received for that month, with the exception that the pumping power costs incurred at SEPS are to be calculated in the manner described in Section 6.5.6."

Replace existing Section 6.5.3 with the following:

"Operations and Maintenance Work costs other than pumping power costs shall continue to be allocated based on each Party's percentage interest as specified in Section 4.1, subject to the adjustments described in Sections 6.5.7 and 6.5.8."

Add a new section, as follows:

"Section 6.5.6 Once the SPP is operational at SEPS the CRP will start and from that point in time (and until the end of the CRP) Calpine's share of the cost of SEPS electricity is to

be calculated as the product of the percentage of water received during the monthly billing periods times a "calculated" PG&E bill (the "CBill") rather than the actual PG&E bill. This CBill will be calculated by taking hourly data from the PG&E meter and adding hourly production data from the SPP's Production Monitoring and Reporting Service ("PMRS") and computing the cost of electricity for the SEPS as if all electricity consumed at the SEPS facility had been supplied by PG&E. Under current E-20P billing, this would result in Time Of Use ("TOU") totals for energy and capacity in kwh and kw, respectively, multiplied by the appropriate rate for each category, plus power factor adjustment and CEC tax. A sample CBILL is attached as an Exhibit B to this Amendment. The CBill will be calculated using the actual PG&E rate schedule in force at SEPS for each monthly billing period. If PG&E makes any change in the rate schedule at SEPS solely because of the production from the SPP (i.e., a less or more costly rate schedule is applied to SEPS because of the reduced purchases of electricity from PG&E due to the production provided by the SGP), Calpine and NCPA agree to make an appropriate adjustment to the method of calculating the CBill so that Calpine's share of SEPS electricity expenses is equivalent to what it would have incurred absent the existence of the SPP. Both parties agree to share in any changes in PG&E costs at SEPS that occur in the general course of PG&E's business, unrelated to the use of the SPP. Starting in year 26 (after the CRP), the allocation of the PG&E electricity bill at SEPS will revert back to the pre-SPP calculation, simply using the actual PG&E bill."

Add a new section, as follows:

"Section 6.5.7 None of the Operation and Maintenance Work costs of the SPP solar array incurred by NCPA during the CRP are to be allocated to Calpine. Starting at the end of the CRP, the SPP Operation and Maintenance Work costs are to be allocated based on each Party's percentage interest in the Project as specified in Section 4.1 and if disposition of the SPP occurs after the CRP (presumably at the termination of SEGEP), that will be done in accordance with Section 7 Abandonment and Restoration. If SEGEP termination occurs before the completion of the CRP, NCPA will be wholly responsible for all SGP re-deployment, dismantling and/or disposal costs incurred. It is agreed and acknowledged that, as between the parties, NCPA has sole control over the selection, design, construction, and testing of the SPP, including the retention of qualified design professionals and contractors to construct the SPP. and will own the SPP. Therefore NCPA is solely responsible for acquiring warranty and other contractual protections related to same. Should the SPP be defective in design or manufacture; fail prematurely; or become obsolete prior to expiration of the CRP, NCPA shall be solely responsible for the repair or replacement of the unit, or any failed part associated therewith, at its sole cost, and Calpine shall not be responsible for any repair or replacement except to the extent the defect, premature failure, or obsolescence is caused by Calpine's active negligence. NCPA is solely responsible for keeping the SPP project (and related improvements) free of mechanic's and materialmen's liens which arise from the design or construction of the SPP, and NCPA is solely responsible for any and all costs, including attorney fees), necessary for the defense, and timely removal, of those liens recorded against the real property or personal property of the Parties, or each of them. NCPA shall defend, hold harmless and indemnify Calpine from any all claims and alleged damages by any person, both in law and equity, including attorneys fees, which arise from or are associated with the design and construction of the SPP, except to the extent caused by the active negligence of Calpine."

Add a new section, as follows:

"Section 6.5.8 Calpine is not to be charged for any increased incremental insurance premiums created by the SPP during the CRP. After the CRP is completed, all insurance premiums will be allocated as normally provided for in Section 6.5.3".

Except as expressly described herein this Third Amendment, the "Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project" remains in full force and effect.

The signatories represent that they are authorized to sign this Amendment on behalf of the party for whom they sign, and have executed it on the dates as shown.

CALPINE CORPORATION, A Delaware Corporation IMMY Βv Printed Name: Denhis J Gilles Title: Senior Vice President Date 11-06-07

NORTHERN CALIFORNIA POWER AGENCY a California joint powers agency and public entity

by mybrande

Printed Name: <u>Murray G. Grande</u> Title: <u>Geothermal Facility Manager</u> Date <u>11/7/47</u>

Exhibit B Example CBIII

Billing Days: PG&E CBILL		30	Blue cells are d					
						Usage		
Dates of Bill period	1		number of days in bill	Prior Read	Current Read	Umerence	Meter Constant	Usage
6/12/2009	-	7/11/2009	30			504	1200	604,80
PG&E Data	Total kwh		·	39778	40282	422	1200	506,40
PG&E Data	Total kvars			24032	24454	422	1200	500,40
PMRS Data	<u> </u>							
6/12/2009	·	5/30/2009						
Peak								76,000
Partial Peak								53,200
Off-Peak	·							(
Subtotal								129,20
7/1/2009	-	7/11/2009						44,000
Peak	1 .							30,800
Partial Peak	1							
Off-Peak					·			74,80
Subtotal			[<u>_</u>				74,00
Total PMRS	kwh							120,00
Peak			· · · · · · · · · · · · · · · · · · ·					84.00
Partial Peak								04,00
Off-Peak								204.000
Subtotal								104,000
Total kwh							810,000	808,800
Total Bill	calculate	h.						\$90,691.99

Exhibit 8 Example CBill

6/12/2009	9 -	6/30/2009							
Season:	Summer	PG&E Energy	PMRS Energy	Total CBill Ener	Rate		Amounts	C BILL Amounts	
					ľ				
Peak		11,400					\$10,824.49		
Partial Peak		50,920	53,200				\$9,561.34		
Off-Peak		321,450	0	321,480	\$0.06527		\$20,983.00		
Totals	1	383,800	129,200	513,000				\$41,368.83	
Season:	Summer	PG&E Capacity	PMRS Capacity	Total Cbill Capa	city				
		200	1,000	1,200	\$11.88000		\$14,256.00		
Peak	<u>-</u>	1,308	1,308				\$3,557,76		
Partial Peak		1,303	1,308	1,308			\$6,592.32		·. · · ·
Off-Peak	ļ	1,303	1,308	1,308	33.04000		\$24,405.08		
Fotals	<u> </u>						\$24,400.08	<u> </u>	
Capacity charge Allo	cation to this	s period of bill			· · ·		0.6333333333	\$15,457.18	
Meter charge allocati		1				\$788.50	0.633333333		
		CEC tax and PF adjustr	nent						\$57,325.4
CEC tax this period							Rate \$/kwh	\$0,00022	\$112.8
Let tax inis period		1					I LAIS WINNI	\$0.000ZZ	
7/1/2009	- -	7/11/2009						C BILL Amounts	
Season:	Summer	PG&E Energy	PMRS Energy	Total CBill Energy	Rate		Amounts		
Peak]	8,600	44,000				\$6,266.81		·····
Partial Peak		29,430	30,800				\$5,535.51		
Off-Peak	I	195,120	0				\$12,148,05		
Totals		222,200	74,800	297,000				\$23,950.37	
Season:	Summer	PG&E Capacity	PMRS Capacity	Total Chill Capa	sity				·
Peak		200	1,000	1,200	\$11,880001		\$14,256.00		
Partial Peak	1	1,308	1,303	1,308	\$2,72000		\$3,557,76		
Off-Peak		1,308	1,303	1,308	\$5,04000		\$6,592,32	· · · · · · · · · · · · · · · · · · ·	
Fotals							\$24,406.08	· · · · ·	
M	- 1/ 40 /6/0	and at hill					0.366666667	\$8,948.90	
Capacity charge Alloc		penoo or pill				\$788.50	0.366666667	\$289.12	
Vieter charge allocation		CEC lax and PF adjustm	lent		—	\$100.00	0.30000001		\$33,188.3
rotar Onargeo milo pe									
CEC tax this period							Rate \$/kwh	\$0.00022	\$65.3
			Daily meter charge	primary voltage					
Meter charge	<u> </u>	30	\$26.28337					\$788,50	
Cotal Bill									
	Total kwh							810,000	
·····	Total kvars							506,400	
		tor measured				-		85.0%	
	power facto		\$0.00005	\$/kwh/% under 8	5%				\$0.0
	Total Bill			l l	ŕ				\$90,691,9



June 26, 2008

Mr. Dennis Gilles Senior Vice President, Calpine Corporation 10350 Socrates Mine Road Middletown, CA 95409

Re. Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of the Southeast Geysers Effluent Pipeline Project) of the letter agreement between Calpine Corporation and NCPA dated December 20, 2006.

Dear Dennis:

Pursuant to section 22 of the SEGEP Agreement, which allows for revisions to the Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project by an instrument in writing, attached is NCPA's proposed amended Exhibit A to the referenced agreement. This Amended Exhibit A is necessary because the current agreement as contained in a letter agreement dated June 4, 2007 as to the supply of power to the Bear Canyon Pump Stations will expire on June 30, 2008. NCPA's proposed Amended Exhibit A is to be implemented effective July 1, 2008.

The proposed changes are to extend the term of Exhibit A for an additional 12 months, to run concurrent with the full term of the fiscal year beginning on July 1, 2008 and to increase the adjustment factor from \$5/MWhr to \$10/MWhr above the hourly weighted daily market prices for electricity as posted by the International Exchange (ICE) for North Path 15. In addition, once a quarter a Party is to have the option to temporarily provide the power needed to operate all three stations in order to better balance the amount of power it will supply to the amount of water it will receive that quarter.

If the above fairly represents your understanding of the conditions of this amendment, please sign as indicated and return.

James H. Pope Northern California Power Agency

09 Date

Dennis Gilles

CALPINE CORPORATION

2008 Date

EXHIBIT A

(As amended by letter agreement dated June 4, 2008, effective as of July 1, 2008)

Power Supply and the Calculation of Pumping Power Value of the Southeast Geysers Effluent Pipeline Project

The Supply of Power to the Bear Canyon Pump Stations shall be as follows:

1). Calpine shall continue to normally supply the power needed to operate both Bear Canyon Pump Stations #1 and #2, while NCPA shall continue to normally supply the power needed to operate Bear Canyon Pump Station #3.

2). Both Parties will provide temporary backup power service to the other as needed if available. Such temporary period is not to exceed 45 calendar days without written acknowledgement and agreement.

3). By the 5th business day of the each month the Parties are to inform each other of the metered delivery of MWhrs to the Bear Canyon Pump Station(s) during the previous month. Emailed or FAXED transmission will be accepted.

4). On or about August 10, 2008, based on the July data, the daily meter readings automatically recorded at each pump station during the first third of August, and on the amount of water each Party has received so far and is expected to further receive during the quarter, NCPA (as Operator) is to inform Calpine which Party will need to begin on the 20th to temporarily supply all of the power needed to operate the Bear Canyon Pump Stations, and the number of days that it will need to continue to do so in order that the power it supplies during the quarter will better balance the amount of water it is expected to receive during the quarter. That Party is to have the option to either temporarily supply that additional power for that number of days before returning to its normal schedule of power supply, or to not do so and to instead simply continue its normal schedule of power supply. That decision is to be communicated to the other Party within 5 days of the notice by either E-mail or Fax.

5). This process is to then continue in each of the quarters ahead, with the opportunity for a temporary changes in power supply to begin on the 20th of the middle month of each quarter, or on the first business day after that date.

Calculation of the Value of the Pumping Power to be Supplied to the Bear Canyon Pump Stations

1).. For the period July 1, 2008 through June 30, 2009 the value of the electricity being supplied by the Parties to the Bear Canyon Pump Stations each month is to continue to be calculated by using the simple mathematical average of the hourly weighted daily market prices for electricity as posted by the International Exchange (ICE) for North Path 15, plus an adjustment factor of \$10/MWhr. In the event that CAISO implements MRTU, the value of the electricity being supplied by the Parties to the Bear Canyon Pump Stations each month will be calculated by using the simple mathematical average of the hourly weighted daily market prices for electricity at the NP15 EZ GEN Hub, plus an adjustment factor of \$10/MWhr

2). Any Party with an excess delivery of power, compared to its percentage of water received from the Project that month, will be credited for those excess MWhrs at the rate described above. That credit will be applied as part of the accounting of the total project expenses for that month, and the respective share of those expenses to be paid by each Party.

3). For the fiscal year beginning July 1, 2009 and thereafter, this method is to be either extended or modified by mutual written agreement, not less than 60 days before the end of the then current SEGEP fiscal year.



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

www.ncpa.com

June 1, 2009

Mr. Mike Rogers Senior Vice President, Geothermal Region Calpine Corporation 10350 Socrates Mine Road Middletown, CA 95409

SUBJECT: Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of the Southeast Geysers Effluent Pipeline Project) of the letter agreement between Calpine Corporation and NCPA dated June 26 2008.

Dear Mike:

Pursuant to section 22 of the SEGEP Agreement, which allows for revisions to the Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project by an instrument in writing, attached is NCPA's proposed amended Exhibit A to the referenced agreement. This Amended Exhibit A is necessary because the current agreement as contained in a letter agreement dated June 26, 2008 as to the supply of power to the Bear Canyon Pump Stations will expire on June 30, 2009. NCPA's proposed Amended Exhibit A is to be implemented effective July 1, 2009.

The proposed changes are to extend the term of Exhibit A for an additional Thirty Six (36) months, to run concurrent with the full term of the fiscal year beginning on July 1, 2009, and to modify the calculation of power to potentially include the new Bear Canyon Zero Booster Pump Station if agreed to by both Parties.

If the above fairly represents your understanding of the conditions of this amendment, please sign as indicated and return.

JAMES HYR

General Manager Northern California Power Agency

Date

MIKE ROGERS Senior Vice President, Geothermal Region CALPINE CORPORATION

Date 6/10/2009

Attachment: Exhibit A

EXHIBIT A

(As amended by Letter Agreement dated June 1, 2009, effective as of July 1, 2009)

Power Supply and the Calculation of Pumping Power Value of the Southeast Geysers Effluent Pipeline Project

The Supply of Power to the Bear Canyon Pump Stations shall be as follows:

1. Calpine shall continue to normally supply the power needed to operate both Bear Canyon Pump Stations #1 and #2, while NCPA shall continue to normally supply the power needed to operate Bear Canyon Pump Station #3.

- 2. Both Parties will provide temporary backup power service to the other as needed if available. Such temporary period is not to exceed forty-five (45) calendar days without written acknowledgement and agreement.
- 3. By the fifth (5th) business day of the each month, the Parties are to inform each other of the metered delivery of MWhrs to the Bear Canyon Pump Station(s) during the previous month. Emailed or FAXED transmission will be accepted.
- 4. On or about August 10, 2009, based on the July data, the daily meter readings automatically recorded at each pump station during the first (1st) third (3rd) of August, and on the amount of water each Party has received so far and is expected to further receive during the quarter, NCPA (as Operator) is to inform Calpine which Party will need to begin on the twentieth (20th) to temporarily supply all of the power needed to operate the Bear Canyon Pump Station, and the number of days that it will need to continue to do so in order that the power it supplies during the quarter. That Party is to have the amount of water it is expected to receive during the quarter. That Party is to have the option to either temporarily supply that additional power for that number of days before returning to its normal schedule of power supply, or to not do so and to instead simply continue its normal schedule of power supply. That decision is to be communicated to the other Party within 5 days of the notice by either E-mail or Fax.
- 5. This process is to then continue in each of the quarters ahead, with the opportunity for temporary changes in power supply to begin on the twentieth (20^{th)} of the middle month of each quarter or on the first (1st) business day after that date.
- 6. NCPA will be solely responsible to provide power for Bear Canyon Booster Pump Station Zero (BCZ)

Calculation of the Value of the Pumping Power to be Supplied to the Bear Canyon Pump Stations

For the period July 1, 2009 through June 30, 2012, the value of the electricity being supplied by the Parties to the Bear Canyon Pump Stations each month will be calculated by using the simple mathematical average of the hourly weighted daily market prices for electricity at the NP15 EZ GEN DA LMP.

1.

4.

- 2. Any Party with an excess delivery of power, compared to its percentage of water received from the Project that month, will be credited for those excess MWhrs at the rate described above. That credit will be applied as part of the accounting of the total project expenses for that month, and the respective share of those expenses to be paid by each Party.
- 3. For the fiscal year beginning July 1, 2012, and thereafter, this method is to be either extended or modified by mutual written agreement, not less than sixty (60) days before the end of the then current SEGEP fiscal year.
 - If both Parties agree, NCPA will receive credit for the power delivered to BCZ and that credit will be applied herein as part of the accounting of the total project expenses for that month, and the respective share of those expenses to be paid by each Party.



October 28, 2010

Mr. Mike Rogers Senior Vice President, Geothermal Region Calpine Corporation 10350 Socrates Mine Road Middletown, CA 95461

SUBJECT: Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of the Southeast Geysers Effluent Pipeline Project) of the letter agreement between Calpine Corporation and NCPA dated June 1, 2009.

Dear Mike:

Pursuant to section 22 of the SEGEP Agreement, which allows for revisions to the Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project by an instrument in writing, attached is NCPA's proposed amendment to paragraph #1 of the "Calculation of the Value of the Pumping Power to be Supplied to the Bear Canyon Pump Stations" portion of Exhibit A to the referenced agreement. This amendment is now appropriate because the hourly weighted daily market prices for electricity at the NP15 EZ GEN DA LMP as reported by ICE are no longer reliably available and are now judged to be less representative than those prices made available from CAISO.

The change is proposed to become effective as of the first of October 2010 and to continue through the current term of Exhibit A which ends on June 30, 2012.

If the above fairly represents your understanding of the conditions of this amendment, please sign as indicated and return.

KÉVIN CUNNINGHAM

Manager, Geothermal Facilities Northern California Power Agency

Date _//- 8-10

Attachment

Mike ROGERS

MIKE ROGERS Senior Vice President, Geothermal Region CALPINE CORPORATION

Date 11/30/2010

Paragraph #1 in the section titled: "Calculation of the Value of the Pumping Power to be Supplied to the Bear Canyon Pump Stations" of Exhibit A of the "Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project" as most recently amended effective July 1, 2009 is replaced to read as follows:

"1. For the period October 1, 2010 through June 30, 2012, the value of the electricity being used by the Parties to the Bear Canyon Pump Stations each month will be calculated by using the simple mathematical average of the hourly weighted daily market prices for electricity at the CAISO Day Ahead TH NP15 GEN-APND."

ATTACHMENT TO LETTER AGREEMENT OF 10-28-10 SIGNED BY KEUN CHNNINGHAM SE NCPA 11-8-10 AND BY MIKE ROGERS OF CALPANE

AMENDMENT TO THE SECOND AMENDMENT AND RESTATEMENT OF THE STEAM SUPPLIERS JOINT OPERATING AGREEMENT

SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT (SEGEP)

THIS AMENDMENT ("**Amendment**") to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project ("**Agreement**"), is entered into and dated as of the 2nd day of March, 2018, by and between NORTHERN CALIFORNIA POWER AGENCY, a California joint powers authority and public entity ("**NCPA**"), and CALPINE CORPORATION, a Delaware corporation ("**Calpine**"), referred to herein individually as "Party" and collectively as the "Parties."

RECITALS

A. WHEREAS, the Parties originally entered into a Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project on July 25, 1995, which established and provided for certain terms and conditions relating to their participation in and responsibility for the operation of that portion of the Southeast Geysers Effluent Pipeline Project ("**Project**") which commences at the Point-of-Delivery and terminates at The Geysers Terminus; and

B. WHEREAS, the Parties first amended that Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project on December 20, 2001 to recognize that Calpine had acquired the geothermal interests of PG&E and Unocal at The Geysers and therefore owned a 2/3 interest in all of the Steam Suppliers Facilities of the Project, to recognize that NCPA had entered into an agreement with Lake County Sanitation District to fund Basin 2000 Facilities to deliver additional effluent to the Project, and to provide how the Project Water was to be distributed among other issues; and

C. WHEREAS, the Parties entered into the Agreement on September 18, 2003 to amend and restate certain terms and conditions relating to the Parties' participation in the Project, re-allocate the Parties' rights to the Project Water, and agree that each Parties' share of the monthly electricity costs needed to pump the Project Water would be equal to its percentage of the Project Water actually received for that month; and

D. WHEREAS, Section 5.1.2 of the Agreement states that "[t]he Party required to supply the power to operate the three Bear Canyon Pump Stations in order to deliver the Project Water shall be established from time to time by the Parties", Section 6.5 of the Agreement states that "[e]ach Party's share of the pumping power costs shall be equal to its percentage of Project Water actually received for that month", and Exhibit A of the Agreement ("**Exhibit A**")

identified the Parties' agreed-upon statement of the value of the electricity that NCPA would provide to pump the Project Water, specifically that NCPA would provide all electricity to operate the three Bear Canyon Pump Stations at a set price for the period April 01, 2003 through December 31, 2006; and

E. WHEREAS, the Parties agreed by letters dated December 20, 2006 to amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

F. WHEREAS, the Parties agreed by letter dated June 26, 2008 to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

G. WHEREAS, the parties agreed by letter dated June 1, 2009 ("2009 Letter Agreement") to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and also to extend the term of Exhibit A for an additional 36 months; and

H. WHEREAS, between 2012 and the present, the Parties have agreed upon their relative responsibility for the electricity costs needed to operate the Bear Canyon Pump Stations in connection with the yearly budgeting process for Project operations and maintenance ("O&M") expenses, and have each year executed written agreements approving the Project's O&M budget (which includes line items for electricity costs for the Bear Canyon Pump Stations as well as the Calpine Share (as defined below)); and

I. WHEREAS, the Parties now wish to revise the terms of the Agreement to require that NCPA provide the entire power supply for the Bear Canyon Pump Stations except in outage situations, and that Calpine compensate NCPA for its relative share of such electricity costs at an agreed-upon index price.

AGREEMENT

THEREFORE, in consideration of the promises and the mutual agreements contained herein, the Parties agree as follows:

- 1. <u>Definitions</u>. Capitalized terms used and not defined herein shall have the meanings set forth in the Agreement.
- 2. <u>Term and Termination</u>. The term of Exhibit A as revised by this Amendment shall begin on the date this Amendment is executed and extend for two (2) years from that date; provided that either Party in its sole discretion may elect to revert to the prior terms of Exhibit A (as set forth in the 2009 Letter Agreement) by providing thirty (30) written notice to the other Party.

3. <u>Supply of Power to the Bear Canyon Pump Stations</u>. Exhibit A to the Agreement is replaced and superseded in its entirety with the following:

The supply of electricity to power the Bear Canyon Pump Stations shall be as follows:

- A. NCPA shall supply the electricity needed to operate Bear Canyon Pump Stations #1, #2, and #3 (collectively, the "**Bear Canyon Pump Stations**").
- B. If NCPA is temporarily unable to provide electricity to power the Bear Canyon Pump Stations, Calpine will provide backup power service to the Bear Canyon Pump Stations as needed and as available.
- C. On or about the 10th day of each calendar month, NCPA (as Operator) shall provide Calpine with a calculation of the electricity costs to supply the Bear Canyon Pump Stations during the prior month. NCPA shall calculate Calpine's responsibility for such costs ("**Calpine's Cost Responsibility**") using the following formula:

Calpine's Cost Responsibility = ((Electricity Usage x Average Supply Cost) x Calpine Share) + (Electricity Usage x Cost Adder)

For purposes of this calculation, the following definitions apply:

"Electricity Usage" is the amount of electricity (in kWhs) that NCPA used to supply the Bear Canyon Pump Stations during the prior calendar month, less the amount of electricity (if any, in kWhs) that Calpine provided as temporary backup power service to the Bear Canyon Pump Stations during the prior calendar month.

"Average Supply Cost" is the average Locational Marginal Price ("LMP") for the Geysers Plant 1, Unit 2 LMP node during the prior calendar month.

"**Calpine Share**" is the percentage of Project Water that Calpine received in the prior calendar month (as expressed in decimal terms (0.00)). For instance, if Calpine received 40% of the Project Water in a prior month, the Calpine Share for that month would be 0.40.

"Cost Adder" is equal to \$0.00750/kWh (i.e. \$7.50/MWh).

- D. To the extent the Parties disagree as to Calpine's Cost Responsibility for any particular month, the Operating Committee shall attempt to resolve such disagreement. If the Operating Committee is unable to resolve the disagreement, the Parties shall use the dispute resolution procedures set forth in Section 16 of the Agreement.
- 4. <u>No Other Changes</u>. Except as set forth herein, the Agreement, as previously amended, remains in full force and effect.
- 5. <u>Execution and Delivery</u>. This Amendment may be executed in one or more counterparts, all of which will be considered one and the same. This Amendment may be delivered by the electronic exchange of executed signature pages (*e.g.*, by email), and any printed or copied version of any signature page so delivered will have the same force and effect as an originally executed version of such signature page.
- 6. <u>Governing Law</u>. The validity, interpretation, and effect of this Amendment are governed by and will be construed in accordance with the laws of the State of California applicable to contracts made and performed in such state and without regard to conflicts of law doctrines except to the extent that certain matters are preempted by federal law or are governed by the law of the jurisdiction of organization of the respective Parties.

[signature page follows]

IN WITNESS WHEREOF, the Parties hereto, intending to be legally bound hereby, have caused this Amendment to be signed by their respective officers hereunto duly authorized as of the day and year first set forth above.

NORTHERN CALIFORNIA POWER AGENCY CALPINE CORPORATION

	Q. 18 12.1
By:	James > (1 m)
Name:	Bandy S. Howard
Title: _	General Manager
Date: _	3/2/18

By:	SEE	COUNTERPAGE
Name:		
Title:		
Date:		

IN WITNESS WHEREOF, the Parties hereto, intending to be legally bound hereby, have caused this Amendment to be signed by their respective officers hereunto duly authorized as of the day and year first set forth above.

NORTHERN CALIFORNIA POWER AGENCY CALPINE CORPORATION

Ву:	By:
Name:	Name: Andrew Novotny
Title:	Title: Vice President
Date:	Date: 3/6/18

ASSIGNMENT AND ASSUMPTION OF SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT AGREEMENTS

THIS ASSIGNMENT AND ASSUMPTION OF (this "Assignment") is entered into as of $\underline{OECCMBCM}$ 12, 201 (the "Effective Date"), by and between Calpine Corporation, a Delaware corporation, as successor-in-interest to Calpine Geysers Company, L.P., a Delaware limited partnership ("Assignor"), and Geysers Power Company, LLC, a Delaware limited liability company ("Assignee").

RECITALS

A. Reference is made to the those certain Southeast Geysers Effluent Pipeline Project Agreements described on <u>Exhibit A</u> attached hereto (collectively, the "SEGEP Project Agreements"). Pursuant to the SEGEP Project Agreements, Assignor has certain rights and obligations related to the operation of the Southeast Geysers Pipeline Project (the "Project") and certain ownership interests in the Project as more particularly set forth in the SEGEP Project Agreements (collectively, the "SEGEP Project Rights").

B. Assignor desires to assign to Assignee, and Assignee desires to accept from Assignor, all of Assignor's right, title, interest, obligations and liabilities under each of the SEGEP Project Agreements.

NOW, THEREFORE, in consideration of the foregoing, the mutual covenants of the parties and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is hereby agreed as follows:

1. <u>Assignment</u> Assignor hereby assigns to Assignee all of Assignor's right, title, interest, obligations and liabilities under each of the SEGEP Project Agreements.

2. <u>Assumption</u>: Assignee hereby (a) accepts assignment from Assignor of all of the right, title, interest, obligations and liabilities of Assignor under each of the SEGEP Project Agreements; and (b) agrees to assume and perform all of Assignor's obligations under each of the SEGEP Project Agreements and to be bound by all of the provisions of each of the SEGEP Project Agreements.

3. Miscellaneous.

(a) <u>Indemnification</u>. Assignee hereby agrees to protect, hold harmless, indemnify, defend and release Assignor from and against any claims, expenses (including, without limitation, reasonable attorneys' fees and litigation costs), liabilities or obligations of Assignor that arise in connection with the SEGEP Project Agreements and Project on or after the Effective Date. Assignor hereby agrees to protect, hold harmless, indemnify, defend and release Assignee from and against any claims, expenses (including, without limitation, reasonable attorneys' fees and litigation costs), liabilities or obligations of Assignee from and against any claims, expenses (including, without limitation, reasonable attorneys' fees and litigation costs), liabilities or obligations of Assignor which arose in connection with the SEGEP Project Agreements and Project prior to the Effective Date.

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(b) <u>Attorneys' Fees</u>. If any action, suit or proceeding is brought by either party hereto to enforce the terms of this Assignment, the prevailing party shall be entitled to recover from the other party all costs and expenses of the action, suit, or proceeding, including reasonable attorneys' fees, court costs and witness or other professional fees resulting therefrom, whether or not such controversy is litigated or prosecuted to judgment.

(c) <u>Governing Law</u>. The parties hereto acknowledge that this Assignment has been negotiated and entered into in the State of California. The parties hereto expressly agree that this Assignment shall be governed by, interpreted under, and construed and enforced in accordance with the laws of the State of California.

(d) <u>Successors and Assigns</u>. This Assignment shall be binding upon and inure to the benefit of the parties hereto and their heirs, representatives, successors and permitted assigns.

(e) <u>Counterparts</u>. This Assignment may be executed in any number of counterparts, all of which evidence only one agreement, binding on all parties, even though all parties are not signatory to the same counterpart.

(f) <u>Authority</u>. Each of the individuals executing this Assignment on behalf of a party individually represents and warrants that he or she has been authorized to do so and has the power to bind the party for whom they are signing.

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto have executed this Assignment as of the date set forth above.

ASSIGNOR:

CALPINE CORPORATION, a Delaware corporation By: 2001 Name: P10-ALEA COERCICIO Title: REGIONAL VQ 15

ASSIGNEE:

GEYSERS POWER COMPANY, LLC,	
a Delaware limited liability company	
By: James Duesever	
Name: James Kluesener	
Field VICO Dresidon t	

EXHIBIT A

SEGEP PROJECT AGREEMENTS

- That certain Joint Operating Agreement by and among Lake County Sanitation District ("LACOSAN"), Northern California Power Agency ("NCPA"), Union Oil Company of California ("Unocal"), NEC Acquisition Company ("NEC"), Thermal Power Company ("Thermal") and Calpine Geysers Company, L.P. ("Calpine Company") dated as of July 25, 1995, as amended by that certain Amendment No. 1 to Joint Operating Agreement by and among LACOSAN, NCPA and Calpine Corporation ("Calpine") dated as of December 4, 2001, that certain Amendment No. 2 to Joint Operating Agreement by and among LACOSAN, NCPA and Calpine dated as of November 20, 2007, and Third Amendment to Joint Operating Agreement by and among LACOSAN, NCPA and Calpine dated as of March 17, 2009 (as amended, the "SEGEP Joint Operating Agreement.")
- 2. Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement of the Southeast Geysers Effluent Pipeline Project by and between NCPA and Calpine dated as of September 18, 2003, as amended by that certain Amendment to Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement by and between NCPA and Calpine dated as of March 2, 2018, as amended by that certain Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of Southeast Geysers Effluent Pipeline Project) dated to be effective as of January 1, 2007, as amended by that certain Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of Southeast Geysers Effluent Pipeline Project) dated to be effective as of July 1, 2008, as amended by that certain Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of Southeast Geysers Effluent Pipeline Project) dated to be effective as of July 1, 2008, as amended by that certain Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of Southeast Geysers Effluent Pipeline Project) dated to be effective as of July 1, 2008, as amended by that certain Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of Southeast Geysers Effluent Pipeline Project) dated to be effective as of July 1, 2008, as amended by that certain Amendment of Exhibit A (Power Supply and Calculation of Pumping Power Value of Southeast Geysers Effluent Pipeline Project) dated to be effective as of July 1, 2009 (as amended, "Amended and Restated Steam Suppliers Joint Operating Agreement").

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2021 AMENDMENT TO THE SECOND AMENDMENT AND RESTATEMENT OF THE STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT (SEGEP)

This 2021 Amendment ("Amendment") to the "Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project", also referred to as the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project, ("Agreement"), is entered into and dated as of the <u>AGENCY</u>, a California joint powers authority and public entity ("NCPA"), and GEYSERS POWER COMPANY, LLC, a Delaware limited liability company, ("Geysers") (as successor in interest to Calpine Corporation ("Calpine") pursuant to that certain Assignment and Assumption Agreement, dated December 12, 2018), ("Geysers"), referred to herein individually as "Party" and collectively as the "Parties."

RECITALS

A. WHEREAS, NCPA and Calpine's predecessors in interest, including Calpine Geysers Company, L.P., originally entered into a Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project on July 25, 1995, which established and provided for certain terms and conditions relating to their participation in and responsibility for the operation of that portion of the Southeast Geysers Effluent Pipeline Project ("Project") which commences at the Point-of-Delivery and terminates at The Geysers Terminus; and

B. WHEREAS, NCPA and Calpine executed "Amendment No. 1 to the Steam Suppliers Joint Operating Agreement" Southeast Geysers Effluent Pipeline Project on December 20, 2001 to recognize that Calpine had acquired the geothermal interests of PG&E and Unocal at The Geysers known Geothermal Resources Area and therefore owned a 2/3 interest in all of the Steam Suppliers Facilities of the Project, to recognize that NCPA had entered into an agreement with Lake County Sanitation District to fund Basin 2000 Facilities to deliver additional effluent to the Project, and to provide how the Project Water was to be distributed among other issues; and

C. WHEREAS, the NCPA and Calpine entered into the "Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project", also referred to as Second Amendment and Restatement of the Agreement, ("Agreement") on September 18, 2003, to amend and restate certain terms and conditions relating to the participation of NCPA and Calpine in the Project, re-allocate each party's rights to the Project Water, and agree that each party's share of the monthly electricity costs needed to pump the Project Water would be equal to its percentage of the Project Water actually received for that month; and

D. WHEREAS, the NCPA and Calpine entered into a further Amendment (referred to therein as Third Amendment) to the Steam Suppliers Joint Operating Agreement as of November 6, 2007, regarding the solar array facilities owned by NCPA, referred to as the Solar Pumps Project, and its installation, operation, and maintenance; and

E. WHEREAS, Section 5.1.2 of the Agreement states that "[t]he Party required to supply the power to operate the three Bear Canyon Pump Stations in order to deliver the Project Water shall be established from time to time by the Parties", Section 6.5 of the Agreement states that "[e]ach Party's share of the pumping power costs shall be equal to its percentage of Project Water actually received for that month", and Exhibit A of the Agreement ("Exhibit A") identified the Parties' agreed-upon statement of the value of the electricity that NCPA would provide to pump the Project Water, specifically that NCPA would provide all electricity to operate the three Bear Canyon Pump Stations at a set price for the period April 01, 2003 through December 31, 2006; and

F. WHEREAS, NCPA and Calpine agreed by letter dated December 20, 2006, to amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

G. WHEREAS, NCPA and Calpine agreed by letter dated June 26, 2008, to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and the value of the electricity used for that power supply; and

H. WHEREAS, NCPA and Calpine agreed by letter dated June 1, 2009, ("2009 Letter Agreement") to further amend Exhibit A to revise certain of the terms related to the power supply for the Bear Canyon Pump Stations and also to extend the term of Exhibit A for an additional 36 months; and

I. WHEREAS, NCPA and Calpine agreed by letter dated October 28, 2010, to further amend Exhibit A regarding calculation of the Pumping Power to be supplied to the Bear Canyon Pump Stations; and

J. WHEREAS, between 2012 and the present, the Parties have agreed upon their relative responsibility for the electricity costs needed to operate the Bear Canyon Pump Stations in connection with the yearly budgeting process for Project operations and maintenance ("O&M") expenses, and have each year executed written agreements approving the Project's O&M budget

(which includes line items for electricity costs for the Bear Canyon Pump Stations as well as the Geysers Share (as defined below)); and

K. WHEREAS, NCPA and Calpine executed an Amendment to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement on March 2, 2018, requiring that NCPA provide the entire power supply for the Bear Canyon Pump Stations, except in outage situations, and Calpine would compensate NCPA for its share of the electricity costs at the agreed upon price stated therein, for a two-year term; and

L. WHEREAS, on December 12, 2018, Calpine Corporation, a Delaware corporation, as successor-in-interest to Calpine Geysers Company, L.P., a Delaware limited partnership, and Geysers Power Company, LLC, a Delaware limited liability company, executed an Assignment and Assumption of Southeast Geysers Effluent Pipeline Project Agreements that assigned to Geysers Power Company, LLC all right, title, interest, obligations and liabilities under the SEGEP Project Agreements defined in Exhibit A thereto as the Joint Operating Agreement as amended, and the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement of the Southeast Geysers Effluent Pipeline Project as amended, and Geysers Power Company, LLC accepted the assignment of all right, title, interest, obligations and liabilities under the SEGEP Project Agreements; and

M. WHEREAS, the Parties wish to further revise the terms of Exhibit A to the Agreement to memorialize the understanding upon which the Parties have been performing and which requires that NCPA provide the entire power supply for the Bear Canyon Pump Stations except in outage situations, and that Geysers compensate NCPA for its relative share of such electricity costs at a revised agreed-upon index price; and

NOW THEREFORE, in consideration of the promises and the mutual agreements contained herein, the Parties agree as follows:

1. <u>Definitions</u>.

a. Capitalized terms used and not defined herein shall have the meanings set forth in the Agreement.

b. Excluding the Preamble and the Recitals, all references to "Calpine" in the Agreement shall be deleted and amended and replaced with "Geysers."

2. <u>Term and Termination</u>. The term of Exhibit A as revised by this Amendment shall begin on the date this Amendment is executed and extend two (2) years from that date; provided that either Party in its sole discretion may elect to its revise terms and conditions, terminate the amendment, or revert to the prior terms of Exhibit A (as set forth in the 2009 Letter Agreement) by providing a minimum of thirty (30)

days written notice prior to the execution date to the other Party. The Parties further agree that the Parties have been performing pursuant to the calculation and payment terms and conditions set forth in Section 3 of this Amendment since March 2, 2018.

3. <u>Supply of Power to the Bear Canyon Pump Stations</u>. Exhibit A to the Agreement is replaced and superseded in its entirety with the following:

The supply of electricity to power the Bear Canyon Pump Stations shall be as follows:

- A. NCPA shall supply the electricity needed to operate Bear Canyon Pump Stations #1, #2, and #3 (collectively, the "Bear Canyon Pump Stations").
- B. If NCPA is temporarily unable to provide electricity to power the Bear Canyon Pump Stations, Geysers will provide backup power service to the Bear Canyon Pump Stations as needed and as available.
- C. On or about the 10th day of each calendar month, NCPA (as Operator) shall provide Geysers with a calculation of the electricity costs to supply the Bear Canyon Pump Stations during the prior month. NCPA shall calculate Geysers' responsibility for such costs ("Geysers' Cost Responsibility") using the following formula:

Geysers' Cost Responsibility = (Electricity Usage x Average Supply Cost x Geysers Share) + (Electricity Usage x Cost Adder x Electricity Percentage)

For purposes of this calculation, the following definitions apply:

"Electricity Usage" is the amount of electricity (in KWhrs) that NCPA used to supply the Bear Canyon Pump Stations during the prior calendar month, less the amount of electricity (if any, in KWhrs) that Geysers provided as temporary backup power service to the Bear Canyon Pump Stations during the prior calendar month.

"Average Supply Cost" is the average Locational Marginal Price ("LMP") for the Geysers Plant 1, Unit 2 LMP node during the prior calendar month.

"Geysers Share" is the percentage of Project Water that Geysers received in the prior calendar month (as expressed in decimal terms (0.00)). For instance, if Geysers received 40% of the Project Water in a prior month, the Geysers Share for that month would be 0.40.

"Cost Adder" is equal to \$0.00750/kWh (i.e. \$7.50/MWh). "Electricity Percentage" is equal to 50% or 0.50. It refers to the amount of electricity that generally was provided by Geysers before the revision was established.

- D. To the extent the Parties disagree as to Geysers' Cost Responsibility for any particular month, the Operating Committee shall attempt to resolve such disagreement. If the Operating Committee is unable to resolve the disagreement, the Parties shall use the dispute resolution procedures set forth in Section 16 of the Agreement.
- 4. <u>No Other Changes</u>. Except as set forth herein, the Agreement, as previously amended, remains in full force and effect.
- 5. <u>Execution and Delivery</u>. This Amendment may be executed in one or more counterparts, all of which will be considered one and the same. This Amendment may be delivered by the electronic exchange of executed signature pages (e.g., by email), and any printed or copied version of any signature page so delivered will have the same force and effect as an originally executed version of such signature page.
- 6. <u>Governing Law</u>. The validity, interpretation, and effect of this Amendment are governed by and will be construed in accordance with the laws of the State of California applicable to contracts made and performed in such state and without regard to conflicts of law doctrines except to the extent that certain matters are preempted by federal law or are governed by the law of the jurisdiction of organization of the respective Parties.

[Signature page follows]

IN WITNESS WHEREOF, hereto, intending to be legally bound hereby, have caused this Amendment to be signed by their respective officers hereunto duly authorized as of the day and year first set forth above.

NORTHERN CALIFORNIA POWER AGENCY **GEYSERS POWER COMPANY, LLC** DocuSigned by: Robert Parker Komo By: By: scorc4roo72 Signature DS Randy S. Howard RA **Robert Parker** Name Name General Manager Vice President Title Title 2/1/21 1/21/2021 Date Date

Approved as to form:

Jane E. Luckhardt, General Counsel



Certificate Of Completion Envelope Id: 35EF68CCD2214480B0C4E2A43BE3567F Status: Completed Subject: Please DocuSign: 2021_Amendment_to_SEGEP_Steam_Suppliers_Joint_Operating_Agreement (00000005).pdf Source Envelope: Document Pages: 6 Signatures: 1 Envelope Originator: Certificate Pages: 2 Initials: 1 Elise McGuire AutoNav: Enabled elise.mcguire@calpine.com EnvelopeId Stamping: Disabled IP Address: 204.209.130.5 Time Zone: (UTC-06:00) Central Time (US & Canada) **Record Tracking** Holder: Elise McGuire Status: Original Location: DocuSign 1/20/2021 6:07:12 PM elise.mcguire@calpine.com Signature **Signer Events** Timestamp 0.8 Sent: 1/20/2021 6:22:35 PM **Rosemary Antonopoulos** RA Rosemary.Antonopoulos@calpine.com Viewed: 1/20/2021 9:02:43 PM VP & Assistant General Counsel Signed: 1/20/2021 9:02:59 PM **Calpine Corporation** Signature Adoption: Pre-selected Style Security Level: Email, Account Authentication Using IP Address: 76.218.102.65 (None) **Electronic Record and Signature Disclosure:** Not Offered via DocuSign DocuSigned by: Robert Parker Sent: 1/20/2021 9:02:59 PM Robert Parker Robert.Parker@calpine.com Viewed: 1/21/2021 9:13:17 AM 800EC4E0072C44B **VP** Operations Signed: 1/21/2021 9:13:25 AM **Calpine Corporation** Signature Adoption: Pre-selected Style Security Level: Email, Account Authentication Using IP Address: 204.209.159.5 (None) Electronic Record and Signature Disclosure: Not Offered via DocuSign In Person Signer Events Signature Timestamp **Editor Delivery Events** Status Timestamp **Agent Delivery Events** Status Timestamp **Intermediary Delivery Events** Status Timestamp **Certified Delivery Events** Status Timestamp **Carbon Copy Events Status** Timestamp Witness Events Signature Timestamp **Notary Events** Signature Timestamp **Envelope Summary Events Status** Timestamps Hashed/Encrypted Envelope Sent 1/20/2021 6:22:35 PM **Certified Delivered** Security Checked 1/21/2021 9:13:17 AM Signing Complete Security Checked 1/21/2021 9:13:25 AM

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Status

2023 AMENDMENT TO THE SECOND AMENDMENT AND RESTATEMENT OF THE STEAM SUPPLIERS JOINT OPERATING AGREEMENT SOUTHEAST GEYSERS EFFLUENT PIPELINE PROJECT (SEGEP)

This 2023 Amendment ("Amendment") to the Second Amendment and Restatement to the "Amended and Restated Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project", also referred to as the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project, ("Agreement"), is entered into and dated as of the _____ day of January, 2023, by and between NORTHERN CALIFORNIA POWER AGENCY, a California joint powers authority and public entity ("NCPA"), and GEYSERS POWER COMPANY, LLC a Delaware limited liability company ("Geysers") (as successor in interest to Calpine Corporation ("Calpine") pursuant to that certain Assignment and Assumption Agreement, dated December 12, 2018), referred to herein individually as "Party" and collectively as the "Parties."

RECITALS

A. WHEREAS, NCPA and Calpine's predecessors in interest, including Calpine Geysers Company, L.P., originally entered into a Joint Operating Agreement Southeast Geysers Effluent Pipeline Project on July 25, 1995, as amended from time to time, which established and provided for certain terms and conditions relating to their participation in and responsibility for the operation of that portion of the Southeast Geysers Effluent Pipeline Project ("Project") that commences at the Point-of-Delivery and terminates at The Geysers Terminus; and

B. WHEREAS, effective January 28, 2021, NCPA and the Geysers executed a "2021 Amendment to the Second Amendment and Restatement of the Steam Suppliers Joint Operating Agreement Southeast Geysers Effluent Pipeline Project", which extended the term of Exhibit A to the Agreement until January 28, 2023 (i.e. two years from the date of such amendment) and also described the parties' agreement with respect to the supply of power to the Bear Canyon Pump Stations; and

C. WHEREAS, the Parties wish to revise the terms of Exhibit A to the Agreement to extend the term through September 17, 2028; and

NOW THEREFORE, in consideration of the promises and mutual agreements contained herein, the Parties agree as follows:

1. <u>Definitions</u>.

a. Capitalized terms used and not defined herein shall have the meanings set forth in the Agreement.

b. Excluding the Preamble and the Recitals, all references to "Calpine" in the Agreement shall be deleted and amended and replaced with "Geysers."

- 2. <u>Term and Termination</u>. The term of Exhibit A as revised by this Amendment shall be extended through September 17, 2028.
- 3. <u>No Other Changes</u>. Except as set forth herein, the Agreement, as previously amended, remains in full force and effect.
- 4. <u>Execution and Delivery</u>. This Amendment may be executed in one or more counterparts, all of which will be considered one and the same. This Amendment may be delivered by the electronic exchange of executed signature pages (e.g., by email), and any printed or copied version of any signature page so delivered will have the same force and effect as an originally executed version of such signature page.
- 5. <u>Governing Law</u>. The validity, interpretation, and effect of this Amendment are governed by and will be construed in accordance with the laws of the State of California applicable to contracts made and performed in such state and without regard to conflicts of law doctrines except to the extent that certain matters are preempted by federal law or are governed by the law of the jurisdiction of organization of the respective Parties.

[Signature page follows]

IN WITNESS WHEREOF, hereto, intending to be legally bound hereby, have caused this Amendment to be signed by their respective officers hereunto duly authorized as of the day and year first set forth above.

NORTHERN CALIFORNIA POWER AGENCY GEYSERS POWER COMPANY, LLC

By:		By:	
-	Signature	-	Signature
	Name	-	Name
-	Title	-	Title
-	Date	-	Date

Approved as to form:

Jane E. Luckhardt, General Counsel



Commission Staff Report – DRAFT

COMMISSION MEETING DATE: January 19, 2023

SUBJECT: Find the proposed activities of the Combustion Turbine Facilities 2023 Outages qualify for CEQA categorical exemptions found in the CEQA Guidelines Sections 15301(b), 15302(c), 15309 and 15311(c) (Classes 1, 2 and 9 as described in Title 14 of the California Code of Regulations at §§15000 *et seq.*).

AGENDA CATEGORY: Discussion/Action

FROM:	Michael DeBortoli	METHOD OF SELECTION:
	Assistant General Manager	Competitive Pricing Process
Division:	Generation Services	If other, please describe:
Department:	Combustion Turbines	

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

RECOMMENDATION:

Approve Resolution 23-XX finding the proposed activities of the Combustion Turbine Facilities 2023 Outages qualify for CEQA categorical exemptions found in the CEQA Guidelines Sections 15301(b), 15302(c), 15309 and 15311(c) (Classes 1, 2 and 9 as described in Title 14 of the California Code of Regulations at §§15000 *et seq.*).

BACKGROUND:

In accordance with proper maintenance of the Combustion Turbine facilities, NCPA's Combustion Turbine facilities will be conducting their annual outages in February and March 2023. The Scope of Work for the Combustion Turbine Facilities 2023 Outages include the following:

CT1 Lodi February 2023 Outage:

- 1. Fire System Testing
- 2. Gas Compressor Maintenance
- 3. CT Borescope Inspection
- 4. CT Inlet Filters Replacement
- 5. Scaffold Support
- 6. BOP Maintenance
- 7. Electrical Relay Testing
- 8. Rental Support Equipment

CT1 Alameda March 2023 Outage:

- 1. Fire System Testing
- 2. Gas Compressor Maintenance
- 3. CT Borescope Inspection
- 4. CT Inlet Filters Replacement
- 5. Scaffold Support
- 6. BOP Maintenance
- 7. Electrical Relay Testing
- 8. Rental Support Equipment

All of the work described above involves maintaining existing equipment, and is regular and recurring work.

FISCAL IMPACT:

Approval of these CEQA findings has no direct fiscal impact to the Agency.

ENVIRONMENTAL ANALYSIS:

These activities have already been subject to CEQA equivalent review. The proposed activities of the Combustion Turbine Facilities 2023 Outages are exempt from the provision of the California Environmental Quality Act (CEQA) pursuant to Sections 15301(b), 15302(c), 15309 and 15311(c) (Classes 1, 2 and 9 as described in Title 14 of the California Code of Regulations at §§15000 *et seq.*). This project consists of routine, recurring maintenance to the existing equipment listed above. This project will not change the function, size or operation of the equipment. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Alameda County and San Joaquin County on January 14, 2014. Thus, this project conforms to these exemptions.

January 19, 2023 Page 3

COMMITTEE REVIEW:

Pending Committee review and approval.

AFTER FACILITIES APPROVAL: On January 4, 2023 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments (1):

Resolution 23-XX

RESOLUTION 23-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING FINDING 1) THE PROPOSED ACTIVITIES QUALIFY FOR CEQA CATEGORICAL EXEMPTIONS FOUND IN THE CEQA GUIDELINES SECTIONS 15301(B), 15302(C), 15309 AND 15311(C) (CLASSES 1, 2 AND 9 AS DESCRIBED IN TITLE 14 OF THE CALIFORNIA CODE OF REGULATIONS AT §§15000 *ET SEQ*.).

(reference Staff Report #XXX:23)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains on behalf of the project owners a Combustion Turbine facility near Alameda, CA, consisting of two power plants and a Combustion Turbine facility near Lodi, CA, consisting of one power plant; and

WHEREAS, in accordance with proper maintenance of the Combustion Turbine facilities, NCPA's Combustion Turbine facilities will be conducting their annual outages in February and March 2023; and

WHEREAS, NCPA staff have determined that work for this project involves maintaining existing equipment and is regular and recurring work; and

WHEREAS, these activities have already been subject to CEQA equivalent review. The proposed activities of the Combustion Turbine facilities annual outages are exempt from the provision of the California Environmental Quality Act (CEQA) pursuant to Sections 15301(b), 15302(c), 15309 and 15311(c) of the CEQA Guidelines (Class 1, 2 and 9 as described un Title 14 of the California Code of Regulations at §§15000 *et seq.*). This project consists of routine, recurring maintenance to the existing equipment. This project will not change the function, size or operation of the equipment. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in Alameda County and San Joaquin County on January 14, 2014. Thus, this project conforms to these exemptions; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency approves finding the proposed activities qualify for CEQA categorical exemptions found in the CEQA Guidelines Sections 15301(b), 15302(c), 15309 and 15311(c) (Classes 1, 2 and 9 as described in Title 14 of the California Code of Regulations at §§15000 *et seq.*).

	PASSED, ADOPTED and APPRC	OVED this	day of	, 2023, by t	he following vote
n rol	l call:				-
		Vote	<u>Abstained</u>	<u>Absent</u>	
	Alameda				
	San Francisco BART				
	Biggs				
	Gridley				
	Healdsburg				
	Lodi				
	Lompoc				
	Palo Alto				
	Port of Oakland				
	Redding				
	Roseville		<u> </u>		
	Santa Clara				
	Shasta Lake				
	Truckee Donner				
	Ukiah				
	Plumas-Sierra				

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Commission Staff Report – DRAFT

COMMISSION MEETING DATE: January 19, 2023

SUBJECT: Combustion Turbine Facilities 2023 Outages; Applicable to the following: Combustion Turbine Alameda Facility Units 1 and 2 and Combustion Turbine Lodi Facility

AGENDA CATEGORY: Discussion/Action

FROM:	Michael DeBortoli METHOD OF SEI				ECTION:	
	Assistant General Manager		ager Competitive P	Competitive Pricing Process		
Division:	Generation Servi	ces	lf other, please des	cribe:		
Department:	Combustion Turb	ines				
	MEMBERS:					
All Members 🗆 C			City of Lodi	\boxtimes	City of Shasta Lake	
Alameda Municipal Power 🛛 🛛 Cit		City of Lompoc	\boxtimes	City of Ukiah	\boxtimes	
San Frar	San Francisco Bay Area City		City of Palo Alto		Plumas-Sierra REC	\boxtimes
	City of Biggs	\boxtimes	City of Redding		Port of Oakland	
	City of Gridley	\boxtimes	City of Roseville		Truckee Donner PUD	
Cit	y of Healdsburg	\boxtimes	City of Santa Clara	\boxtimes	Other	
			If other, please specify			

RECOMMENDATION:

Approve Resolution 23-XX authorizing the Combustion Turbine Facilities 2023 Outages and delegate authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the outages in accordance with NCPA Purchasing Policies and Procedures, without further approval by the Commission, for a total cost not exceed \$464,500, to be funded from the Maintenance Reserve.

BACKGROUND:

NCPA's Combustion Turbine Facilities have planned outages scheduled from February 1, 2023 through February 28, 2023 (CT1 Lodi) and March 1, 2023 through March 31, 2023 (CT1 Alameda) for work related to the 2023 outages. During the outages, the CT1 Facilities team will complete preventative maintenance work on equipment that cannot be worked on while the units are operating without affecting the output of the facility. NCPA will hire a number of contractors to perform work during the 2023 outages.

Listed below are highlights of work to be performed as a part of the CT1 Lodi February 2023 outage:

- 1. Fire System Testing
- 2. Gas Compressor Maintenance
- 3. CT Borescope Inspection
- 4. CT Inlet Filters Replacement
- 5. Scaffold Support
- 6. BOP Maintenance
- 7. Electrical Relay Testing

Listed below are highlights of work to be performed as a part of the CT1 Alameda March 2023 outage:

- 1. Fire System Testing
- 2. Gas Compressor Maintenance
- 3. CT Borescope Inspection
- 4. CT Inlet Filters Replacement
- 5. Scaffold Support
- 6. BOP Maintenance
- 7. Electrical Relay Testing

FISCAL IMPACT:

CT1 2023 Outa	ge Costs
Balance of Plant	\$123,500
Electrical Systems	\$110,000
Gas Turbine	\$146,000
Stacks	\$15,000
Incidentals	\$15,000
Water Treatment	\$5,000
Contingency	\$50,000
	\$464,500

The budgetary funds to complete the CT Facilities 2023 Outages will come from the precollected funds in the Maintenance Reserve (Account # 265-010-005-610-044-002). A table detailing the impact of these expenses on the Maintenance Reserve is included below.

Balances	
Maintenance Reserve Balance (6/30)	\$3,035,456
FY23 Contributions	\$625,000
Outage Work	(\$464,500)
End of FY23 Balance	\$3,195,956

SELECTION PROCESS:

In accordance with NCPA's procurement policies and procedures, NCPA will solicit bids to perform the work required for this Project. Bids by qualified providers will be evaluated and awarded to the contractors 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:

The California Environmental Quality Act (CEQA) findings for this project are addressed in SR: XXX:23.

COMMITTEE REVIEW:

Pending Committee review and approval.

AFTER FACILITIES APPROVAL: On January 4, 2023 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments:

Resolution 23-XX

RESOLUTION 23-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE COMBUSTION TURBINE FACILITIES 2023 OUTAGES

(reference Staff Report #XXX:23)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains the Combustion Turbine Facilities (CT1 Alameda and CT1 Lodi) on behalf of the project participants; and

WHEREAS, the Combustion Turbine Facilities have planned outages scheduled from February 1, 2023 through February 28, 2023 (CT1 Lodi) and March 1, 2023 through March 31, 2023 (CT1 Alameda), for work related to the 2023 Outages; and

WHEREAS, during the outages, the CT1 Facilities team will complete preventative maintenance work on equipment that cannot be worked on while the unit is operating without affecting the output of the facility. NCPA will hire a number of contractors to perform work during the outages; and

WHEREAS, on January 4, 2023 the Facilities Committee reviewed and endorsed the recommendation above for Commission approval; and

WHEREAS, The California Environmental Quality Act (CEQA) findings for this project are addressed in SR: XXX:23; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the Combustion Turbine Facilities 2023 Outages and delegate authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the outages in accordance with NCPA Purchasing Policies and Procedures, without further approval by the Commission, for a total cost not exceed \$464,500, to be funded from the Maintenance Reserve.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2023, by the following vote on roll call:

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

ATTEST: ASSISTANT SECRETARY



Commission Staff Report

COMMISSION MEETING DATE: February 23, 2023

SUBJECT: Revised Deposit Calculation for Schedule Coordination Program Agreement, Third Phase Agreements, Market Purchase Program, Gas Purchase Program, NCPA Green Power Program, and Single Member Services Agreements

AGENDA CATEGORY: Discussion/Action

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

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

RECOMMENDATION:

Approve Resolution 23-XXX authorizing revised deposit calculation requirements for the Schedule Coordination Program Agreements, Third Phase Agreements, Market Purchase Program, Gas Purchase Program, NCPA Green Power Program, and Single Member Service Agreements (collectively "Programs") and approving the General Manager or his designee to temporarily implement revised Schedule Coordination Program Agreements deposit requirements through 2023 to allow time for the members to vet and approve changes to the program agreement terms. The revised Schedule Coordination Program Agreements deposit calculation will be based on the highest two months of estimated CAISO costs, and the revised deposit calculation for the other Programs will be based on the highest single-month contract cost(s) plus the two highest months of negative Mark-to-Market.

BACKGROUND:

The Northern California Power Agency (NCPA) provides various Power Management services to its members pursuant to various program-based agreements that are signed by the participating member. These agreements provide for the obligation of the participating member to cover all costs and liabilities incurred through the program, thereby shielding other participating and non-participating members from the procurement costs and risks of the respective program. The identified agreements are:

Amended and Restated Scheduling Coordination Program Agreement (SCPA)

Scheduling Coordination Services include but are not limited to, the submission of schedules and bids on behalf of members, obtaining and maintaining settlement quality meter data, performing outage coordination for planned and unplanned outages, validation and reconciliation of CAISO settlement charges and credits, and allocating CAISO charges and credits among the members.

Third Phase Agreement (TPA) "Power Purchase Agreements"

Participants in a TPA have executed the Amended and Restated Facilities Agreement which establishes the framework under which Project Agreements are created for the development, design, financing, construction, and operation of specific NCPA Projects including entering into a Power Purchase Agreement (PPA) with a counterparty on behalf of a member participant. For NCPA to fulfill the obligations of the PPA, member participants agree to take delivery of and pay for such electric capacity and energy and to pay NCPA for all costs it incurs for undertaking the foregoing activities.

Market Purchase Program (MPP)

The MPP is a joint action activity under which NCPA is enabled to transact energy-related products to meet a member participant's need for a period of up to five (5) years forward. Transaction activities are performed using Commission-approved transaction instruments in accordance with the Amended and Restated Market Purchase Program Agreement.

Gas Purchase Program (GPP)

The GPP is a joint action activity under which NCPA is enabled to purchase natural gas supply to meet a member participant's need for a period of up to five (5) years forward. Transaction activities are performed using Commission-approved transaction instruments in accordance with the Natural Gas Program Agreement.

Revised Deposit Calculation for Power Management Services Programs February 23, 2023 Page 3

NCPA Green Power Program (NGPP)

The NGPP was established to allow a member participant to jointly pursue eligible renewable resources in the form of Power Purchase Agreements, Project Agreements, or through funding of project development activities that result in Power Purchase Agreements or similar types of agreements that count toward Renewable Portfolio Standard obligations.

Single Member Services Agreement (SMSA)

A member participant in a SMSA has executed the Amended and Restated Facilities Agreement which establishes the framework under which Project Agreements are created for the development, design, financing, construction, and operation of specific NCPA Projects including entering into a SMSA providing Member Advisory Services, Agency Services, Pooled Subscription Services, and Power Procurement Services.

Security Deposit Requirements

Section 10.1 of the SCPA details the following Security Deposit Requirements:

"...a Participant shall deposit into the Balancing Account held by NCPA an amount equal to the highest three (3) months of estimated CAISO invoices for the succeeding twelve (12) months..."

The contractual language for the Security Deposit Requirements for the other non-SCPA Programs have similar contractual language stating:

"...a Participant shall insure that sufficient Security Deposit funds have been deposited with and are held by NCPA equal to the highest three (3) months of estimated [Project Costs / Commodity Costs, etc]..."

NCPA's 2021-2026 Strategic Plan identified a goal to review the reserve and program security deposit policies to ensure collected balances are meeting the emerging market risks and opportunities. In conjunction with that goal and the member sentiments about Deposit Requirements for the programs, staff issued an RFQ for a Reserve and Program Security Deposit Study in May 2022. NCPA selected Utility Financial Solutions (UFS) to perform the study and work commenced in June. Over the last few months, staff met several times with UFS providing documentation, answering questions, and reviewing each project reserve and program deposit requirement. The draft recommendations were reviewed with the Finance Committee at a Special Meeting in September prior to reviewing this study with the Facilities and LEC Project Participant Committee over the months of October through December.

The consultant's draft recommendations were based on industry best practices, and in regards to the SCPA program, UFS recommended that NCPA collect the highest two months of estimated CAISO costs (an amount roughly equal to what NCPA is holding today) instead of the three months currently required by the program agreement. This was largely based on NCPA's cash flow with the timing of collections from participants and payments to CAISO.

Revised Deposit Calculation for Power Management Services Programs February 23, 2023 Page 4

Each of the non-SCPA Program related agreements have unique attributes in that:

- 1. Each respective contract has a value; and/or
- 2. Each contract will at some point be scheduled into the CAISO market.

Depending on the terms, a contract's value will move up or down with energy, capacity, and renewable prices. For example, if a contract has a right to buy price at \$50/MWh and forward price curves reflect similar contracts trading at \$70/MWh, the contract's value is \$20/MWh more than what was originally negotiated, meaning the contract is worth more creating a positive mark-to-market value for the member participant. If the member were to default on payment, NCPA would sell the product to the market at a gain. The same concept applies if forward energy prices reflected \$30/MWh. The same contract would reflect a negative mark-to-market value. In either circumstance, the member participant is obligated to pay the counterparty the number of delivered units times \$50/MWh. If the actual price is higher or lower at the time the contract is scheduled into the CAISO market, the participant will net the difference. As such, it is excessive to calculate the deposit based on the three highest months without taking into account the mark-to-market attribute.

In discussions with the consultant (UFS) who performed the Reserve and Security Deposit Study, they agreed that NCPA was holding too much on deposit for the non-SCPA Programs. As a best practice, they recommended that NCPA hold the highest, single largest month of contract cost(s) plus the two highest months of negative mark-to-market contract costs over the next twelve month period.

The Facilities Committee and NCPA recommend the Commission temporarily implement the revised deposit calculation requirements for the SCPA and other Programs until the respective agreements have been amended by the Commission and members'/participants' governing bodies. The Committee also recommended that the Programs' deposit calculation requirements be updated biannually during the first and third quarters and/or at the time a market purchase(s) is completed.

	Max Month 1	Max Month 2	Total Load	Total Revised	Current SCPA	Estimated	
Members	(2023 Budget)	(2023 Budget)	Aggregation	SCPA Deposit	Balance	Change	
ALA	\$ 1,354,784	\$ 1,208,803	\$ 2,563,587	\$ 2,563,587	\$ 2,610,855	\$ (47,268)	
BART	1,686,020	1,647,892	3,333,912	3,333,912	2,808,300	\$ 525,612	
BIG	85,146	66,288	151,434	152,821	118,555	\$ 34,266	
GRI	89,204	72,675	161,879	172,050	238,895	\$ (66,845)	
HEA	258,367	243,884	502,251	510,757	583,623	\$ (72,866)	
LOD	2,117,877	2,033,209	4,151,086	4,200,275	3,606,709	\$ 593,566	
LOM	477,897	432,156	910,053	920,593	1,076,108	\$ (155,514)	
PAL	3,009,888	2,985,292	5,995,180	5,995,180	6,551,438	\$ (556,258)	
PLU	569,626	560,469	1,130,095	1,134,163	903,506	\$ 230,658	
POR	549,712	547,516	1,097,228	1,097,228	1,180,022	\$ (82,794)	
SNCL	6,009,439	5,933,225	11,942,664	11,942,664	13,665,423	\$ (1,722,759)	
UKI	523,116	414,791	937,907	947,153	917,671	\$ 29,481	
Subtotal Member Depos	sits		\$ 32,877,276	\$ 32,970,383	\$ 34,261,105	\$ (1,290,723)	

The following table illustrates the estimated change in individual member SCPA Deposit Requirements using the new methodology:

The tables below compare the Original Methodology to the Revised Methodology resulting in an estimated total increase of approximately \$7.9 million to the Members' GOR Uncommitted Fund balances:

					Origina	al Methodo	logy					
Partcipant	GOR Beginning Balance	Interest Income	Deposits	Withdrawals	GOR Ending Balance	Single Member Service Agreement	Market Purchase Program	MPP Letter of Credit	NCPA Green Purchase Program	Gas Purchase Program	Third Phase Agreement	GOR Uncommitted Funds
Alameda	\$30,301	\$127	\$0	\$0	\$30,428	\$0	\$0	\$0	\$0	ŚO	\$18,946	\$11,482
BART	\$11,321,350	\$47,403	\$0	\$0	\$11,368,753	\$143,460	\$938,908	\$0	\$182,766	\$0	\$200,600	\$9,903,019
Biggs	\$633,198	\$2,650	\$0	\$0	\$635,847	\$0	\$70,884	\$0	\$0	\$11.362	\$10,600	\$543,001
Gridley	\$273,158	\$1,143	\$0	\$0	\$274,301	\$0	\$55,572	\$0	\$74.599	\$42,349	\$31,805	\$69.977
Healdsburg	\$5,912,910	\$24,743	\$0	\$0	\$5,937,654	\$0	\$45,456	\$0	ŚO	\$95,909	\$174,911	\$5,621,378
Lodi	\$12,471,043	\$50,476	\$308,500	\$2,518,292	\$10,311,727	\$0	\$1,833,767	\$0	\$0	\$676,188	\$874,664	\$6,927,108
Lompoc	\$14,024,745	\$58,722	\$0	\$0	\$14,083,467	\$0	\$220,387	\$0	\$0	\$154,481	\$125,372	\$13,583,227
Palo Alto	\$389,558	\$1,630	\$0	\$0	\$391,189	\$0	\$2,282,736	\$7,000,000	\$0	\$0	\$0	\$5,108,453
Plumas-Sierra	\$1,252,167	\$5,240	\$0	\$0 \$0	\$1,257,407	\$0	\$0	\$0	\$0	\$0	\$0	\$1,257,407
Port of Oakland	\$1,067,652	\$4,472	\$0 \$0	\$0 \$0	\$1,072,124	\$0 \$0	\$354,128	\$0	\$0	\$0 \$0	\$301,694	\$416,302
Redding	\$304.040	\$1,272	\$0 \$0	\$0 \$0	\$305,313	\$0 \$0	\$354,128	\$0 \$0	\$0	\$0 \$0	\$301,054 \$0	\$305.313
Roseville	\$4,017,291	\$16,811	\$0 \$0	\$0 \$0	\$4,034,102	\$0 \$0	\$0	\$0	\$0 \$0	\$0 \$0	\$1,002,990	\$3,031,111
Santa Clara	\$16,515,750	\$68,682	\$0	\$1,030,047	\$15,554,385	\$0 \$0	\$0	\$0	\$0	\$0	\$3,946,143	\$11,608,241
Shasta Lake	\$42,144	\$176	\$0 \$0	\$0	\$42,320	\$0	\$0	\$0	\$0	\$0 \$0	\$0,540,145	\$42,320
Truckee-Donner	\$155,385	\$650	\$0 \$0	\$0	\$156,035	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0	\$156,035
Ukiah	\$7,720,872	\$32,735	\$151.530	\$37,493	\$7,867,644	\$0 \$0	\$204.131	\$0	\$0	\$64.916	\$100.299	\$7,498,297
OKIGIT	Ş7,720,072	<i>Ş32,733</i>	Ş131,330	Ş37, 4 33	Ş7,007,044						Ş100,255	
						\$ 143,460	\$ 6,005,970	\$ 7,000,000	\$ 257,365	\$ 1,045,205	\$ 6,788,025	\$ 66,082,670
					Densier		I					
	GOR				Revise	d Methodo Single	Iogy Market		NCPA	Gas		GOR
Partcipant	Beginning Balance	Interest Income	Deposits	Withdrawals	GOR Ending Balance	Member Service	Purchase Program	MPP Letter of Credit	Green	Purchase Program	Third Phase Agreement	Uncommitted
Alameda	\$30,301	\$127	\$0	\$0	\$30,428	\$0	\$0	\$0	\$0	\$0	\$6,511	\$23.917
BART	\$11,321,350	\$47,403	\$0	\$0	\$11,368,753	\$47,849	\$938,908	\$0	\$63,593	\$0	\$71,564	\$10,246,840
Biggs	\$633,198	\$2,650	\$0	\$0	\$635.847	\$0	\$54,490	\$0	\$0	\$8.290	\$3,579	\$569.488
Gridley	\$273,158	\$1,143	\$0	\$0	\$274,301	\$0	\$55,572	\$0	\$25,151	\$17,349	\$10,736	\$165,493
Healdsburg	\$5,912,910	\$24,743	\$0	\$0	\$5,937,654	\$0	\$45,456	\$0	\$0	\$43,562	\$61,214	\$5,787,422
Lodi	\$12,471,043	\$50,476	\$308,500	\$2,518,292	\$10,311,727	\$0	\$917,958	\$0	\$0	\$271,880	\$306,102	\$8,815,787
Lompoc	\$14,024,745	\$58,722	\$0	\$0	\$14,083,467	\$0	\$89,746	\$0	\$0	\$63,188	\$44,727	\$13,885,807
Palo Alto	\$389,558	\$1,630	\$0	\$0	\$391,189	\$0	\$820,096	\$7,000,000	\$0	\$0	\$0	\$6,571,093
Plumas-Sierra	\$1,252,167	\$5,240	\$0	\$0	\$1,257,407	\$0	\$0	\$0	\$0	\$0	\$0	\$1,257,407
Port of Oakland	\$1,067,652	\$4,472	\$0	\$0	\$1,072,124	\$0	\$232,210	\$0	\$0	\$0	\$105,616	\$734,297
Redding	\$304,040	\$1,272	\$0 \$0	\$0 \$0	\$305,313	\$0	\$252,210	\$0	\$0	\$0 \$0	\$105,010 \$0	\$305,313
Roseville	\$4,017,291	\$16,811	\$0	\$0 \$0	\$4,034,102	\$0	\$0	\$0	\$0	\$0	\$357,820	\$3,676,281
Santa Clara	\$16,515,750	\$68,682	\$0 \$0	\$1,030,047	\$15,554,385	\$0 \$0	\$0	\$0 \$0	\$0	\$0 \$0	\$1,417,579	\$14,136,806
Shasta Lake	\$42,144	\$176	\$0 \$0	\$1,030,047	\$42,320	\$0 \$0	\$0	\$0	\$0	\$0 \$0	\$1,417,575 \$0	\$42,320
Truckee-Donner	\$155,385	\$650	\$0 \$0	\$0 \$0	\$156,035	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$156,035
Ukiah	\$135,585	\$32,735	\$151,530	\$37,493	\$7,867,644	\$0 \$0	\$204,131	\$0	\$0 \$0	\$26,281	\$35,782	\$156,055
okidh	\$1,120,012	232,133	000,1019	<i>\$31,</i> 435	<i>\$1,001,0</i> 44	ŞU			ŞU	920,201	353,782	\$7,001,449
						\$ 47,849	\$ 3,358,568	\$ 7,000,000	\$ 88,744	\$ 430,549	\$ 2,421,231	\$ 73,975,755

The deposit methodology requirements will be included in Policy No. 200-101, and the respective agreements will reference that policy. Each subsequent update will require Commission approved updates to Policy No. 200-101.

Revised Deposit Calculation for Power Management Services Programs February 23, 2023 Page 6

FISCAL IMPACT:

Approval of Resolution 23-XXX will not have a direct impact on the appropriations already authorized by the approval of the FY2023 budget. The action will free up committed funds for the non-SCPA Programs in members' GOR balances and result in an estimated deposit of approximately \$1.3 million into members' GOR accounts for the release of the excess of SCPA Program deposits.

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] On January 4, 2023, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

RANDY S. HOWARD General Manager

Attachments:

- Resolution 23-XXX
- NCPA's Reserve and Program Security Deposit Presentation prepared by UFS

RESOLUTION OF THE FACILITIES COMMITTEE OF THE NORTHERN CALIFORNIA POWER AGENCY COMMENDING

JIAYO CHIANG

WHEREAS, Jiayo Chiang was appointed as the Facilities Committee Chair in December 2021; and

WHEREAS, Jiayo has brought outstanding and duly appreciated leadership, professionalism and business demeanor to the Facilities Committee; and

WHEREAS, during Jiayo's term as Facilities Committee Chair, the Facilities Committee held 16 meetings to review and recommend approval of the following significant and important projects and commitments that will provide benefits to the Members for years to come:

- Geothermal Project Plant 2 Unit 4 Major Maintenance and Overhaul Project;
- Review and Approval of NCPA Maintenance Projects;
- NCPA 2022 Wild Fire Mitigation Plan;
- Extension of Services Agreement with San Jose Clean Energy;
- PPA and Third Phase Agreement for the Geysers Geothermal Project;
- 2025 Western AAA and Assignment Agreements;
- NCPA FY 2023 Annual Budget;
- Extension of Negotiated Natural Gas Transportation Rate for NCPA Facilities;
- The Nexant cost allocation model survived yet another year, resulting in a record-breaking thirteenth consecutive year of the model being used for cost allocation purposes; and
- Over 50 Multi-Task Professional Services Agreements.

WHEREAS, during the time Jiayo acted as Facilities Committee Chair, the Agency, Members and each of our communities faced many challenges, including, but not limited to, significant wild fires, severe drought, energy scarcity, and historic heat storms. During these challenging times, Jiayo demonstrated poise and exercised strong leadership by providing guidance to the committee, the Agency, and the Members through these difficult times. Notwithstanding these multiple challenges, as a result of the actions taken by the Facilities Committee and due to Jiayo's leadership, the Agency and the Members met each of these challenges, and the Members continued to provide exceptional service to customers throughout Central and Northern California; and

WHEREAS, the Facilities Committee representatives appreciated Jiayo's commitment, professionalism, thoughtful consideration, and good judgement in his role as Committee Chair; and

NOW, THEREFORE BE IT RESOLVED, by the Facilities Committee of the Northern California Power Agency that this Agency, its Members, and its employees heartily commend and thank Jiayo Chiang for his service as the 2022 Facilities Committee Chair.

PASSED, ADOPTED and APPROVED this 4th day of January 2023.

alan Harbottle

ALAN HARBOTTLE CHAIR

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A PUBLIC ABENCY NORTHERN CALIFORNIA POWER AGENCY

ATTEST: CARRIE A. POLLO SECRETARY