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Minutes **DRAFT**

To: NCPA Commission

From: Cary A. Padgett, Assistant Secretary to the Commission

Subject: NCPA Commission Meeting / Teleconference – March 22, 2018

1 – Call Meeting to Order and Introductions

Chair Bob Lingl called the meeting to order at 9:32 am at NCPA's Roseville Office, 651 Commerce Drive, California. A quorum was present. Introductions were made. Those in attendance are shown on the attached attendance list. Mark Chandler (Lodi) arrived at 9:45 am.

2 – Approve Minutes of the February 22, 2018 Regular Commission Meeting

Motion: A motion was made by Liz Kirkley and seconded by Roger Frith to approve the Minutes of the February 22, 2018, Regular Commission Meeting. The motion carried unanimously on a roll call vote of those members present. Plumas-Sierra and San Francisco BART were absent.

PUBLIC FORUM

No comments from the public.

REPORTS AND COMMITTEE UPDATES

3 – General Manager's Business Progress Report and Update

- Mentioned that a luncheon was held for NCPA's Headquarter staff celebrating NCPA's 50th Anniversary. Retired NCPA staff were invited to speak and share their stories of their time at NCPA.
- Gave a brief overview of the upcoming training sessions being held at NCPA.
- Gave an overview of the Utility Directors' Retreat agenda and outcomes. The Utility Director's Retreat as held in Healdsburg earlier this month.
- Attended a Renewable Energy Forum in Phoenix and hear from utility industry leaders on their concerns and issues with the new tax bill regarding renewable and tax credits. In addition, discussed the challenges others are facing regarding the new energy markets.

- Policy and IOU leaders held a meeting to discuss wildfire legislation and how to work together on the liability issue. NCPA, SCPPA and CMUA plan to hold meeting to discuss as well.
- Gave an update on NCPA's Support and Shared Services Agreement and provided a copy of the monthly status report.
- Utility Director Liz Kirkley (Lodi) shared an overview of NCPA's history in honoring the ongoing celebration of NCPA's 50th Anniversary. Every month the Commission will be presented with a commemorative pin that represents a piece of NCPA's history.
- Assistant General Manager Monty Hanks gave a presentation outlining the budget process and timeline, what the proposed budget includes, major drivers of budget changes, baseline budget analysis, A&G cost comparison, salaries and benefits, with discussion on CalPERS unfunded liability impact, proposed staffing changes, and what's not included or will change before the April discussion. Estimated rollout of budget is the beginning of April.

4 – Executive Committee

Committee Chair Bob Lingl reported that the Committee did not meet since the last Commission meeting.

5 – Facilities Committee

Assistant General Manager Dave Dockham reported the Committee met three times since the last Commission meeting. The Committee met and discussed items 12-22 on today's Agenda. A quorum of the Committee was established and supported staff's recommendation. The Committee also met and discussed the proposed FY 2018-19 Power Management, Generation Services and Administrative Services budgets.

6 – Finance Committee

Committee Chair David Hagele report that the Committee did not meet since the last Commission meeting, however staff wanted to update the Commission on the results of the Hydro refunding. On March 13th, NCPA staff finalized the refunding of the 2008 Hydro Series C bonds. The transaction attracted a diverse group of institutional accounts wanting to own these bonds with several maturities being oversubscribed. This allowed us to reduce the yields generating additional savings to the participants. Final numbers for the project participants include the following:

- NPV Savings: \$7.6 million through final maturity of 2024
- Percentage savings of refunded bonds: 10%
- Average annual savings: approx. \$1.37 million per year

The next Finance Committee meeting is scheduled for May 8th. Chair Hagele also thanked the Utility Directors and NCPA Staff for coming to Healdsburg for their Utility Director's Retreat.

7 – Legal Committee

General Counsel Jane Luckhardt reported that the Committee met twice since the last Commission meeting. The Committee discussed matters related to Hometown Connections, Inc., potential transactions involving NCPA and other joint action entities. The Committee also met and discussed the consideration of creating an Ad Hoc Committee to address inverse condemnation risk associated with wild fires caused by electric transmission or distribution lines.

8 – Legislative & Regulatory Affairs Committee

Committee Chair Teresa O'Neill reported that the Committee did not meet since the last Commission meeting, however staff wanted to update the Commission on Legislative and Regulatory events. The NCPA/NWPPA Federal Policy Conference in Washington, D.C., will be held April 15-18 – online registration is now open. A federal legislative briefing will be scheduled in early April for those members attending the conference. The next Committee meeting is scheduled on May 23 at NCPA's Roseville office.

9 – Members' Announcements & Meeting Reporting

Dan Beans (**Redding**) announced Mayor Kristen Schreder as the newly appointed NCPA Commissioner.

Bob Lingl (**Lompoc**) announced that Utility Director Larry Bean announced his retirement and will retire on May 1. Ron Stassi will serve as interim Utility Director until the position is filled. Recruitment for the City Manager position has been posted. The Mission to Mars launch is scheduled on Saturday, May 5 at 4 am for those that may be interested in attending.

CONSENT CALENDAR

Prior to the roll call vote to approve the Consent Calendar, the Commissioners were polled to determine if any member wished to pull an item or abstain from one or more items on the Consent Calendar. No items were pulled for discussion.

Motion: A motion was made by Mark Chandler and seconded by Teresa O'Neill to approve the Consent Calendar consisting of items 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20. The motion carried by a majority of those members present on a roll call vote. Abstentions are noted below. San Francisco BART and Plumas Sierra were absent.

10. NCPA's Financials for the Month Ended {Date} – approval by all members.

11. Treasurer's Report for the Month Ended {Date} – accept by all members.

12. Resolution 18-13, Andritz Hydro – Five Year Field Services Agreement for engineering and field services associated with Collierville Hydroelectric Powerhouse; Applicable to the following projects: NCPA Hydroelectric Facilities – adopt resolution by all members authorizing the General Manager or his designee to enter into a multiple year Amended Terms and Conditions Agreement with Andritz Hydro for engineering and field services as needed at the NCPA Hydroelectric Facility, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$10,000,000 over five years for use at the hydroelectric facilities owned and/or operated by NCPA.

Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$10,000,000 over five years to be used out of NCPA approved budgets as services are rendered. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

Port of Oakland, Redding and Truckee Donner abstained.

13. Resolution 18-14, Bay Cities Fire Protection, Inc. – Five Year Multi-Task General Services Agreement for maintenance, inspection, testing and other necessary services of fire sprinkler systems; Applicable to the following projects: All NCPA Facility Locations, Members, SCLPPA, and SCLPPA Members – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Bay Cities Fire Protection, Inc., for maintenance, inspection, testing and other necessary services on fire sprinkler systems, 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 all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (SCLPPA), or by SCLPPA Members.

Fiscal Impact: This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA currently has in place other agreements with similar service providers including Northern Industrial Construction, and Fire Safety Supply Company. NCPA seeks bids from multiple qualified providers whenever services are needed. Bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.
Port of Oakland abstained.

14. Resolution 18-15, Delegate to the General Manager authority to enter into one or more agreements and to issue purchase orders, with a total not-to-exceed amount of \$550,000 for maintaining and upgrading crane equipment prior to the generator rewind at Collierville Powerhouse on the NCPA Hydroelectric Project – adopt resolution by all members authorizing Authorize the General Manager to enter into one or more agreements and to issue purchase orders, with a total not-to-exceed amount of \$550,000, for maintaining and upgrading the gantry crane at Collierville powerhouse in advance of the stator winding replacement

Fiscal Impact: Based on preliminary budget quotes, the total cost of needed maintenance and upgrades is anticipated to be approximately \$500,000. A contingency of 10% is recommended, resulting in a total project authorization of up to \$550,000.
Port of Oakland and Truckee Donner abstained.

15. Resolution 18-16 Dow Chemical Company – Five Year Sales Contract for Iron Chelate; Applicable to the following projects: Geysers Geothermal Facility – adopt resolution by all members authorizing the General Manager or his designee to enter into a Sales Contract with Dow Chemical Company for Iron Chelate, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,500,000 over five years for use at the Geysers Geothermal Facility – adopt resolution by all members authorizing the General Manager or his designee to enter into a Sales Contract with Dow Chemical Company for Iron Chelate, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,500,000 over five years for use at the Geysers Geothermal Facility.

Fiscal Impact: Staff has contacted a number of different chemical suppliers, Calpine Geysers, and refineries that use the Stretford process for H₂S abatement, to find other chemical providers to supply the needed Iron Chelate for the Stretford process. Dow Chemical is the only company providing this chemical on the west coast. As a result, staff recommends approval of a sole source purchase agreement with Dow Chemical Company for Iron Chelate, which is required for use at Plants 1 and 2 of the Geysers Geothermal Facility. NCPA will issue purchase orders based on cost and availability of the product needed at the time the product is required.

Port of Oakland, Palo Alto and Truckee Donner abstained.

16. Resolution 18-17, HRST, Inc. – Five Year Multi-Task General Services Agreement for inspection services; Applicable to the following projects: All NCPA Facility Locations, Members, SCPPA, and SCPPA Members – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with HRST, Inc. for inspection services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (“SCPPA”), or by SCPPA Members.

Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$1,000,000 over five years to be used out of NCPA approved budgets as services are rendered.

Purchase orders referencing the terms and conditions of the Agreement will be issued following NCPA procurement policies and procedures.

Port of Oakland abstained.

17. Resolution 18-19, Industrial Air Flow Dynamics, Inc. – First Amendment to General Services Agreement for roof seal replacement services; Applicable to the following projects: Lodi Energy Center – adopt resolution by all members authorizing the General Manager or his designee to enter into a First Amendment to General Services Agreement with Industrial Air Flow Dynamics, Inc. for roof seal replacement services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$300,000 for use at the Lodi Energy Center facility.

Fiscal Impact: Upon execution, the total cost of the agreement is not to exceed \$300,000 to be used out of the NCPA Lodi Energy Center approved budget. Purchase orders referencing the terms and conditions of the Agreement will be issued following NCPA procurement policies and procedures.

Alameda, Palo Alto, Port of Oakland, Redding, and Truckee Donner abstained.

18. Resolution 18-20, Nor-Cal Battery Company – Five Year Multi-Task General Services Agreement for battery maintenance services; Applicable to the following projects: All NCPA Facility Locations, Members, SCPPA, and SCPPA Members – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Nor-Cal Battery Company for battery maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$250,000 over five years for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (“SCPPA”), or by SCPPA Members.

Fiscal Impact: Upon execution, the total cost of the agreement is not-to-exceed \$250,000 over five years to be used out of NCPA approved budgets as services are rendered. Purchase orders referencing the terms and conditions of the Agreement will be issued following NCPA procurement policies and procedures.

19. Resolution 18-21, Public Works Agreement for the Geothermal Plant 2 Sulfur Platform Project; Applicable to the following project: Geothermal Plant 2 – adopt resolution by all members increasing the not to exceed amount for the Sulfur Platform Public Works Project at NCPA Geothermal Plant #2 from \$731,944 to \$803,910, to cover the increase in material and labor costs, and delegating authority to the General Manager to issue purchase orders and change orders for the updated not to exceed amount.

Fiscal Impact: Total cost of the project is \$730,910.18, as specified in the contractor’s revised pricing. Contingency funds of \$72,999.82 (approximately 10%) are further requested to cover possible change orders, for a revised total project cost not to exceed \$803,910. Purchase orders referencing the terms and conditions of the agreement will be issued consistent with NCPA procurement policies and procedures.

Palo Alto, Port of Oakland, Redding, and Truckee Donner abstained.

20. Resolution 18-22, T.A. Krause, Inc. dba T.A. Krause Construction and Custom Painting – Five Year Multi-Task General Services Agreement for preventive roofing and siding maintenance; Applicable to the following projects: All NCPA Facility Locations, Members, SCPPA, and SCPPA Members – adopt resolution by all members authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with T.A. Krause, Inc. dba T.A. Krause Construction and Custom Painting for preventive roofing and siding maintenance, including application of sealant, primer, and coating, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (“SCPPA”), or by SCPPA Members.

Fiscal Impact: This enabling agreement does not commit NCPA to any expenditure of funds. NCPA currently has in place other agreements with similar service providers, including Hug’s Painting, Inc. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from multiple qualified providers whenever services are needed. Bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

Port of Oakland abstained.

DISCUSSION / ACTION ITEMS

21. Resolution 18-18, Insurance Reimbursements for Adit 4 Spoils Facility Repair and Beaver Creek Cleanout Projects – adopt resolution by all members authorizing the General Manager to execute Proof of Loss forms for \$1,770,036 (gross) for the Beaver Creek Reservoir Storm Damage Claim and \$2,600,000 (gross) for the Adit 4 Landslide Claim to settle and close both claims at the NCPA Hydroelectric Project.

Fiscal Impact:

Adit 4:

In 2016, the Insurer originally determined that the Adit 4 Spoils Facility was not a named facility under the insurance policy. However, after staff met with the underwriters and presented a case for coverage, the underwriters reversed their position and determined that the Adit 4 Spoils Facility was a covered asset within the Collierville Power Tunnel Complex. Initial proposed reimbursement values were significantly less than those eventually reached and presented herein. Staff subsequently submitted a targeted supplemental engineering analysis, which supported the case for greater reimbursement, resulting in a final uplift in the reimbursement.

On February 28, 2018, NCPA staff and the Hydroelectric Project Insurance Underwriters (Insurer) reached a negotiated tentative reimbursement settlement of \$2.6M of the total Commission authorized cost of \$3.25M. The total net reimbursement, minus the \$500,000 deductible, is \$2.1M. The policy exclusions applied were:

- Maintenance and betterment related work
- Salaried NCPA staff time

Staff believes that the proposed reimbursement is reasonable based upon maintenance/betterment policy exclusions in conjunction both with extensive interaction with Insurer, since early 2016, and their multiple/extensive increases in proposed reimbursements

Staff recommends the settlement for the following reasons:

- The amount is reasonable based upon already anticipated maintenance and betterment exclusions

- This is the most that could reasonably be expected based upon the extensive increases in proposed reimbursement by the Insurer
- Further negotiations could potentially have negative impacts
- Further negotiations will extend the reimbursement timelines

Beaver Creek:

From January 2017-February 2017, flooding filled Beaver Creek Reservoir with over 11,000 cubic yards of sediment and debris that forced the Beaver Creek Diversion off-line until removal could be accomplished. NCPA was able to piggyback the baseline emergency project and remove an additional 5,000 cubic yards of pre-2017 storm deposits. Adding this work to the Project minimized the extraction cost by amending the emergency dredging permits and leveraging the already mobilized contractor. The total Project costs came in at \$2,200,641. On February 28, 2018, NCPA staff and the Insurers reached a negotiated tentative reimbursement settlement amount of \$1,770,036. The total net reimbursement, minus the \$500,000 deductible, is \$1,270,036. The policy exclusions applied were:

- Debris removal for debris deposited prior to the 2017 storm
- Salaried NCPA staff time

Staff believes that the proposed reimbursement is straightforward and reasonable.

Staff anticipates that a significant portion of the \$500,000 deductible will be reimbursed by Federal Emergency Management Agency (FEMA) and California Office of Emergency.

Jake Eymann, NCPA Staff, gave a presentation on the Insurance Reimbursements for Adit 4 Spoils Facility Repair and Beaver Creek Cleanout Projects.

Motion: A motion was made by Mark Chandler and seconded by Roger Frith authorizing the General Manager to execute Proof of Loss forms for \$1,770,036 (gross) for the Beaver Creek Reservoir Storm Damage Claim and \$2,600,000 (gross) for the Adit 4 Landslide Claim to settle and close both claims at the NCPA Hydroelectric Project. Motion carried by majority on a roll call vote of those members present.

Port of Oakland, Redding, Shasta Lake, and Truckee Donner abstained. San Francisco BART and Plumas-Sierra were absent.

22. Resolution 18-23, Approve Provision of Services to San Jose Clean Energy – adopt resolution by all members approving approve the Services Agreement with San Jose Clean Energy, under which NCPA will supply certain scheduling and portfolio management services to San Jose Clean Energy, including any non-substantive modifications to the Services Agreement approved by NCPA's General Counsel. NCPA staff also recommends that the Commission authorize NCPA's General Manager, or the General Manager's designee, to execute the Services Agreement on behalf of NCPA.

Fiscal Impact: In consideration for NCPA's provision of services, for the first one (1) year period in which NCPA is supplying services to SJCE, SJCE shall pay NCPA an amount equal to Twenty Five Thousand Dollars (\$25,000) per month during the period of September 1, 2018 through the date on which SJCE implements Phase 2 of its program, and Fifty Two Thousand Five Hundred Dollars (\$52,500) per month for the period beginning on the date SJCE implements Phase 2 of its program through August 31, 2019. For each subsequent one (1) year period of the term of this Agreement, SJCE shall pay NCPA an amount equal to the sum of the annual amount charged to SJCE during the prior year escalated at a rate of two percent (2%) per year; provided, however, for the one (1) year period immediately following the first one (1) year period, the amount of compensation used to perform the calculation described herein shall be \$630,000.00. Such annual amounts shall be billed to SJCE in twelve (12) equal monthly installments.

In addition to the primary scope of services NCPA shall supply to SJCE, NCPA may also provide certain Supplemental Services to SJCE, as described in the Services Agreement. In consideration for all Supplemental Services, SJCE shall compensate NCPA on a time and materials basis, in accordance with the applicable supplemental services wage schedule contained in the Services Agreement.

NCPA's administrative costs for development of the Services Agreement with SJCE will be allocated to members in accordance with approved cost allocation methodologies as described in the NCPA annual budget.

NCPA staff Tony Zimmer gave a detailed presentation on the Services Agreement with San Jose Clean Energy. The Commission discussed and asked for clarification on the escalation of cost, as well as the revenue reduction and cost reductions.

Motion: A motion was made by Roger Frith and seconded by Madeline Deaton approving the Services Agreement with San Jose Clean Energy, under which NCPA will supply certain scheduling and portfolio management services to San Jose Clean Energy, including any non-substantive modifications to the Services Agreement approved by NCPA's General Counsel. NCPA staff also recommends that the Commission authorize NCPA's General Manager, or the General Manager's designee, to execute the Services Agreement on behalf of NCPA. Motion carried by majority on a roll call vote of those members present.

San Francisco BART and Plumas-Sierra were absent.

- 23. *New Hometown Connections, Inc.***, – Northern California Power Agency membership in a new nonprofit corporation, new Hometown Connections, Inc., that will provide advanced metering systems and data management services to public power entities. The corporation may also provide access to reduced cost vendor services, and public power management and strategic consulting. (*Discussion Only*)

General Manager Randy Howard provided an update and presentation on Hometown Connections, Inc. (HCI), AMP Ohio AMI Program, as well as the benefits of becoming a founding member of HCI. This item was for discussion only. No action required or taken.

The Commission did not convene into closed session for agenda item 24.

CLOSED SESSION

- 24. *Conference with Legal Counsel*** discussion with asset purchase negotiators pursuant to Government Code Section 54956.8: the potential participation with other joint action agencies in the purchase of Hometown Connections, Inc., including their existing lease and other assets located at 12081 W. Alameda Parkway, #464, Lakewood, CO 80228. The asset purchase negotiators will be Randy Howard and Bob Caracristi. NCPA's negotiators will negotiate with Alabama Municipal Electric Authority, Public Power Inc. and American Public Power Association. Commission instruction to the negotiators may include both price and terms of payment.

INFORMATION ITEMS

25. *Hydrology Report* – update and presentation.

Assistant General Manager Ken Speer gave an update and presentation on the hydrology at the Hydroelectric Project.

26. *Lodi CT1 Area Future Development Report* – update and presentation.

Assistant General Manager Ken Speer gave an update and presentation on the Lodi CT1 Area Future Development Project. The City of Lodi purchased the land around CT1 project. Future proposed plans from the Lodi Planning Commission include building a hotel and three-story apartment buildings adjacent to the facility. NCPA is in discussion with city staff and will keep the Commission updated on developments. Commissioner Mark Chandler (Lodi) mentioned that this development project is important to the City.

NEW BUSINESS

Chair Lingl recognized those members and staff that have March birthdays.

ADJOURNMENT

The March 22, 2018, Commission meeting was adjourned at 11:55 am.

Respectfully submitted,

CARY A. PADGETT
Assistant Secretary to the Commission

Attachments

**Northern California Power Agency
Commission Meeting / Teleconference of March 22, 2018
COMMISSIONER
Attendance List**

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

MEMBER	NAME
ALAMEDA	Madeline Deaton
BIGGS	Roger Frith
GRIDLEY	Paul Eckert
HEALDSBURG	David Hagele (Teleconference)
LODI	Mark Chandler
LOMPOC	Bob Lingl
PALO ALTO	Greg Scharff (Teleconference)
PORT OF OAKLAND	Basil Wong
PLUMAS-SIERRA REC	
REDDING	Dan Beans (Teleconference)
ROSEVILLE	Bonnie Gore
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT (BART)	
SANTA CLARA	Teresa O'Neill (Teleconference)
SHASTA LAKE	James Takehara (Teleconference)
TRUCKEE DONNER	Joe Horvath (Teleconference)
UKIAH	Mel Grandi

**Northern California Power Agency
Commission Meeting /Teleconference of March 22, 2018
Attendance List**

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

NAME	AFFILIATION
Nico Proco	Alameda
Terry Crowley (Teleconference)	Healdsburg
Liz Kirkley	Lodi
Ed Shikada (Teleconference)	Palo Alto
Jon Abendschein (Teleconference)	Palo Alto
Kirsten Schreder (Teleconference)	Redding
Michelle Bertolino	Roseville
John Roukema (Teleconference)	Silicon Valley Power
Kathleen Hughes (Teleconference)	Silicon Valley Power
Randy Howard	NCPA
Jane Luckhardt	NCPA
Ken Speer	NCPA
Dave Dockham	NCPA
Jane Cirrincione	NCPA
Jake Eymann	NCPA
Sarah Taheri	NCPA
Tony Zimmer	NCPA
Cary Padgett	NCPA

CONSENT CALENDAR

All items on the Consent Calendar are considered routine and will be approved without discussion by a single-roll call vote. Any Commissioner or member of the public may remove any item from the Consent Calendar. If an item is removed, it will be discussed separately following approval of the remainder of the Consent Calendar.

Prior to the roll call vote to approve the Consent Calendar, the Commissioners will be polled to determine if any Member wishes to abstain from one or more items on the Consent Calendar.

CONSENT CALENDAR ROLL-CALL APPROVAL

Commission Meeting Date: 3/22/18

Consent Items Listed on the Agenda: # 10 to # 20

Consent Items Removed from the Agenda and Approved Separately:

0

(Biggs) Lodi

ROLL-CALL VOTE BY MEMBERS:

Member	Item Numbers Abstained	Vote	Absent
Alameda	<u>17</u>	<u>Y</u>	
BART		<u>Y</u>	<u>X</u>
Biggs		<u>Y</u>	
Gridley		<u>Y</u>	
Healdsburg		<u>Y</u>	
Lodi		<u>Y</u>	
Lompoc		<u>Y</u>	
Palo Alto	<u>15, 17, 19</u>	<u>Y</u>	
Port of Oakland	<u>12-17, 19-20</u>	<u>Y</u>	
Redding	<u>12, 14, 15, 17, 19</u>	<u>Y</u>	
Roseville		<u>Y</u>	
Santa Clara		<u>Y</u>	
Shasta Lake		<u>Y</u>	
Truckee Donner	<u>12, 14, 15, 17, 19</u>	<u>Y</u>	
Ukiah		<u>Y</u>	
Plumas-Sierra			<u>X</u>

ATTEST:

Cary A. Padgett
Cary A. Padgett
Assistant Secretary to the Commission



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Minutes - DRAFT

To: NCPA Commission
From: Cary A. Padgett - Assistant Secretary to the Commission
Subject: April 18, 2018, Special Commission Meeting Minutes

1. **Call Meeting to Order and Introductions** – Chair Bob Lingl called the meeting to order at 8:05 am (EST) at the Marriott Marquis, 901 Massachusetts Ave., NW, Washington, D.C. A quorum was present. Introductions were made. Those in attendance are shown on the attached attendance list.

Public Forum: Chair Lingl asked if any members of the public were present who would like to address the Commission on the agenda items. No members of the public were present.

CLOSED SESSION

2. **Conference with Legal Counsel** – Existing litigation pursuant to Government Code Section 54956.9(d)(1): Name of case: *Northern California Power Agency, City of Redding, City of Roseville, and City of Santa Clara v. the United States*, Court of Federal Claims No. 14-817C.

RECONVENED TO OPEN SESSION

REPORT FROM CLOSED SESSION

Closed Session Disclosure: General Counsel Jane Luckhardt stated no reportable action was taken on Closed Session Item 2.

ADJOURNMENT

The Commission adjourned at 9:11 am (EST).

Respectfully submitted,

CARY A. PADGETT
Assistant Secretary

**Northern California Power Agency
Special Commission Meeting of April 18, 2018
COMMISSIONER
Attendance List**

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

MEMBER	NAME
ALAMEDA	Nico Procos
BIGGS	Roger Frith
GRIDLEY	
HEALDSBURG	David Hagele
LODI	
LOMPOC	Bob Lingl
PALO ALTO	Debra Lloyd
PORT OF OAKLAND	Basil Wong
PLUMAS-SIERRA REC	
REDDING	Dan Beans
ROSEVILLE	Michelle Bertolino
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT (BART)	
SANTA CLARA	Teresa O'Neill
SHASTA LAKE	
TRUCKEE DONNER	Joe Horvath
UKIAH	

**Northern California Power Agency
Special Commission Meeting of April 18, 2018
Attendance List**

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

[illegible]



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Commission Staff Report

AGENDA ITEM NO.: 5

Date: April 26, 2018
To: NCPA Commission
Subject: April 4, 2018 Facilities Committee Meeting Minutes

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



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Minutes

Date: April 12, 2018
To: NCPA Facilities Committee
From: Carrie Pollo
Subject: April 4, 2018 Facilities Committee Meeting Minutes

1. **Call meeting to order & Roll Call** - The meeting was called to order by Committee Vice Chair Tikan Singh at 9:05 am. A sign-in sheet was passed around. Attending via teleconference and/or on-line presentation were Alan Hanger and Debbie Whiteman (Alameda), Mark Sorensen (Biggs), Paul Eckert (Gridley), Jim Stack (Palo Alto), Jared Carpenter (Port of Oakland), and Steve Hance and Kathleen Hughes (Santa Clara). Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Healdsburg, Plumas-Sierra, TID, and Ukiah were absent. A quorum of the Committee was established.

PUBLIC FORUM

No public comment.

2. **Approve minutes from the February 28, 2018 Facilities Committee Meeting, and the February 13 and March 13, 2018 Special Facilities Committee Meetings.** A motion was made by Shannon McCann and seconded by Jiayo Chiang recommending approval of the February 28, 2018 Facilities Committee meeting minutes, and the February 13 and March 13, 2018 Special Facilities Committee meeting minutes. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Palo Alto, Port of Oakland, Roseville, and Santa Clara. The motion passed.
3. **Geothermal Facilities Decommission Funding Schedule** – Staff presented background information and was seeking a recommendation from the Facilities Committee for Commission approval of a modified Decommission Funding Schedule for the Geothermal Facility based on the 2016 Decommission Study. A draft Commission Staff Report with the draft Resolution were available for review.

Motion: A motion was made by Shannon McCann and seconded by Alan Hanger recommending Commission approval stating that the collection of funds for the decommissioning of the Geothermal facilities be modified based on the 2006 and 2016 Decommission Estimates. The recommendation is to continue the current funding schedule

based on the 2006 estimate through FY 2024. Starting in FY 2025, decommission funding will increase to a flat rate of \$2,417,081 per fiscal year through FY 2058. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Roseville, and Santa Clara. ABSTAIN = Palo Alto and Port of Oakland. The motion passed.

4. **Geothermal Facilities – Geysers Economic Curtailment** – Staff presented background information, and was seeking a recommendation for Commission approval regarding Geysers curtailment due to expected negative pricing.

Motion: A motion was made by Shannon McCann and seconded by Jiayo Chiang recommending Commission approval that the Geothermal facility not be curtailed unless Power prices are a negative price of at least \$25/MW/hr, with a curtailment level maximum of 45 MW. The amount of curtailment may need to be adjusted based upon steam field response. Only Cycle when the daily prices are expected to be at the negative price above for 4 hours or more. Limit cycling to once per day. Staff will also return to Facilities Committee with a report should instances of curtailment occur. YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Roseville, and Santa Clara. ABSTAIN = Palo Alto and Port of Oakland. The motion passed.

5. **All Generation Services Facilities, Members, SPCPA – Univar USA Inc. MTGSA** – Staff is seeking a recommendation for Commission approval of a Multi-Task General Services Agreement with Univar USA, Inc. for the purchase of chemicals, with a not to exceed amount of \$1,500,000, for use at all facilities owned and/or operated by NCPA, its Members, SPCPA, and SPCPA Members. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. ***This item was pulled from the agenda and will be moved to the May Facilities Committee Meeting.***

6. **All Generation Services Facilities, Members, SPCPA – Herold and Mielenz Inc. MTGSA** – Staff is seeking a recommendation for Commission approval of a Multi-Task General Services Agreement with Herold and Mielenz, Inc. for motor maintenance services, with a not to exceed amount of \$750,000, for use at all facilities owned and/or operated by NCPA, its Members, SPCPA, and SPCPA Members. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. ***This item was pulled from the agenda and will be moved to the May Facilities Committee Meeting.***

7. **Geothermal Facilities – TNG Energy Services MTGSA** – Staff gave background information and was seeking a recommendation for Commission approval of a Multi-Task General Services Agreement with TNG Energy Services for labor, materials, and tools for serving wellhead valves and other equipment, with a not to exceed amount of \$750,000, for use at NCPA Geothermal facilities. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report and the draft agreement were available for review.

Motion: A motion was made by Shannon McCann and seconded by Jiayo Chiang recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with TNG Energy Services for labor, materials, and tools to service wellhead valves and other associated equipment as part of NCPA's preventive maintenance and continuing operations, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$750,000 over five years, for use at the Geysers Geothermal Facilities. YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Roseville, and Santa Clara. ABSTAIN = Palo Alto and Port of Oakland. The motion passed.

8. **All Generation Services Facilities – Chemical Waste Management Inc. ISA** – Staff is seeking a recommendation for Commission approval of an Industrial Services Agreement with Chemical Waste Management, Inc. for industrial waste disposal services, with a not to exceed amount of \$1,500,000, for use at all facilities owned and/or operated by NCPA. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. ***This item was pulled from the agenda and will be moved to the May Facilities Committee Meeting.***

9. **All Generation Services Facilities, Members, SCPPA – TNT Industrial Contractors Inc. MTGSA** – Staff provided background information and was seeking a recommendation for Commission approval of a Multi-Task General Services Agreement with TNT Industrial Contractors, Inc. for general T&M maintenance services, with a not to exceed amount of \$2,000,000, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report and the draft agreement were available for review.

Motion: A motion was made by Jiayo Chiang and seconded by Monica Padilla recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with TNT Industrial Contractors, Inc. for general T&M maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000.00 over five years for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (“SCPPA”), or by SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Palo Alto, Port of Oakland, Roseville, and Santa Clara. The motion passed.

10. **All Generation Services Facilities, Members, SCPPA – Halliburton Energy Services Inc. MTGSA** – Staff presented background information and was seeking a recommendation for Commission approval of a Multi-Task General Services Agreement with Halliburton Energy Services, Inc. for injection well related services, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report and the draft agreement were available for review.

Motion: A motion was made by Shannon McCann and seconded by Jiayo Chiang recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Halliburton Energy Services, Inc. for well related services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (“SCPPA”), or by SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Gridley, Lodi, Lompoc, Palo Alto, Port of Oakland, Roseville, and Santa Clara. The motion passed.

11. **Hydroelectric Owner/Operator Responsibilities – Information-Only** – NCPA Hydro staff presented Committee updates on NCPA’s responsibility as a dam owner/operator, and potential industry implications from the 2017 DWR Oroville Spillway incident.

Staff reviewed some of the National historical defining dam failures. The Division of Safety of Dams (DSOD) was formed in 1928 after the St. Francis dam failure. The 2017 DWR Oroville

spillway incident is the biggest dam safety incident of this generation due to the amount of evacuations. Since this incident there has been DSOD repercussions, as well as FERC repercussions. The DSOD is primarily focused on dam safety. NCPA has adopted FERC's principles of a supportive dam safety organization. General regulatory changes include growth in the following areas: physical inspections, comprehensive facility reviews, regulatory compliance and fees, consideration of appurtenant structures, and owners' dam safety programs and dam safety culture. The Potential Failure Mode Analyses (PFMAs) has expanded and will continue to expand to include broader operational/societal impacts. Due to the design of the NCPA hydro projects, safety is not a big concern. NCPA's main concern is cyber security or a terrorist attack.

Current NCPA projects include the McKays Point Spillway Plunge Pool Assessment with significant in-house research, a certified Independent Consultant and FERC review. The Union Dams dam and spillway repairs, with in-house labor planned during the summers of 2018, 2019, and 2020. Others include union inundation mapping investigation and the Owner's Dam Safety Program (ODSP) audit by an independent consultant in 2018. The NCPA hydro projects covered by ODSP include New Spicer Meadows, McKays Point, Alpine, Utica and low hazard dams.

- 12. All Generation Services Facilities, Members, SPPA – Leidos Engineering, LLC MTPSA –** Staff presented and was seeking a recommendation for Commission approval of a Multi-Task Professional Services Agreement with Leidos Engineering, LLC for transmission and distribution design, and engineering services, with a not to exceed amount of \$1,000,000, for use at all facilities owned and/or operated by NCPA, its Members, SPPA, and SPPA Members. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report and the draft agreement were available for review.

Motion: A motion was made by Monica Padilla and seconded by Shannon McCann recommending Commission approval authorizing the General Manager or his designee to enter into a Five Year Multi-Task Professional Services Agreement with Leidos Engineering, LLC for transmission and distribution design and engineering services, with any non-substantial changes recommended and approved by NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at all facilities owned and/or operated by the Northern California Power Agency (NCPA), its Members, the Southern California Public Power Authority ("SPPA"), and SPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Lodi, Lompoc, Palo Alto, Port of Oakland, Roseville, and Santa Clara. The motion passed.

- 13. NCPA Generation Services Plant Updates – Informational-Only –** NCPA Plant staff provided the Committee with informational updates on current plant activities and conditions at Hydro and the CTs.

Hydro staff reported that there is now 12 feet of snow at Spicer Meadows. Runoff in the major Sierra river basins now range from 43% to 80% of average, with NCPA's project at 60%. March was a great month, but still not enough. April will be above average. Collierville was forced offline for 8 hours due to the March 22 high tailwater event. The blower upgrade would have helped the curtailment by trimming the time to 5-6 hours instead of 8. There is also a high probability of Collierville high tailwater curtailment on April 7 due to a warm storm.

New Spicer Meadow was in an outage from March 13 – April 3 due to a PG&E cable fault between Salt Springs and Cabbage Patch. NCPA's lost revenue (energy + RECs) was \$9,000. The Collierville Unit 2 Generator is no longer de-rated. The unit has now been returned to full

capacity at 126.5 MW. It was de-rated to 115 MW in June 2017 following interim repair after a stator ground fault. The decision to remove the de-rate was made in consultation with multiple generator experts after reviewing observed current imbalance, heating differentials, and knowing that a full rewind is scheduled for this fall.

CT staff reported that 3 miles of the NCPA 8 mile southern transmission line is being upgraded. This is a PG&E TPP project. This will increase capacity to 700MW, so both LEC and STIG will be able to operate at full output at the same time when this is completed. LEC is 304MW, with STIG at 50MW. The current line is rated at 330MW, so LEC has been de-rated for STIG runs. This is also expected to reduce localized congestion. The CT1 has had 9 starts for the first quarter, so is being used a lot more. Costs are doing better at FY18 capacity cost of \$23 per KW-Yr. YTD compared to FY17 capacity cost of \$29 per KW-Yr. Forecasting is hard for this project.

14. Generation Services Request for Special Facilities Committee Meeting – Generation Services Administration staff presented a proposal for a Special Facilities Committee Meeting to be held in April for review and approval of services to support the NCPA Solar Project Phase 2.

The Committee agreed to schedule a Special Facilities Committee Meeting Tuesday, April 17th, at 10:00 am to discuss this item. ***Since the time of this meeting, the Special Facilities Committee Meeting was cancelled.***

15. Planning and Operations Update –

- The TO18 TAC trail initial brief was on March 23. An updated brief is expected on April 23, with a decision by June 1. There should be significant tariff reductions.
- TO19 is delayed due to a FERC order on tax reduction. PG&E needs to file by 4/16 on tax stated rate.
- Order 890 Complaint – FERC to hold a technical conference on May 1. PG&E, CPUC, TANC, SCE, SC, and NCPA will all be part of the Order 890 discussion at the technical conference in Washington, DC.
- Alameda Municipal Power will be putting out a RFP for renewable energy due to the retirement of a PG&E power plant in Oakland.
- Due to changes approved by the CAISO Board in the CRR auction, CRR revenue will likely be going down.
- East Bay Community Energy (EBCE) and San Jose Clean Energy (SJCE) Services Agreements have been approved for \$630,000 and \$640,000. NCPA is assisting EBCE with procurement of RA for 2018.
- Vela Wann accepted the position in Power Management as the new Energy Resource Analyst II.
- The Bureau of Reclamation is proceeding with a \$10m settlement of the \$93m due to the over payment of power. NCPA will continue to negotiate for the remainder of the over payments due to Members.

16. Schedule next meeting date – The next regular Facilities Committee Meeting is scheduled for May 2, 2018.

ADJOURNMENT

The meeting was adjourned at 11:44 am.



**Northern California Power Agency
April 4, 2018 Facilities Committee Meeting
Attendance List**

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

[illegible]

**Northern California Power Agency
April 4, 2018 Facilities Committee Meeting
Attendance List**

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

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




Commission Staff Report

April 18, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: March 2018 Financial Report (Unaudited)

AGENDA CATEGORY: Consent

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

IMPACTED MEMBERS:

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

If other, please specify

RECOMMENDATION:

Approval by all members

NOTICE:

The disbursements of the Northern California Power Agency for the month reported herein, will be approved at the April 26, 2018 meeting of the NCPA Commission. The following page is a summary of those disbursements.

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

The report of budget vs. actual costs and the unaudited March 2018 financial reports are also included.

FISCAL IMPACT:

This report has no direct budget impact to the Agency.

ENVIRONMENTAL ANALYSIS:

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

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments: (1)

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

**Schedule of Disbursements
(Unaudited)**

For the Month of March 2018

Operations:

Geothermal	\$ 1,077,194
Hydroelectric	3,266,240
CT#1 Combustion Turbines	247,768
CT#2 STIG	498,106
Lodi Energy Center	5,036,699
NCPA Operating	<u>26,338,928</u>
Total	<u><u>\$ 36,464,935</u></u>

NORTHERN CALIFORNIA POWER AGENCY
REPORT OF BUDGET VS. ACTUAL COST
FOR THE PERIOD ENDED MARCH 31, 2018

PERCENT OF
YEAR ELAPSED
75%

	This Month	Actual Year To-Date	FY 2018 Budget	% Used	
<u>GENERATION RESOURCES</u>					
NCPA Plants					
Hydroelectric					
Other Plant Cost	\$ 1,351,986	\$ 13,993,138	\$ 15,603,994	90%	(a)
Debt Service (Net)	3,188,179	28,693,613	38,258,150	75%	
Annual Budget Cost	4,540,165	42,686,751	53,862,144	79%	
Geothermal					
Other Plant Cost	2,646,279	18,055,583	27,184,263	66%	
Debt Service (Net)	411,312	3,701,807	4,935,743	75%	
Annual Budget Cost	3,057,591	21,757,390	32,120,006	68%	
Combustion Turbine No. 1	411,940	3,432,187	3,198,552	107%	(b)
Combustion Turbine No. 2 (Stig)					
Fuel and Pipeline Transport Charges	58,596	877,615	834,641	105%	(c)
Other Plant Cost	185,594	1,684,252	2,095,083	80%	(c)
Debt Service (Net)	474,410	4,269,692	5,692,922	75%	
Annual Budget Cost	718,600	6,831,559	8,622,646	79%	
Lodi Energy Center					
Fuel	3,170,911	25,370,934	14,877,170	171%	(d)
Other Plant Cost	1,945,884	17,787,354	19,794,554	90%	(d)
Debt Service (Net)	2,181,150	19,751,770	26,416,640	75%	
Annual Budget Cost	7,297,945	62,910,058	61,088,364	103%	
Member Resources - Energy	4,242,016	39,276,039	53,389,034	74%	
Member Resources - Natural Gas	281,604	2,625,497	3,457,156	76%	
Western Resources	2,717,883	15,814,106	30,119,880	53%	
Market Power Purchases	4,780,479	26,075,169	19,318,025	135%	(e)
Load Aggregation Costs - CAISO	15,380,193	154,418,121	233,822,294	66%	
Net GHG Obligations	-	839,320	445,917	188%	(f)
	43,428,416	376,666,197	499,444,018	75%	
<u>TRANSMISSION</u>					
Independent System Operator					
Grid Management Charge	329,683	2,980,585	2,466,609	121%	(g)
Wheeling Access Charge	8,752,595	75,435,914	96,760,295	78%	
Ancillary Services	291,811	2,781,631	2,639,380	105%	(h)
Other Charges	1,320,795	11,939,197	1,058,438	1128%	(i)
	10,694,884	93,137,327	102,924,722	90%	
<u>MANAGEMENT SERVICES</u>					
Legislative & Regulatory					
Legislative Representation	149,802	1,216,391	1,976,008	62%	
Regulatory Representation	47,413	461,337	837,639	55%	
Western Representation	51,894	382,036	829,636	46%	
Member Services	49,234	281,915	436,078	65%	
Judicial Action	23,939	567,998	625,000	91%	(j)

**NORTHERN CALIFORNIA POWER AGENCY
REPORT OF BUDGET VS. ACTUAL COST
FOR THE PERIOD ENDED MARCH 31, 2018**

PERCENT OF YEAR ELAPSED 75%
--

	This Month	Actual Year To-Date	FY 2018 Budget	% Used	
Power Management					
System Control & Load Dispatch	591,059	4,079,033	5,864,452	70%	
Forecasting, Planning, Prescheduling & Trading	256,895	1,773,761	2,647,017	67%	
Industry Restructuring & Regulatory Affairs	24,743	221,338	424,174	52%	
Contract Admin, Interconnection Svcs & External Affairs	78,712	625,942	1,151,828	54%	
Green Power Project	225	1,662	17,746	9%	
Gas Purchase Program	6,913	46,269	88,131	53%	
Market Purchase Project	10,302	67,572	130,141	52%	
Energy Risk Management	1,324	136,739	206,836	66%	
Settlements	53,785	416,648	774,377	54%	
Integrated Systems Support	3,103	66,370	318,562	21%	
Participant Pass Through Costs	51,612	799,537	1,525,907	52%	
Support Services	12,988	142,066	-	N/A	
	1,413,943	11,286,614	17,853,532	63%	
TOTAL ANNUAL BUDGET COST	55,537,243	481,090,138	620,222,272	78%	
LESS: THIRD PARTY REVENUE					
Plant ISO Energy Sales	10,054,998	91,075,525	70,367,243	129%	(k)
Load Aggregation Energy Sales	7,618,238	80,813,825	151,018,772	54%	
Ancillary Services Sales	865,353	4,406,633	2,731,442	161%	(l)
Western Resource Energy Sales	548,530	17,807,519	18,026,100	99%	(m)
Other ISO Revenue	1,409,690	12,715,440	-	N/A	
Transmission Sales	9,198	82,782	110,376	75%	
Western Credits, Interest and Other Income	841,650	9,117,306	15,712,788	58%	
	21,347,657	216,019,030	257,966,721	84%	
NET ANNUAL BUDGET COST TO PARTICIPANTS	\$ 34,189,586	\$ 265,071,108	\$ 362,255,551	73%	

- (a) Increase in costs due to unbudgeted outside services related to the dredging of the Beaver Creek reservoir. It is anticipated that costs will be offset by insurance and FEMA proceeds.
- (b) Increase in costs due to greater than projected MWhs of generation. CT1 is at 774% of budgeted MWhs at 3/31/18. Fuel costs, CA ISO charges, and other variable costs have all increased as a result of increased generation.
- (c) Increase in costs due to greater than projected MWhs of generation. CT2 is at 702% of budgeted MWhs at 3/31/18. Fuel costs and CA ISO charges have increased as a result of increased generation.
- (d) Increase in costs due to greater than projected MWhs of generation. LEC is at 269% of budgeted MWhs at 3/31/18. Fuel costs and CA ISO charges have increased as a result of increased generation.
- (e) Increase due to unbudgeted market purchases and NCPA contracts. Unbudgeted contracts include Gridley PV, Bart PV, as well as deals made after the FY18 budget including certain Powerex, Shell, and EDF deals.
- (f) Purchases made several months in advance. Increase primarily due to greater than anticipated GHG allowances purchased at auction for the City of Lodi.
- (g) Increase due to greater than projected MWhs of generation. See notes (b), (c), and (d).
- (h) Increase due to greater than projected MWhs of generation. See notes (b), (c), and (d) and corresponding increase in ancillary services sales.
- (i) The large budget to actual variance is caused by unbudgeted CAISO costs including imbalance costs, neutrality allocations, congestion offsets, and other cost allocations. These costs are not budgeted due to their unpredictable nature.
- (j) Variance due to unbudgeted legal costs.
- (k) Variance due to higher than anticipated ISO energy sales for the Lodi Energy Center (LEC), CT1, CT2, and Hydro.
- (l) Increase due to greater than projected MWhs of generation. See notes (b), (c), (d), and (h) and corresponding increase in ancillary services costs.
- (m) Variance due primarily to \$1.38 million in unbudgeted displacement revenue.

COMBINED STATEMENTS OF NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

UNAUDITED

	March 31,	
	2018	2017
	(in thousands)	
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 17,267	\$ 44,424
Investments	45,990	30,041
Accounts receivable		
Participants	-	-
Other	4,252	654
Interest receivable	272	198
Inventory and supplies	9,940	9,657
Prepaid expenses	2,159	1,566
TOTAL CURRENT ASSETS	79,880	86,540
RESTRICTED ASSETS		
Cash and cash equivalents	41,713	46,267
Investments	185,411	175,337
Interest receivable	704	531
TOTAL RESTRICTED ASSETS	227,828	222,135
ELECTRIC PLANT		
Electric plant in service	1,504,238	1,501,569
Less: accumulated depreciation	(965,950)	(935,032)
	538,288	566,537
Construction work-in-progress	199	506
TOTAL ELECTRIC PLANT	538,487	567,043
OTHER ASSETS		
Regulatory assets	230,481	239,447
Other deposits and prepaids	6	44
TOTAL ASSETS	1,076,682	1,115,209
DEFERRED OUTFLOWS OF RESOURCES		
Excess cost on refunding of debt	40,850	50,346
Pension deferrals	13,506	9,093
TOTAL DEFERRED OUTFLOWS OF RESOURCES	54,356	59,439
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$ 1,131,038	\$ 1,174,648

COMBINED STATEMENTS OF NET POSITION

NORTHERN CALIFORNIA POWER AGENCY AND ASSOCIATED POWER CORPORATIONS

UNAUDITED

	March 31,	
	2018	2017
	(in thousands)	
LIABILITIES		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	\$ 27,642	\$ 21,548
Member advances	1,068	993
Operating reserves	21,103	20,020
Current portion of long-term debt	41,210	39,090
Accrued interest payable	9,567	10,441
TOTAL CURRENT LIABILITIES	100,590	92,092
NON-CURRENT LIABILITIES		
Net pension liability	64,589	57,774
Operating reserves and other deposits	141,734	140,863
Interest rate swap liability	13,819	16,870
Long-term debt, net	704,646	747,931
TOTAL NON-CURRENT LIABILITIES	924,788	963,438
TOTAL LIABILITIES	1,025,378	1,055,530
DEFERRED INFLOWS OF RESOURCES		
Regulatory credits	71,730	72,081
Pension deferrals	4,460	6,599
TOTAL DEFERRED INFLOWS OF RESOURCES	76,190	78,680
NET POSITION		
Net investment in capital assets	(63,626)	(62,418)
Restricted	62,603	58,677
Unrestricted	30,493	44,179
TOTAL NET POSITION	29,470	40,438
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	\$ 1,131,038	\$ 1,174,648

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

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

UNAUDITED

	Nine Months Ended March 31,	
	2018	2017
	(in thousands)	
OPERATING REVENUES		
Participants	\$ 268,625	\$ 254,429
Other Third-Party	160,986	96,336
TOTAL OPERATING REVENUES	429,611	350,765
OPERATING EXPENSES		
Purchased power	182,716	145,646
Operations	59,181	39,125
Transmission	100,374	74,527
Depreciation	23,237	23,068
Maintenance	15,053	11,209
Administrative and general	14,433	14,133
TOTAL OPERATING EXPENSES	394,994	307,708
NET OPERATING REVENUES	34,617	43,057
NON OPERATING (EXPENSES) REVENUES		
Interest expense	(29,692)	(26,063)
Interest income	4,086	797
Other	3,368	11,797
TOTAL NON OPERATING EXPENSES	(22,238)	(13,469)
FUTURE RECOVERABLE AMOUNTS	(5,764)	(10,072)
REFUNDS TO PARTICIPANTS	(11,205)	(7,041)
INCREASE (DECREASE) IN NET POSITION	(4,590)	12,475
NET POSITION, Beginning of year	34,060	27,963
NET POSITION, Period ended	\$ 29,470	\$ 40,438

OTHER FINANCIAL INFORMATION

COMBINING STATEMENT OF NET POSITION
NORTHERN CALIFORNIA POWER AGENCY
AND ASSOCIATED POWER CORPORATIONS
(000's omitted)

March 31, 2018

	GENERATING & TRANSMISSION RESOURCES									
	Geothermal	Hydroelectric	Multiple Capital Facilities	CT No. One	Lodi Energy Center	Transmission No. One	Purchased Power & Transmission	Associated Member Services	Other Agency	Combined
ASSETS										
CURRENT ASSETS										
Cash and cash equivalents	\$ 1	\$ -	\$ -	1	\$ 72	\$ -	\$ -	63	\$ 17,129	\$ 17,267
Investments	-	-	-	-	-	-	-	-	45,990	45,990
Accounts receivable	-	-	-	-	-	-	-	-	-	-
Participants	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	2	-	-	449	-	3,801	4,252
Interest receivable	-	-	-	-	-	-	104	-	168	272
Inventory and supplies	4,703	1,079	642	1,405	2,111	-	-	-	-	9,940
Prepaid expenses	383	582	42	61	392	-	-	18	-	2,159
Due from Agency and other programs*	16,898	7,037	2,232	(1,406)	14,882	-	5,784	14,785	(60,212)	-
TOTAL CURRENT ASSETS	21,985	8,698	2,917	63	17,457	-	6,337	14,866	7,557	79,880
RESTRICTED ASSETS										
Cash and cash equivalents	6,100	4,324	1	-	3,551	-	9,829	-	17,908	41,713
Investments	21,557	49,573	4,565	-	33,876	-	18,672	-	57,168	185,411
Interest receivable	138	114	8	-	116	-	-	-	328	704
TOTAL RESTRICTED ASSETS	27,795	54,011	4,574	-	37,543	-	28,501	-	75,404	227,828
ELECTRIC PLANT										
Electric plant in service	570,193	394,778	64,843	36,513	423,802	7,736	-	663	5,710	1,504,238
Less: accumulated depreciation	(534,842)	(259,860)	(47,813)	(34,433)	(77,900)	(7,736)	-	(389)	(2,977)	(965,950)
	35,351	134,918	17,030	2,080	345,902	-	-	274	2,733	538,288
Construction work-in-progress	-	-	-	-	121	-	-	-	78	199
TOTAL ELECTRIC PLANT	35,351	134,918	17,030	2,080	346,023	-	-	274	2,811	538,487
OTHER ASSETS										
Regulatory assets	299	139,643	11,078	-	23,082	-	-	-	56,379	230,481
Other deposits and prepaids	6	-	-	-	-	-	-	-	-	6
TOTAL ASSETS	85,436	337,270	35,599	2,143	424,105	-	34,838	15,140	142,151	1,076,682
DEFERRED OUTFLOWS OF RESOURCES										
Excess cost on refunding of debt	1,831	38,091	928	-	-	-	-	-	-	40,850
Pension deferrals	-	-	-	-	-	-	-	-	13,506	13,506
TOTAL DEFERRED OUTFLOWS OF RESOURCES	1,831	38,091	928	-	-	-	-	-	13,506	54,356
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$ 87,267	\$ 375,361	\$ 36,527	\$ 2,143	\$ 424,105	\$ -	\$ 34,838	\$ 15,140	\$ 155,657	\$ 1,131,038

* Eliminated in Combination

OTHER FINANCIAL INFORMATION

COMBINING STATEMENT OF NET POSITION

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

March 31, 2018

LIABILITIES	GENERATING & TRANSMISSION RESOURCES									
	Geothermal	Hydroelectric	Multiple Capital Facilities	CT No. One	Lodi Energy Center	Transmission	Purchased Power & Transmission	Associated Member Services	Other Agency	Combined
CURRENT LIABILITIES										
Accounts payable and accrued expenses	\$ 23	\$ 270	\$ 2	\$ 13	\$ 3,201	\$ -	\$ 17,475	\$ -	\$ 6,658	\$ 27,642
Member advances	791	-	-	-	-	-	-	277	-	1,068
Operating reserves	6,213	250	513	258	13,869	-	-	-	-	21,103
Current portion of long-term debt	4,250	22,610	3,995	-	10,355	-	-	-	-	41,210
Accrued interest payable	171	4,037	281	-	5,078	-	-	-	-	9,567
TOTAL CURRENT LIABILITIES	11,448	27,167	4,791	271	32,503	-	17,475	277	6,658	100,590
NON-CURRENT LIABILITIES										
Net pension liability	-	-	-	-	-	-	-	-	-	-
Operating reserves and other deposits	19,128	16,500	-	-	1,716	-	28,606	384	64,589	141,734
Interest rate swap liability	-	13,819	-	-	-	-	-	-	-	13,819
Long-term debt, net	24,520	309,230	30,273	-	340,623	-	-	-	-	704,646
TOTAL NON-CURRENT LIABILITIES	43,648	339,549	30,273	-	342,339	-	28,606	384	139,989	924,788
TOTAL LIABILITIES	55,096	366,716	35,064	271	374,842	-	46,081	661	146,647	1,025,378
DEFERRED INFLOW'S OF RESOURCES										
Regulatory credits	19,631	4,153	953	2,242	41,272	-	-	275	3,204	71,730
Pension deferrals	-	-	-	-	-	-	-	-	4,460	4,460
TOTAL DEFERRED INFLOWS OF RESOURCES	19,631	4,153	953	2,242	41,272	-	-	275	7,664	76,190
NET POSITION										
Net investment in capital assets	(5,011)	(32,534)	(6,143)	-	(20,774)	-	-	-	836	(63,626)
Restricted	7,609	29,389	4,293	-	21,308	-	-	-	4	62,603
Unrestricted	9,942	7,637	2,360	(370)	7,457	-	(11,243)	14,204	506	30,493
TOTAL NET POSITION	12,540	4,492	510	(370)	7,991	-	(11,243)	14,204	1,346	29,470
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	\$ 87,267	\$ 375,361	\$ 36,527	\$ 2,143	\$ 424,105	\$ -	\$ 34,838	\$ 15,140	\$ 155,657	\$ 1,131,038

OTHER FINANCIAL INFORMATION

COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

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

For the Nine Months Ended March 31, 2018

	GENERATING & TRANSMISSION RESOURCES									
	Geothermal	Hydroelectric	Multiple Capital Facilities	CT No. One	Lodi Energy Center	Transmission	Purchased Power & Transmission	Associated Member Services	Other Agency	Combined
OPERATING REVENUES										
Participants	\$ 1,452	\$ 12,848	\$ 4,646	\$ 874	\$ 18,517	\$ -	\$ 215,504	\$ 14,421	\$ 363	\$ 268,625
Other Third-Party	22,798	21,579	1,163	1,933	48,400	-	55,619	9,494	-	160,986
TOTAL OPERATING REVENUES	24,250	34,427	5,809	2,807	66,917	-	271,123	23,915	363	429,611
OPERATING EXPENSES										
Purchased power	232	1,884	347	308	4,105	-	175,840	-	-	182,716
Operations	11,235	2,855	1,363	1,414	32,808	-	2,625	6,881	-	59,181
Transmission	249	(66)	(18)	7	767	-	99,433	2	-	100,374
Depreciation	2,923	7,297	1,656	138	10,959	-	-	31	233	23,237
Maintenance	1,178	6,874	411	1,178	3,006	-	-	42	-	15,053
Administrative and general	3,776	2,509	525	578	3,195	-	-	5,140	(1,290)	14,433
Intercompany (sales) purchases, net*	(481)	196	47	82	211	-	-	(55)	-	-
TOTAL OPERATING EXPENSES	21,476	21,549	4,331	3,705	55,051	-	277,898	12,041	(1,057)	394,994
NET OPERATING REVENUES	2,774	12,878	1,478	(898)	11,866	-	(6,775)	11,874	1,420	34,617
NON OPERATING (EXPENSES) REVENUES										
Interest expense	(526)	(15,443)	(2,276)	-	(11,447)	-	-	-	-	(29,692)
Interest income	557	586	6	-	558	-	588	35	1,756	4,086
Other	1	85	1,081	-	1,857	-	-	44	300	3,368
TOTAL NON OPERATING (EXPENSES) REVENUES	32	(14,772)	(1,189)	-	(9,032)	-	588	79	2,056	(22,238)
FUTURE RECOVERABLE AMOUNTS	(434)	(6,366)	(393)	-	1,429	249	-	-	(249)	(5,764)
REFUNDS TO PARTICIPANTS	(2,905)	(1,045)	(151)	428	(2,480)	-	(1,288)	(2,241)	(1,523)	(11,205)
INCREASE (DECREASE) IN NET POSITION	(533)	(9,305)	(255)	(470)	1,783	249	(7,475)	9,712	1,704	(4,590)
NET POSITION, Beginning of year	13,073	13,797	765	100	6,208	(249)	(3,768)	4,492	(358)	34,060
NET POSITION, Period ended	\$ 12,540	\$ 4,492	\$ 510	\$ (370)	\$ 7,991	\$ -	\$ (11,243)	\$ 14,204	\$ 1,346	\$ 29,470

* Eliminated in Combination

NORTHERN CALIFORNIA POWER AGENCY & ASSOCIATED POWER CORPORATIONS
AGED ACCOUNTS RECEIVABLE
March 31, 2018

<u>Status</u>	<u>Participant / Customer</u>	<u>Description</u>	<u>Amount</u>
CURRENT			\$ 4,251,696
PAST DUE:			
1 - 30			
31 - 60			
61 - 90			
91 - 120			
Over 120 Days			
PARTICIPANT and OTHER RECEIVABLES (net)			<u>\$ 4,251,696</u>

NOTE: All amounts invoiced or credited to members and others are project/program specific.
NCPA does not apply any credits issued to outstanding invoices unless directed.

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

**Schedule of Disbursements
(Unaudited)**

For the Month of March 2018

Operations:

Geothermal	\$ 1,077,194
Hydroelectric	3,266,240
CT#1 Combustion Turbines	247,768
CT#2 STIG	498,106
Lodi Energy Center	5,036,699
NCPA Operating	<u>26,338,928</u>
Total	<u>\$ 36,464,935</u>



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Commission Staff Report

April 18, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: Treasurer's Report for Month Ended March 31, 2018

AGENDA CATEGORY: Consent

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

IMPACTED MEMBERS:

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

If other, please specify

RECOMMENDATION:

Approval by all members.

BACKGROUND:

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

Cash - At month end cash totaled \$2,892,805 of which approximately \$16,258 was applicable to Special and Reserve Fund Deposits, \$2,996 to Debt Service and \$2,873,551 to Operations and other.

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

Investments - The carrying value of NCPA's investment portfolio totaled \$287,509,614 at month end. The current market value of the portfolio totaled \$284,137,047.

The overall portfolio had a combined weighted average interest rate of 1.470% with a bond equivalent yield (yield to maturity) of 1.490%. Investments with a maturity greater than one year totaled \$148,875,000. March maturities totaled \$46 million and monthly receipts totaled \$35 million. During the month \$51 million was invested.

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

Interest Rates - During the month, rates on 90 day T-Bills increased 12 basis points (from 1.64% to 1.76%) and rates on one year T-Bills increased 7 basis points (from 2.02% to 2.09%).

To the best of my knowledge and belief, all securities held by NCPA as of March 31, 2018 are in compliance with the Agency's investment policy. There are adequate cash flow and investment maturities to meet next month's cash requirements.

FISCAL IMPACT:

This report has no direct budget impact to the Agency.

ENVIRONMENTAL ANALYSIS:

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

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachment

NORTHERN CALIFORNIA POWER AGENCY

TREASURER'S REPORT

MARCH 31, 2018

TABLE OF CONTENTS

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

**Northern California Power Agency
Treasurer's Report
Cash & Investment Balance
March 31, 2018**

	CASH	INVESTMENTS	TOTAL	PERCENT
NCPA FUNDS				
Operating	\$ 1,456,811	\$ 88,929,510	\$ 90,386,321	31.12%
Special Deposits	\$ 1,415,870	\$ -	\$ 1,415,870	0.49%
Construction	\$ 870	\$ 4,969,515	\$ 4,970,385	1.71%
Debt Service	\$ 2,996	\$ 40,503,851	\$ 40,506,847	13.95%
Special & Reserve	\$ 16,258	\$ 153,106,738	\$ 153,122,996	52.73%
	<u>\$ 2,892,805</u>	<u>\$ 287,509,614</u>	<u>\$ 290,402,419</u>	<u>100.00%</u>

Portfolio Investments at Market Value

\$ 284,137,047

NOTE A -Investment amounts shown at book carrying value.

**Northern California Power Agency
Treasurer's Report
Cash Activity Summary
March 31, 2018**

	RECEIPTS			EXPENDITURES			CASH
	OPS/CONSTR	INTEREST (NOTE B)	INVESTMENTS (NOTE A)	OPS/CONSTR	INVESTMENTS (NOTE B)	INTER-COMPANY/ FUND TRANSFERS	INCREASE / (DECREASE)
NCPA FUNDS							
Operating	\$ 34,311,509	\$ 10,226	\$ 38,941,900	\$ (20,305,796)	\$ (38,114,302)	\$ (15,106,585)	\$ (263,048)
Special Deposits	713,863	7	-	(9,573,964)	-	8,858,595	(1,499)
Construction	-	-	-	-	-	-	-
Debt Service	-	193	428	-	(6,008,617)	6,008,479	483
Special & Reserve	-	(7,614)	6,761,179	(565,326)	(6,427,750)	239,511	-
	<u>\$ 35,025,372</u>	<u>\$ 2,812</u>	<u>\$ 45,703,507</u>	<u>\$ (30,445,086)</u>	<u>\$ (50,550,669)</u>	<u>\$ -</u>	<u>\$ (264,064)</u>

NOTE A -Investment amounts shown at book carrying value.

NOTE B -Net of accrued interest purchased on investments.

**Northern California Power Agency
Treasurer's Report
Investment Activity Summary
March 31, 2018**

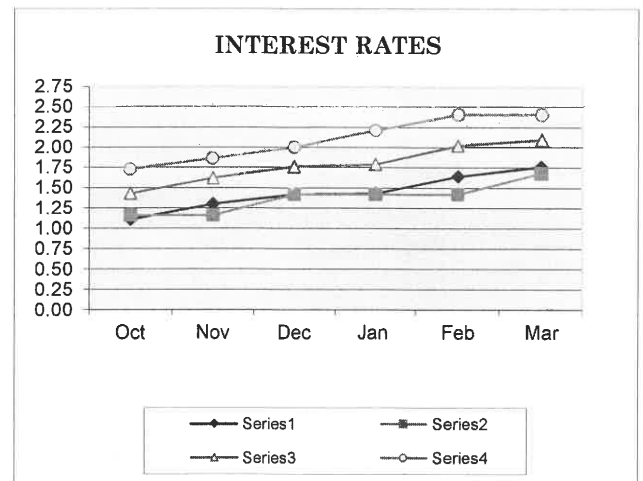
	PURCHASED	SOLD OR MATURED	(NON-CASH) DISC/(PREM) AMORT	(NON-CASH) GAIN/(LOSS) ON SALE	INVESTMENTS TRANSFERS	INCREASE / (DECREASE)
NCPA FUNDS						
Operating	\$ 38,114,302	\$ (38,941,900)	\$ (3,111)	\$ (23,919)	\$ -	\$ (854,628)
Special Deposits	-	-	-	-	-	-
Construction	-	-	635	-	-	635
Debt Service	6,008,617	(428)	46,119	-	-	6,054,308
Special & Reserve	6,427,750	(6,761,179)	(10,171)	(155,025)	-	(498,625)
	<u>\$ 50,550,669</u>	<u>\$ (45,703,507)</u>	<u>\$ 33,472</u>	<u>\$ (178,944)</u>	<u>\$ -</u>	<u>4,701,690</u>
Less Non- Cash Activity						
Disc/(Prem) Amortization & Gain/(Loss) on Sale						<u>145,472</u>
Net Change in Investment --Before Non-Cash Activity						<u>\$ 4,847,162</u>

NOTE A -Investment amounts shown at book carrying value.

Northern California Power Agency
Interest Rate/Yield Analysis
March 31, 2018

	WEIGHTED AVERAGE INTEREST RATE	BOND EQUIVALENT YIELD
OVERALL COMBINED	1.470%	1.490%
OPERATING FUNDS:	1.457%	1.421%
PROJECTS:		
Geothermal	1.639%	1.642%
Capital Facilities	1.896%	1.909%
Hydroelectric	1.570%	1.568%
Lodi Energy Center	1.770%	1.499%

KEY INTEREST RATES		
	CURRENT	PRIOR YEAR
Fed Fds (Overnight)	1.68%	0.91%
T-Bills (90da.)	1.76%	0.78%
Agency Disc (90da.)	1.69%	0.77%
T-Bills (1yr.)	2.09%	1.03%
Agency Disc (1yr.)	2.12%	1.10%
T-Notes (3yr.)	2.41%	1.53%



**Northern California Power Agency
Total Portfolio
Investment Maturities Analysis
March 31, 2018**

Type	0-7 Days	8-90 Days	91-180 Days	181-270 Days	271-365 Days	1-5 Years	6-10 Years	Total	Percent
US Government Agencies	\$ -	\$ 21,511	\$8,819	\$ 21,308	\$ 5,370	\$ 133,832	\$ -	\$ 190,840	66.05%
Corporate Bonds (MTN)	-	-	-	-	-	14,760	-	14,760	5.11%
US Bank Trust Money Market	6	-	-	-	-	-	-	6	0.00%
Commercial Paper	10,644	-	-	-	-	-	-	10,644	3.68%
Investment Trusts (LAIF)	52,357	-	-	-	-	-	-	52,357	18.12%
U.S.Treasury Market Acct. *	1,968	-	-	-	-	-	-	1,968	0.68%
U.S.Treasury Bill/Note	-	16,763	1,118	78	119	283	-	18,361	6.35%
Certificates of Deposit	10	-	-	-	-	-	-	10	0.00%
Total Dollars	\$ 64,985	\$38,274	\$9,937	\$21,386	\$5,489	\$148,875	\$0	\$ 288,946	100.00%
Total Percents	22.49%	13.25%	3.44%	7.40%	1.90%	51.52%	0.00%	100.00%	

Investments are shown at Face Value, in thousands.

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

NORTHERN CALIFORNIA POWER AGENCY

Detail Report Of Investments

APPENDIX

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

Northern California Power Agency
Treasurer's Report
03/31/2018

Operating

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
US Bank, N.A.	USB	9,323,900	1.000	11/26/2014	9,323,900		1	1.000	9,323,900	SYS70101	70101	9,323,900
Local Agency Investm	LAIF	14,326,574	1.204	07/01/2013	14,326,574		1	1.204	14,326,574	SYS70000	70000	14,326,574
Union Bank of Calif	UBOC	0	0.002	07/01/2013	0		1	0.002	0	SYS70014	70014	0
US Bank	USB	1,456,809	0.001	06/30/2013	1,456,809		1	0.001	1,456,809	SYS70050	70050	1,456,809
US Bank	USB	1,319,708	0.600	08/24/2017	1,319,708		1	0.600	1,319,708	SYS70056	70056	1,319,708
US Bank	USB	10,000	0.050	01/07/2018	10,000	04/07/2018	6	0.050	10,000	SYS30306	30306	10,000
Federal Farm Credit	UBOC	3,626,000	1.290	12/21/2015	3,624,948	11/19/2018	232	1.300	3,612,076	3133EFPJ0	26280	3,625,771
Federal Home Loan Mt	UBOC	7,370,000	1.750	06/09/2015	7,455,050	05/30/2019	424	1.450	7,335,656	3137EADG1	26231	7,394,903
Federal Home Loan Ba	UBOC	4,975,000	1.600	08/28/2017	4,990,373	07/17/2020	838	1.490	4,888,336	3130ABTW6	26466	4,987,221
Federal Home Loan Ba	UBOC	7,785,000	1.400	07/19/2016	7,781,108	01/19/2021	1,024	1.411	7,566,164	3130A8P80	26355	7,782,578
Federal Home Loan Mt	UBOC	3,000,000	2.530	03/29/2018	3,000,000	03/29/2021	1,093	2.530	3,000,780	3134GSGT6	26564	3,000,000
Home Depot Inc.	UBOC	500,000	2.000	03/21/2018	487,800	04/01/2021	1,096	2.846	487,935	437076BL5	26558	487,912
Federal Farm Credit	UBOC	2,602,000	1.720	08/28/2017	2,611,784	07/26/2021	1,212	1.620	2,530,705	3133EHSR5	26465	2,610,303
Federal Home Loan Mt	UBOC	3,500,000	1.500	11/23/2016	3,500,000	08/23/2021	1,240	1.500	3,361,505	3134GAVH4	26385	3,500,000
Federal Home Loan Mt	UBOC	202,000	2.200	01/30/2017	202,000	01/26/2022	1,396	2.200	197,097	3134GAV92	26403	202,000
PepsiCo Inc.	UBOC	500,000	2.250	03/21/2018	487,005	05/02/2022	1,492	2.924	486,320	713448DT2	26557	487,093
Apple Inc.	UBOC	1,123,337	2.300	02/01/2018	1,121,966	05/11/2022	1,501	2.329	1,093,939	037833CQ1	26525	1,122,019
Chevron Corp.	UBOC	500,000	2.355	03/21/2018	485,760	12/05/2022	1,709	3.008	485,225	16676AAB6	26555	485,844
Oracle Corp.	UBOC	500,000	2.625	03/21/2018	488,010	02/15/2023	1,781	3.154	488,735	68389XBR5	26556	488,078
Berkshire Hathaway I	UBOC	500,000	2.750	03/21/2018	492,280	03/15/2023	1,809	3.086	492,185	084670BR8	26554	492,323
Fund Total and Average		\$ 63,120,328	1.428		\$ 63,165,075		519	1.406	\$ 62,463,649			\$ 63,103,036

MPP GHG Auction Acct

Local Agency Investm		63,286	1.204	07/01/2013	63,286		1	1.204	63,286	SYS70045	70045	63,286
Fund Total and Average		\$ 63,286	1.205		\$ 63,286		1	1.205	\$ 63,286			\$ 63,286

SCPA Balancing Account

Local Agency Investm	LAIF	8,439,851	1.204	07/01/2013	8,439,851		1	1.204	8,439,851	SYS70022	70022	8,439,851
Union Bank of Calif	UBOC	34,464	0.002	07/01/2013	34,464		1	0.002	34,464	SYS70023	70023	34,464
Federal Home Loan Ba	UBOC	4,510,000	1.000	04/27/2015	4,510,000	04/27/2018	26	1.000	4,507,565	3130A5T2	26223	4,510,000
Federal National Mtg	UBOC	3,962,000	1.625	12/18/2014	4,000,630	11/27/2018	240	1.369	3,951,738	3135GOYT4	26187	3,968,425
Federal National Mtg	UBOC	5,098,000	1.350	04/28/2016	5,098,000	10/28/2019	575	1.350	5,025,659	3135GOJ95	26330	5,098,000
Federal National Mtg	UBOC	5,097,000	1.350	07/28/2016	5,097,000	07/28/2020	849	1.350	4,979,208	3136G3T39	26357	5,097,000
Fund Total and Average		\$ 27,141,315	1.285		\$ 27,179,945		307	1.248	\$ 26,938,485			\$ 27,147,740

**Northern California Power Agency
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General Operating Reserve

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
General Operating Reserve												
Local Agency Investm	LAIF	17,907,894	1.204	07/01/2013	17,907,894		1	1.204	17,907,894	SYS70000	70002	17,907,894
Union Bank of Califo	UBOC	0	0.002	07/01/2013	0		1	0.002	0	SYS70019	70019	0
US Bank	USB	0	0.000	07/01/2013	0		1	0.000	0	SYS70051	70051	0
Federal National Mtg	UBOC	5,970,000	1.625	12/23/2014	6,009,701	11/27/2018	240	1.450	5,954,538	3135GOYT4	26188	5,976,626
Federal National Mtg	UBOC	4,982,000	1.750	08/28/2015	5,047,364	11/26/2019	604	1.430	4,940,699	3135G0ZY2	26246	5,007,453
Federal Farm Credit	UBOC	4,285,000	1.440	07/20/2016	4,280,715	01/19/2021	1,024	1.463	4,157,050	3133EGMP7	26356	4,282,332
Federal Home Loan Ba	UBOC	16,720,000	1.400	07/19/2016	16,711,640	01/19/2021	1,024	1.411	16,250,001	3130A8P80	26354	16,714,798
Federal National Mtg	UBOC	5,162,000	1.625	05/25/2016	5,162,000	05/25/2021	1,150	1.625	5,011,941	3136G3NL5	26332	5,162,000
Federal National Mtg	UBOC	1,300,000	1.500	08/30/2016	1,300,000	05/28/2021	1,153	1.500	1,258,933	3136G33W3	26368	1,300,000
Federal Farm Credit	UBOC	10,629,000	1.690	06/02/2016	10,629,000	06/02/2021	1,158	1.690	10,341,804	3133EGDH5	26335	10,629,000
Federal Home Loan Mt	UBOC	467,000	2.200	01/30/2017	467,000	01/26/2022	1,396	2.200	455,666	3134GAV92	26402	467,000
Apple Inc.	UBOC	4,025,452	2.300	02/01/2018	4,020,538	05/11/2022	1,501	2.329	3,920,106	037833CQ1	26524	4,020,729
Federal Home Loan Ba	UBOC	3,575,000	2.125	08/28/2017	3,634,560	06/10/2022	1,531	1.760	3,498,066	313379Q69	26467	3,627,192

Fund Total and Average		\$ 75,023,346	1.543		\$ 75,170,412		772	1.496	\$ 73,696,698			\$ 75,095,024
GRAND TOTALS:		\$ 165,348,275	1.457		\$ 165,578,718		599	1.421	\$ 163,162,118.			\$ 165,409,086

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

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 03/31/2018

Investment #26330 FNMA Callable quarterly
Investment #26332 FNMA Callable quarterly
Investment #26335 FFCB Callable anytime
Investment #26354 FHLB Callable anytime
Investment #26355 FHLB Callable anytime
Investment #26356 FFCB Callable anytime
Investment #26357 FNMA Callable quarterly
Investment #26368 FNMA Callable quarterly
Investment #26385 FHLMC Callable quarterly
Investment #26402 FHLMC Callable quarterly
Investment #26403 FHLMC Callable quarterly
Investment #26564 FHLMC Callable until 3/29/19



Northern California Power Agency
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GEO 2012 Construction Fund

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Federal Home Loan Ba	USB	888,000	1.420	12/06/2017	881,450	06/11/2018	71	1.450	885,034	313385XY7A	26502	885,513
Fund Total and Average		\$ 888,000	1.420		\$ 881,450		71	1.450	\$ 885,034			\$ 885,513

Geothermal Debt Service

U.S. Treasury	USBT	1,056,000	1.499	01/03/2018	1,048,256	06/28/2018	88	1.532	1,051,702	912796PM5	26510	1,052,128
U.S. Treasury	USBT	235,000	1.510	01/31/2018	233,541	06/28/2018	88	1.540	234,044	912796PM5	26522	234,133
Federal Home Loan Ba	USBT	235,000	1.420	12/28/2017	233,276	07/02/2018	92	1.450	233,555	313385YV2	26509	234,147
Federal Home Loan Ba	USBT	235,000	1.679	02/27/2018	233,629	07/02/2018	92	1.713	233,555	313385YV2	26533	233,991
Federal Home Loan Ba	USBT	235,000	1.710	03/28/2018	233,928	07/02/2018	92	1.741	233,555	313385YV2	26560	233,973
Fund Total and Average		\$ 1,996,000	1.538		\$ 1,982,630		89	1.569	\$ 1,986,411			\$ 1,988,372

Geo 2012A Debt Service

U.S. Treasury	USBT	128,000	1.510	01/31/2018	127,205	06/28/2018	88	1.540	127,479	912796PM5	26519	127,528
Federal Home Loan Ba	USBT	124,000	1.679	02/27/2018	123,277	07/02/2018	92	1.713	123,237	313385YV2	26532	123,468
Federal Home Loan Ba	USBT	124,000	1.710	03/28/2018	123,435	07/02/2018	92	1.741	123,237	313385YV2	26561	123,458
Fund Total and Average		\$ 376,000	1.632		\$ 373,917		91	1.664	\$ 373,953			\$ 374,454

Geo 2016A Debt Service

U.S. Treasury	USBT	187,000	1.499	01/03/2018	185,629	06/28/2018	88	1.532	186,239	912796PM5	26512	186,314
U.S. Treasury	USBT	56,000	1.510	01/31/2018	55,652	06/28/2018	88	1.540	55,772	912796PM5	26517	55,793
U.S. Treasury	USBT	55,000	1.575	02/27/2018	54,709	06/28/2018	88	1.606	54,776	912796PM5	26530	54,788
U.S. Treasury	USBT	54,000	1.662	03/28/2018	53,771	06/28/2018	88	1.693	53,780	912796PM5	26562	53,780
Fund Total and Average		\$ 352,000	1.538		\$ 349,761		88	1.570	\$ 350,567			\$ 350,675

Geothermal Special Reserve

Union Bank of Calif	UBOC	0	0.002	07/01/2013	0		1	0.002	0	SYS70015	70015	0
Federal Home Loan Mt	UBOC	1,500,000	1.150	02/26/2016	1,500,000	11/26/2018	239	1.150	1,492,455	3134G8KVO	26302	1,500,000
Fund Total and Average		\$ 1,500,000	1.150		\$ 1,500,000		239	1.150	\$ 1,492,455			\$ 1,500,000

Geo Decommissioning Reserve

Local Agency Investm	LAIF	5,679,267	1.509	07/01/2013	5,679,267		1	1.509	5,679,267	SYS70027	70027	5,679,267
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Geo Decommissioning Reserve

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Union Bank of Calif	UBOC	363,684	0.002	07/01/2013	363,684		1	0.002	363,684	SYS70034	70034	363,684
Federal National Mtg	UBOC	5,500,000	1.500	08/30/2016	5,500,000	05/28/2021	1,153	1.500	5,326,255	3136G33W3	26369	5,500,000
PNC Bank NA	UBOC	750,000	2.550	03/15/2018	735,450	12/09/2021	1,348	3.103	732,293	69353REY0	26553	735,623
Federal Home Loan Mt	UBOC	941,000	2.200	01/30/2017	941,000	01/26/2022	1,396	2.200	918,162	3134GAV92	26404	941,000
Apple Inc.	UBOC	861,211	2.300	11/29/2017	860,117	05/11/2022	1,501	2.329	838,673	037833CQ1	26499	860,201
Walt Disney Company/	UBOC	750,000	2.350	03/15/2018	728,580	12/01/2022	1,705	3.004	725,085	25468PCW4	26551	728,782
General Electric Co.	UBOC	750,000	3.100	03/15/2018	740,385	01/09/2023	1,744	3.390	734,753	36962G6S8	26552	740,474
John Deere Capital C	UBOC	750,000	2.800	03/15/2018	739,748	01/27/2023	1,762	3.104	737,040	2442ZERT8	26550	739,841
Bank of NY Mellon Co	UBOC	750,000	2.950	03/15/2018	740,610	01/29/2023	1,764	3.229	740,580	06406RAE7	26549	740,696
IBM Credit LLC	UBOC	500,000	3.000	03/15/2018	496,820	02/06/2023	1,772	3.140	494,735	44832HAH6	26548	496,849
Fund Total and Average		\$ 17,595,162	1.855		\$ 17,525,661		911	1.947	\$ 17,290,527			\$ 17,526,417

GEO Debt Service Reserve Acct

U.S. Treasury	USB	56,000	1.823	02/27/2018	55,041	01/31/2019	305	1.872	55,060	912798PP8	26536	55,135
Federal Home Loan Mt	USBT	907,000	1.750	06/02/2015	920,886	05/30/2019	424	1.354	902,773	3137EADG1	26228	911,046
Federal Home Loan Mt	USBT	2,515,000	1.250	02/27/2015	2,483,839	10/02/2019	549	1.530	2,477,300	3137EADM8	26197	2,504,814
Fund Total and Average		\$ 3,478,000	1.390		\$ 3,459,766		512	1.490	\$ 3,435,133			\$ 3,470,995

Geo 2012A DSR Account

U.S. Treasury	USB	41,000	1.555	01/03/2018	40,403	12/06/2018	249	1.594	40,475	912798PE3	26511	40,559
Federal National Mtg	USBT	1,517,000	1.625	05/25/2016	1,517,000	05/25/2021	1,150	1.625	1,472,901	3136G3NLS	26333	1,517,000
Fund Total and Average		\$ 1,558,000	1.623		\$ 1,557,403		1127	1.624	\$ 1,513,376			\$ 1,557,559
GRAND TOTALS:		\$ 27,743,162	1.701		\$ 27,630,588		729	1.777	\$ 27,327,456.			\$ 27,653,985

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

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 03/31/2018

Investment #26302 FHLMC Callable quarterly
Investment #26333 FNMA Callable quarterly
Investment #26369 FNMA Callable quarterly
Investment #26404 FHLMC Callable quarterly

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Capital Dev. Reserve Hydro

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm	LAIF	4,270,313	1.204	07/01/2013	4,270,313		1	1.204	4,270,313	SYS700028	70028	4,270,313
Union Bank of Calif	UBOC	38,091	0.002	07/01/2013	38,091		1	0.002	38,091	SYS700031	70031	38,091
Federal Home Loan Mt	UBOC	1,993,000	0.950	06/29/2016	1,993,000	06/29/2018	89	0.950	1,988,316	3134G9A80	26339	1,993,000
Federal Home Loan Mt	UBOC	3,221,000	1.150	02/29/2016	3,221,000	11/26/2018	239	1.150	3,204,798	3134G8KVO	26304	3,221,000
Federal National Mtg	UBOC	5,320,000	1.350	06/30/2016	5,320,000	12/30/2019	638	1.350	5,235,838	3136G3VH5	26340	5,320,000
Public Storage	UBOC	500,000	2.370	03/14/2018	485,770	09/15/2022	1,628	3.051	481,455	74460DAB5	26546	485,919
Visa Inc.	UBOC	500,000	2.800	03/14/2018	494,470	12/14/2022	1,718	3.051	493,625	92826CAC6	26547	494,525
Oracle Corp.	UBOC	500,000	2.625	03/14/2018	488,715	02/15/2023	1,781	3.121	488,735	68389XBR5	26545	488,823
Boeing Co.	UBOC	500,000	2.800	03/14/2018	496,070	03/01/2023	1,795	2.971	495,085	097023BW4	26544	496,107
Fund Total and Average		\$ 16,842,404	1.376		\$ 16,807,429		461	1.423	\$ 16,696,256			\$ 16,807,778

Hydro Initial Facilities

U.S. Treasury	USB	97,000	1.435	12/07/2017	96,296	06/07/2018	67	1.465	96,704	912796PJ2	26503	96,741
U.S. Treasury	USB	16,000	1.680	02/27/2018	15,868	08/23/2018	144	1.717	15,882	912796PV5	26540	15,892
Federal National Mtg	USB	1,529,000	1.625	12/12/2014	1,539,244	11/27/2018	240	1.450	1,525,040	3135GOVY4	26189	1,530,697
Federal Farm Credit	USB	2,437,000	1.250	02/02/2016	2,450,501	01/22/2019	296	1.060	2,423,231	3133EFVQ7	26300	2,440,672
Fund Total and Average		\$ 4,079,000	1.397		\$ 4,101,909		269	1.218	\$ 4,060,857			\$ 4,084,002

Hydro Debt Service

U.S. Treasury	USBT	11,923,000	1.500	01/03/2018	11,835,565	06/28/2018	88	1.532	11,874,473	912796PM5	26513	11,879,282
U.S. Treasury	USBT	2,972,000	1.510	01/31/2018	2,953,550	06/28/2018	88	1.540	2,959,904	912796PM5	26515	2,961,030
Federal Home Loan Ba	USBT	2,971,000	1.680	02/27/2018	2,953,669	07/02/2018	92	1.713	2,952,728	313385YV2	26531	2,958,245
Federal Home Loan Ba	USBT	2,967,000	1.710	03/28/2018	2,953,470	07/02/2018	92	1.741	2,948,753	313385YV2	26563	2,954,034
Fund Total and Average		\$ 20,833,000	1.557		\$ 20,696,254		89	1.589	\$ 20,735,858			\$ 20,752,591

Hydro Debt Service Resrv 2010A

U.S. Treasury	USB	50,000	1.159	08/29/2017	49,568	05/24/2018	53	1.183	49,881	912796MB2	26473	49,915
U.S. Treasury	USB	52,000	1.625	02/27/2018	51,780	06/30/2019	455	1.945	51,644	91282WS5	26537	51,795
Federal Home Loan Ba	USB	135,000	4.375	07/28/2017	142,601	07/01/2019	456	1.400	138,595	3133XU3G6	26451	139,935
Federal Farm Credit	USB	5,528,000	1.750	08/28/2015	5,546,187	08/04/2020	856	1.680	5,442,869	3133EE529	26243	5,536,633
Fund Total and Average		\$ 5,765,000	1.807		\$ 5,790,136		836	1.671	\$ 5,682,989			\$ 5,778,278

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Hydro 2012A Rebate Account

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Federal Home Loan Mt	USB	689,000	1.875	04/28/2017	691,391	08/09/2021	1,226	1.790	674,414	3134G93A3	26432	690,874
Fund Total and Average		\$ 689,000	1.875		\$ 691,391		1226	1.790	\$ 674,414			\$ 690,874

Hydro Special Reserve

Local Agency Investm	LAIF	0	0.377	07/01/2013	0		1	0.377	0	SYS70000	70003	0
Union Bank of Califo	UBOC	0	0.002	07/01/2013	0		1	0.002	0	SYS70016	70016	0
Federal Home Loan Mt	UBOC	1,500,000	1.150	02/26/2016	1,500,000	11/26/2018	239	1.150	1,492,455	3134G8KVO	26303	1,500,000
Fund Total and Average		\$ 1,500,000	1.150		\$ 1,500,000		239	1.150	\$ 1,492,455			\$ 1,500,000

Hydro 2012 Cost of Issuance

US Bank	USB	0	0.040	07/01/2013	0		1	0.040	0	SYS79061	79061	0
Fund Total and Average		\$ 0	*** ***		\$ 0		****	**** ***	\$ 0			\$ 0

Hydro 2012 DSRA

Federal Farm Credit	USB	100,000	1.750	08/28/2015	100,329	08/04/2020	856	1.680	98,460	3133EE5Z9	26244	100,156
U.S. Treasury	USB	146,000	2.250	02/27/2018	145,992	02/15/2021	1,051	2.251	145,441	9128283X6	26539	145,993
Federal National Mtg	USB	94,000	1.530	07/28/2016	94,000	07/28/2021	1,214	1.530	90,167	3136G3S97	26359	94,000
Federal Home Loan Mt	USB	3,928,000	2.375	02/09/2012	3,926,232	01/13/2022	1,383	2.380	3,900,072	3137EADB2	25852	3,927,326
Fund Total and Average		\$ 4,268,000	2.337		\$ 4,266,553		1356	2.340	\$ 4,234,140			\$ 4,267,475
GRAND TOTALS:		\$ 53,976,404	1.570		\$ 53,853,672		418	1.568	\$ 53,576,969.			\$ 53,880,998

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

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 03/31/2018

Investment #26303 FHLMC Callable quarterly
Investment #26339 FHLMC Callable quarterly
Investment #26340 FNMA Callable quarterly
Investment #26359 FNMA Callable quarterly

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Cap Facilities Debt Service

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
U.S. Treasury	USBT	1,085,000	1.559	01/31/2018	1,076,725	07/26/2018	116	1.593	1,078,891	912796PR4	26521	1,079,546
Federal Home Loan Ba	USBT	1,462,000	1.740	02/27/2018	1,451,047	08/01/2018	122	1.777	1,452,906	313385A30A	26542	1,453,379
Federal Home Loan Ba	USBT	466,000	1.770	03/27/2018	463,090	08/01/2018	122	1.805	463,101	313385A30A	26559	463,205
Fund Total and Average		\$ 3,013,000	1.680		\$ 2,990,862		120	1.716	\$ 2,994,898			\$ 2,996,130
Cap. Fac. Debt Svc Reserve												
U.S. Treasury	USB	17,000	1.680	02/27/2018	16,860	08/23/2018	144	1.717	16,875	912796PV5	26541	16,886
U.S. Treasury	USB	37,000	1.554	01/03/2018	36,461	12/06/2018	249	1.594	36,526	912796PE3	26514	36,602
Federal National Mig	USB	71,000	1.530	07/28/2016	71,000	07/28/2021	1,214	1.530	68,105	3136G3S97	26358	71,000
Federal Home Loan Mt	USB	1,443,000	2.375	02/13/2012	1,447,430	01/13/2022	1,383	2.340	1,432,740	3137EADB2	25845	1,444,690
Fund Total and Average		\$ 1,568,000	2.310		\$ 1,571,751		1336	2.279	\$ 1,554,246			\$ 1,569,178
GRAND TOTALS:		\$ 4,581,000	1.896		\$ 4,562,613		538	1.909	\$ 4,549,144.			\$ 4,565,308

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

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 03/31/2018
Investment #26358 FNMA Callable quarterly



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LEC GHG Auction Acct

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		72,256	1.204	07/01/2013	72,256		1	1.204	72,256	SYS70046	70046	72,256

Fund Total and Average \$ 72,256 1.205 \$ 72,256 1 1.205 \$ 72,256 \$ 72,256

LEC Issue#1 2010A DS Fund

US Bank Trust	USB	1,295	0.600	07/01/2013	1,295		1	0.600	1,295	SYS79003	79003	1,295
Federal Home Loan Ba	USBT	3,542,000	1.350	12/28/2017	3,522,342	05/25/2018	54	1.376	3,533,145	313385XF8	26505	3,534,827
Federal Home Loan Ba	USBT	698,000	1.474	01/31/2018	694,568	05/31/2018	60	1.502	696,053	313385XM3	26520	696,284
Federal Home Loan Ba	USBT	488,000	1.705	03/27/2018	486,498	05/31/2018	60	1.734	486,638	313385XM3	26565	486,613
Federal Home Loan Ba	USBT	489,000	1.640	02/27/2018	486,906	06/01/2018	61	1.669	487,597	313385XN1A	26529	487,641

Fund Total and Average \$ 5,218,295 1.427 \$ 5,191,609 56 1.454 \$ 5,204,728 \$ 5,206,660

LEC Issue #1 2010B DS Fund

US Bank Trust	USB	1,134	0.600	07/01/2013	1,134		1	0.600	1,134	SYS79004	79004	1,134
Federal Home Loan Ba	USBT	735,000	1.350	12/28/2017	730,921	05/25/2018	54	1.376	733,163	313385XF8	26506	733,512
Federal Home Loan Ba	USBT	729,000	1.475	01/31/2018	725,416	05/31/2018	60	1.502	726,966	313385XM3	26518	727,208
Federal Home Loan Ba	USBT	727,000	1.705	03/27/2018	724,762	05/31/2018	60	1.734	724,972	313385XM3	26566	724,934
Federal Home Loan Ba	USBT	729,000	1.640	02/27/2018	725,878	06/01/2018	61	1.669	726,908	313385XN1A	26528	726,974

Fund Total and Average \$ 2,921,134 1.542 \$ 2,908,111 59 1.570 \$ 2,913,143 \$ 2,913,762

LEC Issue #2 2010A DS Fund

US Bank Trust	USB	1,257	0.600	07/01/2013	1,257		1	0.600	1,257	SYS79011	79011	1,257
Federal Home Loan Ba	USBT	2,844,000	1.350	12/28/2017	2,828,216	05/25/2018	54	1.376	2,836,890	313385XF8	26507	2,838,241
Federal Home Loan Ba	USBT	441,000	1.475	01/31/2018	438,832	05/31/2018	60	1.502	439,770	313385XM3	26516	439,916
Federal Home Loan Ba	USBT	438,000	1.705	03/27/2018	436,652	05/31/2018	60	1.734	436,778	313385XM3	26567	436,755
Federal Home Loan Ba	USBT	439,000	1.640	02/27/2018	437,120	06/01/2018	61	1.669	437,740	313385XN1A	26527	437,780

Fund Total and Average \$ 4,163,257 1.431 \$ 4,142,077 56 1.458 \$ 4,152,435 \$ 4,153,949

LEC Issue #2 2010B DS Fund

US Bank Trust	USB	831	0.600	07/01/2013	831		1	0.600	831	SYS79012	79012	831
Federal Home Loan Ba	USBT	355,000	1.350	12/28/2017	353,030	05/25/2018	54	1.376	354,113	313385XF8	26508	354,281
Federal Home Loan Ba	USBT	350,000	1.474	01/31/2018	348,279	05/31/2018	60	1.502	349,024	313385XM3	26523	349,140
Federal Home Loan Ba	USBT	349,000	1.705	03/27/2018	347,926	05/31/2018	60	1.734	348,026	313385XM3	26568	348,008

Northern California Power Agency
Treasurer's Report
03/31/2018

LEC Issue #2 2010B DS Fund

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Federal Home Loan Ba	USBT	351,000	1.640	02/27/2018	349,497	06/01/2018	61	1.669	349,993	313385XN1A	26526	350,025
Fund Total and Average		\$ 1,405,831	1.541		\$ 1,399,563		59	1.569	\$ 1,401,987			\$ 1,402,285

LEC Issue#1 2017A DS Fund

Federal Home Loan Ba	USBT	183,000	1.705	03/27/2018	182,437	05/31/2018	60	1.734	182,489	313385XM3	26569	182,480
Federal Home Loan Ba	USBT	183,000	1.640	02/28/2018	182,225	06/01/2018	61	1.669	182,475	313385XN1A	26543	182,491
Fund Total and Average		\$ 366,000	1.672		\$ 364,662		61	1.702	\$ 364,964			\$ 364,971

LEC Issue #1 2010 DSR Fund

US Bank Trust	USB	190	0.600	07/01/2013	190		1	0.600	190	SYS79005	79005	190
U.S. Treasury	USB	85,000	1.625	02/27/2018	84,641	06/30/2019	455	1.945	84,419	912828WS5	26538	84,665
Federal Farm Credit	USB	4,360,000	1.660	06/08/2016	4,360,000	05/25/2021	1,150	1.659	4,242,760	3133EGGBZ7	26337	4,360,000
Federal Home Loan Mt	USB	150,000	1.125	07/28/2017	146,648	08/12/2021	1,229	1.699	143,291	3137EAEC9	26454	147,208
Federal Home Loan Ba	USB	4,100,000	2.125	08/28/2017	4,168,306	06/10/2022	1,531	1.760	4,011,768	313379Q69	26463	4,159,857
Fund Total and Average		\$ 8,695,190	1.872		\$ 8,759,785		1326	1.711	\$ 8,482,428			\$ 8,751,920

LEC Iss#1 2010B BABS Subs Resv

US Bank Trust	USB	396	0.600	07/01/2013	396		1	0.600	396	SYS79006	79006	396
U.S. Treasury	USB	38,000	1.823	02/27/2018	37,349	01/31/2019	305	1.872	37,362	912796PP8	26534	37,413
Federal Home Loan Ba	USB	2,145,000	3.375	07/28/2017	2,255,146	06/12/2020	803	1.540	2,190,431	313370E38	26455	2,229,260
Fund Total and Average		\$ 2,183,396	3.349		\$ 2,292,891		795	1.545	\$ 2,228,189			\$ 2,267,069

LEC Issue #2 2010B DSR BABS

US Bank Trust	USB	623	0.600	07/01/2013	623		1	0.600	623	SYS79013	79013	623
U.S. Treasury	USB	25,000	1.823	02/27/2018	24,572	01/31/2019	305	1.872	24,581	912796PP8	26535	24,614
Federal Home Loan Ba	USB	1,025,000	4.375	07/28/2017	1,082,708	07/01/2019	456	1.400	1,052,296	3133XU3G6	26456	1,062,472
Fund Total and Average		\$ 1,050,623	4.315		\$ 1,107,903		452	1.410	\$ 1,077,500			\$ 1,087,709

LEC O & M Reserve

Local Agency Investm		1,597,756	1.204	07/01/2013	1,597,756		1	1.204	1,597,756	SYS70047	70047	1,597,756
Union Bank of Calif	UBOC	74,925	0.002	07/18/2013	74,925		1	0.002	74,925	SYS70041	70041	74,925
Federal National Mtg	UBOC	2,933,000	1.875	08/28/2015	2,998,142	02/19/2019	324	1.220	2,926,459	3135G0ZA4	26248	2,949,559
Federal Home Loan Ba	USB	3,615,000	1.540	06/30/2017	3,613,952	06/05/2020	796	1.550	3,551,123	3130ABJQ0	26440	3,614,221



Northern California Power Agency
Treasurer's Report

03/31/2018

LEC O & M Reserve

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Federal National Mtg	UBOC	3,000,000	1.300	06/30/2016	3,000,000	06/30/2020	821	1.300	2,930,280	3136G3UJ2	26341	3,000,000
Fund Total and Average		\$ 11,220,681	1.506		\$ 11,284,775		560	1.337	\$ 11,080,543			\$ 11,236,461
GRAND TOTALS:		\$ 37,296,663	1.770		\$ 37,523,632		560	1.499	\$ 36,978,173.			\$ 37,457,042

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.
Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 03/31/2018
Investment #26337 FFCB Callable anytime




Commission Staff Report

April 18, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: Sale or Disposal of Surplus Property

AGENDA CATEGORY: Consent

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

IMPACTED MEMBERS:

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

If other, please specify

RECOMMENDATION:

Note and file report by all members for the disposal of 2 portable air compressors, 1997 Ford F800 boom truck, 2000 Ford E350 van, 1999 snorkel man lift, 1997 Ford Ranger, 1999 Ford Ranger, 2004 Ford E-350 with utility bed, office furniture, 23 iPhones, and 2 black and white copiers.

BACKGROUND:

The NCPA Policy for the Disposal or Destruction of Surplus Supplies, Materials, or Equipment requires that such disposal or destruction be reported to the NCPA Commission within 60 days of such action.

In accordance with that policy, the following disposal or destruction is hereby reported:

<u>Property Description</u>	<u>Quantity</u>	<u>*Method of Disposal</u>	<u>Net Cost From Disposal</u>	
Ingersol Rand portable air compressor	2	PS	\$	1501.00
1997 Boom Truck F-800	1	PS	\$	5682.00
2000 Ford Van E-350	1	PS	\$	1500.00
Snorkel Manlift ATB	1	PS	\$	5125.00
1997 Ford Ranger	1	PS	\$	1500.00
1999 Ford Ranger	1	PS	\$	1500.00
2004 Ford F-350	1	PS	\$	1860.00
iPhone 5	21	S	\$	760.88
iPhone 6	2	S	\$	97.00
Sharp B&W Copiers	2	S	\$	(250.00)
Office furniture (bookcases, desks, chairs, etc.)	19	S	\$	0.00
		Total	\$	19275.88

* Note: Public Sale (PS); Private Sale (P), Disposal – Net Scrap Value (S)

FISCAL IMPACT:

This report has no direct fiscal impact to the Agency.

ENVIRONMENTAL ANALYSIS:

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

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. S. Howard".

RANDY S. HOWARD
General Manager

Attachments:

- Declarations of Surplus


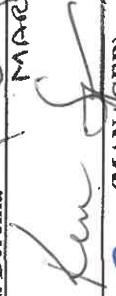



Date: 1/30/2018

NORTHERN CALIFORNIA POWER AGENCY
DECLARATION OF EXCESS

Item #	QTY	U/M*	DESCRIPTION (Including All Applicable Model #'s, LCNs & VINs)	COND **	ESTIMATED VALUE UNIT	ESTIMATED VALUE TOTAL	NCPA Program or Project	SITE LOCATION
1	1		Ingersol Rand 335 Portable Air compressor, 1984 VIN#156855-156867, GVW 4500 Hrs. 4513.0	Aver		\$500.00	GP-251	Geothermal
2	1		Ingersol Rand 250 Portable Air Compressor, 1988 VIN#169382-488356, GVW 4500, Hrs. 4780.0	Aver		\$500.00	GP-489	Geothermal Facility
3	1		Boom Truck UG-500 1997 Ford F-800, 26,481.0 miles, 6,945.5 hrs., 5.9 Cummins Engine, standard trans., 70' boom VIN#1FDFX80C0WA00820, OUT RIGGER PROBLEM	Aver		\$5000.00	GP-500	Geothermal Facility
4	1		2000 E350 Ford Van, High Mileage w/engine knock. VIN#1FTSE34L6YHA72091, lic# 1009974, 201,579 miles	Aver		\$1500.00	GP-951	Geothermal Facility
5	1		1999 Snorkel Manlift A.T.B 60 Ft, 3079.0 hrs., SN#993311, Failed inspection / inoperable	Poor		\$500.00		Geothermal Facility
6	1		1997 4X4 Ford Ranger PU Regular Cab, stick shift VIN#1FTCR11UOVTA5533, 116,843 Miles	Aver		\$500.00	GP-494	Geothermal Facility
7	1		1999 4X4 Ford Ranger PU Regular Cab, stick shift, 168,069 Mi. Camper Shell VIN#1FTYR11U2WPA38569	Aver		\$500.00	GP-495	Geothermal Facility
8	1		2004 Ford F-350 w/utility bed, Diesel Engine, Box Mounted Crane, 150,000 Miles (?)	Aver		\$1500.00	GP-952	Geothermal Facility

JUSTIFICATION FOR EXCESS/DISPOSAL: All of the vehicles and equipment were purchase used or given to the Geothermal Facility from the Hydro or LEC Facilities. All of them are requiring repairs, all have many miles and lack dependability.

PREPARED BY: Tom Derenia	 MARTY LEBSEN	RECOMMENDED DISPOSITION: PUBLIC SALE <input checked="" type="checkbox"/> PRIVATE SALE <input type="checkbox"/>
APPROVED BY: 	ORG. CODE:	DISPOSAL <input type="checkbox"/> NO NET SCRAP VALUE <input type="checkbox"/>
AUTHORIZATION TO PROCEED:  (MANAGER)	DATE: 3/1/18	*U/M = UNIT OF MEASURE
(GENERAL MANAGER)		** CONDITION: EXCELLENT (E), GOOD (G), AVERAGE (A), POOR (P), SCRAP (S)

Disposal of Surplus Property
 Geysers Geothermal Facility
 Bid Date/Time: April 4, 2018 at 2:00 PM PST

	Heath Fifield	Martin Trujillo	Charles Beck	Dean Watson	Shawn Beverlin	Ken Gifford	Frank Delfino	Paul House
Item 1: Ingersoll Rand 335 Portable Air Compressor, 1984	\$ 835.00	\$ 45.00					\$ 651.00	
Item 2: Ingersoll Rand 250 Portable Air Compressor, 1988	\$ 542.00	\$ 50.00					\$ 666.00	
Item 3: Boom Truck UG-500 1997 Ford F-800 26,481 Miles	\$ 5,682.00	\$ 350.00				\$ 750.00	\$ 3,651.00	
Item 4: 2000 E350 Ford Van Miles 201,579	\$ 435.00	\$ 250.00		\$ 1,500.00		\$ 1,025.00		
Item 5: 1999 Snorkel Manlift A.T.B 60 FT 3079 Hours	\$ 1,483.00	\$ 100.00				\$ 500.00	\$ 5,125.00	
Item 6: 1997 4X4 Ford Ranger PU Reg. Cab, Stick Shift, 116,843	\$ 1,352.00	\$ 185.00		\$ 1,500.00			\$ 651.00	
Item 7: 1999 4X4 Ford Ranger PU Reg. Cab, Stick Shift, 168,069 Miles	\$ 1,251.00	\$ 150.00	\$ 300.00	\$ 1,500.00	\$ 755.00		\$ 651.00	
Item 8: 2004 Ford F-350 Diesel, 150,000 Miles	\$ 1,483.00	\$ 225.00				\$ 1,025.00	\$ 1,860.00	



Bid on Sale of Surplus
Property/Bill of Sale

INSTRUCTIONS:

1. Read and complete this form.
2. Place in sealed envelope with your name on outside and return to NCPA representative.
3. The successful bidder will be so notified within 24 hours after the scheduled bid opening.
4. This form may also constitute a Bill of Sale for all sales of surplus whether by sealed bid, auction or a negotiated sale.

DECLARATION:

- I understand that if I am the successful bidder, I must render payment and remove the subject property within 48 hours of receipt of such notice, unless other arrangements are approved in writing by NCPA prior to the bid opening.
- I have read and acknowledge the terms and conditions of sale noted hereon and on the reverse side hereof.
- I hereby submit the following bid as described below:

NCPA Property ID No.	Description	Quantity	Net Unit Price Bid	Total Bid Amount
Item #1	Ingersoll Rand 335	1	\$ 835	\$ 835 ⁰⁰
Item #2	Ingersoll Rand 250	1	\$ 542	\$ 542 ⁰⁰
Item #3	Boom Truck 1997 Ford	1	\$ 5682	\$ 5682 ⁰⁰

Signature of Bidder/Buyer:

Date: 3/28/18

Location of Property:

Geyser

NOTES:

- NCPA reserves the right to accept or decline all or any part of the above bid.
- Terms and conditions of sale are stated on reverse side of this form and are effective for all sales, whether by sealed bid, auction or a negotiated sale.

Bid Accepted by:
(Highest only)

(NCPA Representative)

Date:

4/4/2018

DISTRIBUTION:

Original to Treasurer-Controller
Copy to Successful Highest Bidder



EMPLOYEES OF
NORTHERN CALIFORNIA POWER AGENCY
OR IT'S CONTRACTORS

To be eligible to participate in this sale, you must certify by signing below:

I hereby certify that I have not:

- a) Participated in the determination to dispose of the property,
- b) Participated in the preparation of the property for sale,
- c) Participated in determining the method of sale,
- d) Acquired information not otherwise available to the general public regarding usage, condition, quality or value of the property.

Signed: _____

Organization: _____

Original to Treasurer-Controller



Bid on Sale of Surplus
Property/Bill of Sale

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- **I have read and acknowledge the terms and conditions of sale noted hereon and on the reverse side hereof.**
- I hereby submit the following bid as described below:

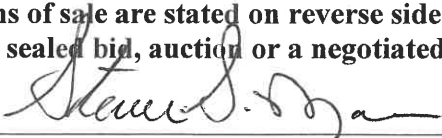
NCPA Property ID No.	Description	Quantity	Net Unit Price Bid	Total Bid Amount
Item 6	1997 Ford Ranger	1	1500	1500
Item 7	1999 Ford Ranger	1	1500	1500
Item 4	2000 Ford Van	1	1500	1500

Signature of Bidder/Buyer:  Date: 03-27-18

Location of Property: _____

NOTES:

- **NCPA reserves the right to accept or decline all or any part of the above bid.**
- **Terms and conditions of sale are stated on reverse side of this form and are effective for all sales, whether by sealed bid, auction or a negotiated sale.**

• Bid Accepted by:  Date: 4/4/2018
(Highest only) (NCPA Representative)

DISTRIBUTION: Original to Treasurer-Controller
Copy to Successful Highest Bidder



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NORTHERN CALIFORNIA POWER AGENCY
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- c) Participated in determining the method of sale,
- d) Acquired information not otherwise available to the general public regarding usage, condition, quality or value of the property.

Signed: _____

Jim White

Organization: _____

NCPA

Original to Treasurer-Controller



FRANK DELFINO
14120 ROCK PILE ROAD
GEYSERVILLE, CA

Bid on Sale of Surplus
Property/Bill of Sale

95441
PHONE: 707-484-5251

INSTRUCTIONS:

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DECLARATION:

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- **I have read and acknowledge the terms and conditions of sale noted hereon and on the reverse side hereof.**
- I hereby submit the following bid as described below:

NCPA Property ID No.	Description	Quantity	Net Unit Price Bid	Total Bid Amount
Item 1	Ingersoll Rand Air Compressor	1		651.00
Item 2	Ingersoll Rand Air Compressor	1		666.00
Item 3	Fore Boom Truck	1		3651.00

Signature of Bidder/Buyer: Frank Delfino

Date: 4-2-18

Location of Property: Geyserville

NOTES:

- **NCPA reserves the right to accept or decline all or any part of the above bid.**
- **Terms and conditions of sale are stated on reverse side of this form and are effective for all sales, whether by sealed bid, auction or a negotiated sale.**

Bid Accepted by:
(Highest only)

Steve S. [Signature]
(NCPA Representative)

Date:

4/4/2018

DISTRIBUTION:

Original to Treasurer-Controller
Copy to Successful Highest Bidder



Bid on Sale of Surplus
Property/Bill of Sale

INSTRUCTIONS:

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- I hereby submit the following bid as described below:

NCPA Property ID No.	Description	Quantity	Net Unit Price Bid	Total Bid Amount
Item 6	For2 Renser	1		651.00
Item 7	For2 Renser	1		651.00
Item 8	2004 For2 F350	1		1860.00

Signature of Bidder/Buyer: _____

Date: 4-2-18

Location of Property: _____

NOTES:

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Bid Accepted by:
(Highest only)

(NCPA Representative)

Date: _____

4/4/2018

DISTRIBUTION:

Original to Treasurer-Controller
Copy to Successful Highest Bidder



Bid on Sale of Surplus
Property/Bill of Sale

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DECLARATION:

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- **I have read and acknowledge the terms and conditions of sale noted hereon and on the reverse side hereof.**
- I hereby submit the following bid as described below:

NCPA Property ID No.	Description	Quantity	Net Unit Price Bid	Total Bid Amount
Item # 5	1999 Snokeel Manlift	1		\$ 5,125 ⁰⁰

Signature of Bidder/Buyer:

Date: 4-2-18

Location of Property:

NOTES:

- **NCPA reserves the right to accept or decline all or any part of the above bid.**
- **Terms and conditions of sale are stated on reverse side of this form and are effective for all sales, whether by sealed bid, auction or a negotiated sale.**

- Bid Accepted by:
(Highest only)

(NCPA Representative)

Date: 4/4/2018

DISTRIBUTION:

Original to Treasurer-Controller
Copy to Successful Highest Bidder



EMPLOYEES OF
NORTHERN CALIFORNIA POWER AGENCY
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- c) Participated in determining the method of sale,
- d) Acquired information not otherwise available to the general public regarding usage, condition, quality or value of the property.

Signed: _____

Organization: _____


NCPA

Original to Treasurer-Controller

3/7/2018

DECLARATION OF EXCESS

ITEM #	QTY	U/M*	DESCRIPTION (Including all applicable model & I.D. #'s)	CO ND**	ESTIMATED VALUE		NCPA PROP/STOCK OR PROJECT #	LOCATION
					UNIT	TOTAL		
1	5	ea.	Desk/table w/ drawers L 6 1/2' x H 2 1/2' x D 2'	S	\$0.00	\$0.00	n/a	DRC
2	1	ea.	Cubical Wall w/ 2 hanging cabinets L 7 1/2' x H 5 1/2' X D 2 1/2'	S	\$0.00	\$0.00	n/a	DRC
3	3	ea.	Table w/ keyboard tray L 4' x H 2 1/2' x D 2 1/2'	S	\$0.00	\$0.00	n/a	DRC
4	1	ea.	iPhone 5, can't be repaired (recycled)	R	\$18.00	\$18.00	n/a	HQ
5	1	ea.	iPhone 5, \$95 to repair (recycled)	R	\$100.00	\$100.00	n/a	HQ
6	1	ea.	iPhone 5, \$95 to repair (recycled)	R	\$75.00	\$75.00	n/a	HQ
7	1	ea.	iPhone 5, \$95 to repair (recycled)	R	\$72.00	\$72.00	n/a	HQ
8	2	ea.	iPhone 5, can't be repaired (recycled)	R	\$5.00	\$10.00	n/a GEO 1 LEC 1	HQ
9	2	ea.	iPhone 5, can't be repaired (recycled)	R	\$60.00	\$120.00	n/a Pwr Mgmt 1 IS 1	HQ
10	3	ea.	iPhone 5, can't be repaired (recycled)	R	\$9.36	\$28.08	n/a LEC 1 IS 2	HQ
11	1	ea.	iPhone 5, can't be repaired (recycled)	R	\$10.80	\$10.80	n/a Gen. Mgr	HQ
12	1	ea.	iPhone 5, can't be repaired (recycled)	R	\$110.00	\$110.00	n/a Hydro	HQ
13	1	ea.	iPhone 5, can't be repaired (recycled)	R	\$40.00	\$40.00	n/a IS	HQ

3/7/2018

ITEM #	QTY	U/M*	DESCRIPTION (Including all applicable model & I.D. #'s)	CO ND **	ESTIMATED VALUE		NCPA PROP/STOCK OR PROJECT #	LOCATION
					UNIT	TOTAL		
14	1	ea.	72W x 20D credenza	S	\$0.00	\$0.00	n/a	HQ
15	1	ea.	24W x 24D two drawer file	S	\$0.00	\$0.00	n/a	HQ
16	1	ea.	Upholstered chairs	S	\$0.00	\$0.00	n/a	HQ
17	2	ea.	Guest chairs	S	\$0.00	\$0.00	n/a	HQ
18	2	ea.	36D tables	S	\$0.00	\$0.00	n/a	HQ
19	2	ea.	30H x 36W x 15D bookcases	S	\$0.00	\$0.00	n/a	HQ
20	1	ea.	42H x 36W x 15D bookcase	S	\$0.00	\$0.00	n/a	HQ
21	1	ea.	96W x 120 D U-shaped desk set	S	\$0.00	\$0.00	n/a	HQ
22	1	ea.	Metal trash can	S	\$0.00	\$0.00	n/a	HQ
23	2	ea.	Wireless Verizon & AT&T aircards (recycle)	S	\$0.00	\$0.00	n/a	HQ
24	1	ea.	Blue Ant hands free device (recycle)	S	\$0.00	\$0.00	n/a	HQ
25	1	ea.	Motorola Droid (recycle)	S	\$0.00	\$0.00	n/a	HQ
26	6	ea.	72 H x 36 W bookcases	S	\$0.00	\$0.00	n/a	HQ
27	1	ea.	48W x 36 D table	S	\$0.00	\$0.00	n/a	HQ
28	1	ea.	60W x 30D desks	S	\$0.00	\$0.00	n/a	HQ
29	2	ea.	Corner pressboard workstations, laminate tops	S	\$0.00	\$0.00	n/a	HQ



3/7/2018

30	1	ea.	iPhone 5, can't be repaired (recycled)	R	\$45.00	\$45.00	n/a IS	HQ	
31	6	ea.	iPhone 5, can't be repaired (recycled)	R	\$22.00	\$132.00	n/a General Servs 1 SCALD 1 IS 1 GEO 2 Hydro 1	HQ	
32	1	ea.	iPhone 6, can't be repaired (recycled)	R	\$87.00	\$87.00	n/a L&R	HQ	
33	1	ea.	iPhone 6, can't be repaired (recycled)	R	\$10.00	\$10.00	n/a L&R	HQ	
34	2	ea.	Sharp AR-M550N B&W Copiers	R	<\$125>	<\$250>	n/a	HQ	

JUSTIFICATION FOR EXCESS/DISPOSAL:

Items 1-3 above were given to us by SureWest and they do not want them back. NCPA paid nothing for them and they are not listed on any inventory list. After contacting local secondary market vendors, there is no value. Goodwill, Deseret Industries and the Salvation Army are unwilling to take any of it. I will attempt to contact a scrap hauler and try to arrange not having to pay for disposal. Items 4&5 are no longer functioning, one can and one can't be repaired, however, Verizon Wireless is crediting \$100 for each. Items 6-8 are no longer needed and there is no NCPA location that needs them, so they can be donated to a women's shelter.

PREPARED BY	Knat Holben		
ORG CODE	450	RECOMMENDED DISPOSITION: _____ PUBLIC SALE _____ PRIVATE SALE (*See Note) X DISPOSAL - \$607.88 NET SCRAP VALUE	
APPROVED BY	* U/M = UNIT OF MEASURE ** CONDITION: EXCELLENT (E), GOOD (G), AVERAGE (A), POOR (P), SCRAP (S), RECYCLE (R)		
AUTHORIZATION TO PROCEED	(Assistant Gen. Mgr.) (General Manager)		

ORIGINAL TO TREASURER — CONTROLLER

ATTACHMENT I



651 Commerce Drive
Roseville, CA 95678

(916) 781-3636

www.ncpa.com

03/16/18

Items 1-3, 14-22 and 26-29 had no value and were donated to Family Promise of Sacramento a nonprofit organization committed to helping low-income families achieve lasting independence. Items 4-13 and 30-33 had recycle value and were recycled through Verizon Wireless's recycle program and the money was received via a credit to our account. Accounts Payable was provided a list of which department the phones came from and the credits were pushed back to those departments. Items 23-25 had no value and were recycled with SIMs recycling when the IS Department scheduled one of their recycling runs. Item 34 will be picked up by Smile in the very near future and recycled in their copier recycling program at a cost of \$250.

Knat Holben

A handwritten signature in blue ink, appearing to read "Knat Holben", with a long, sweeping underline.




Commission Staff Report

Date: April 18, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: Decommission Funding for the Geothermal Facilities

AGENDA CATEGORY: Consent

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

IMPACTED MEMBERS:

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

If other, please specify

RECOMMENDATION:

Approval of Resolution 18-26, stating that the collection of funds for the decommissioning of the geothermal facilities be modified based on the 2016 Decommission Study. The recommendation is to continue the current funding schedule (\$1,578,823 per fiscal year) based on the 2006 estimate through FY 2024. Starting in FY 2025, decommission funding will increase to a flat rate of \$2,417,081 per fiscal year through FY 2058.

BACKGROUND:

NCPA is currently reserving funds for the decommission of its Geothermal facilities. A 2006 study estimated that the decommission cost to be \$24.1 million (2006 dollars). Assuming an escalation rate of 2.5% and decommissioning to occur in FY 2034, the cost was projected to be approximately \$46 million (2034 dollars).

A new decommission study was conducted in 2016 by Black and Veatch. The new study reported a substantially higher estimate of \$59.3 million (2016 dollars). Assuming an escalation rate of 2.5%, and extending the decommission date to FY 2058, the cost was projected to be approximately \$100 million (2058 dollars).

The debt service for the geothermal facilities is approximately \$5 million/year through FY 2022, then drops to roughly \$3.5 million in FY 2024 and FY 2025 before it is retired. To minimize the fiscal impact to Members, it is proposed that decommission funds continue to be collected using the current schedule. Once the debt service is retired in FY 2025, decommission funding will be increased according to the 2016 study. This will increase the collection of decommission funding from \$1,578,823 to \$2,417,081 (difference of \$838,258) each fiscal year through FY 2058.

FISCAL IMPACT:

Acceptance of this recommendation will increase decommission funding from \$1,578,823 to \$2,417,081 (difference of \$838,258) each fiscal year starting in FY 2025 and continuing through FY 2058. Funding has been included in the current fiscal year budget and is available in the Generation Services, Geothermal account for this purpose. Cost allocation will be based on project participation percentages.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

The recommendation above was reviewed by the Facilities Committee on April 4, 2018, and was recommended for Commission approval on Consent Calendar.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. Howard", written in a cursive style.

RANDY S. HOWARD
General Manager

Attachments (1):

- Resolution

RESOLUTION 18-26

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING MODIFIED DECOMMISSION FUNDING SCHEDULE FOR THE NCPA
GEOTHERMAL PLANT**

(reference Staff Report #137:18)

WHEREAS, NCPA is required to collect funds for future decommissioning of its Geothermal facilities;
and

WHEREAS, a 2006 study estimated the decommissioning cost to be approximately \$46 million in the FY
2034; and

WHEREAS, the 2016 study estimated the decommissioning costs to be approximately \$100 million in FY
2058; and

WHEREAS, NCPA staff recommends decommission funding based on the 2006 study continue until the
geothermal facilities debt service is retired in FY 2024, at which time staff is recommending an increase in
decommission funding per the 2016 study, which will then continue at a flat rate through FY 2058; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency adopts
the recommendation to increase the collection of decommission funds for the NCPA geothermal facilities to a
flat rate of \$2,417,081 per fiscal year, starting in FY 2025 and continuing through FY 2058.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2018 by the following vote
on roll call:

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

BOB LINGL
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



Commission Staff Report

Date: April 18, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: Halliburton Energy Services, Inc. – Five Year Multi-Task General Services Agreement for well related services; Applicable to the following projects: All NCPA Facility Locations, Members, SCPPA, and SCPPA Members

AGENDA CATEGORY: Consent

FROM:	Ken Speer <i>KS</i>	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Combustion Turbines	

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

RECOMMENDATION:

Approval of Resolution 18-27 authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with Halliburton Energy Services, Inc. for well related services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$1,000,000 over five years for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority ("SCPPA"), or by SCPPA Members.

BACKGROUND:

Well related services are required from time to time related to project support at facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority ("SCPPA"), or by SCPPA Members.

FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed \$1,000,000 over five years to be used out of NCPA approved budgets as services are rendered. Purchase orders referencing the terms and conditions of the Agreement will be issued following NCPA procurement policies and procedures.

SELECTION PROCESS:

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA is currently working on additional agreements with similar service providers, including BJ Services, Schlumberger and TRB Oilfield Services. NCPA seeks bids from multiple qualified providers whenever services are needed. Bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

The recommendation above was reviewed by the Facilities Committee on April 4, 2018, and was recommended for Commission approval on Consent Calendar.

The recommendation above was reviewed by the Lodi Energy Center Project Participant Committee on April 9, 2018, and was approved.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. Howard", written over a horizontal line.

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution
- Multi-Task General Services Agreement with Halliburton Energy Services, Inc.

RESOLUTION 18-27

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK GENERAL SERVICES AGREEMENT WITH HALLIBURTON ENERGY SERVICES, INC.

(reference Staff Report #138:18)

WHEREAS, well related services are periodically required at the facilities owned and/or operated by Northern California Power Agency (NCPA), its Members, the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, Halliburton Energy Services, Inc. is a provider of these services; and

WHEREAS, NCPA seeks to enter into a Multi-Task General Services Agreement with Halliburton Energy Services, Inc. to provide such services as needed at all NCPA Generation facility locations, Member, SCPPA, and SCPPA Member facilities, in an amount not to exceed \$1,000,000 over five years; and

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

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

PASSED, ADOPTED and APPROVED this ____ day of _____, 2018 by the following vote on roll call:

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

BOB LINGL
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



**MULTI-TASK
GENERAL SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
HALLIBURTON ENERGY SERVICES, INC.**

This Multi-Task General Services Agreement ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Halliburton Energy Services, Inc., a Delaware corporation with its office located at 3000 N. Sam Houston Pkwy E., Houston, Texas ("Contractor") (together sometimes referred to as the "Parties") as of _____, 20__ ("Effective Date") in Roseville, California.

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

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

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

Section 2. COMPENSATION. Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** ONE MILLION dollars (\$1,000,000.00) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement; provided however, notwithstanding such limit, Contractor shall be entitled to compensation for all Work satisfactorily completed pursuant to any Purchase Order(s) and the terms of this Agreement.

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

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

Invoices shall be sent to:

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

2.2 Monthly Payment. Agency shall make monthly payments, based on invoices received, for Work satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have twenty (20) days from the date of an invoice that complies with all of the requirements above to pay Contractor.

2.3 Payment of Taxes. Contractor is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement. Contractor's prices are exclusive of federal, state or municipal taxes, if any, which may be imposed on the Contractor's sale or use of any goods or

services performed. Agency agrees to pay such taxes in addition to the prices in Contractor's price list.

2.4 Authorization to Perform Work. The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

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

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

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

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

4.2 Commercial General and Automobile Liability Insurance.

4.2.1 Commercial General Insurance. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including sudden and accidental pollution, products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a limit of \$2,000,000 per occurrence/\$4,000,000 aggregate.

4.2.2 Automobile Liability. Contractor shall maintain automobile liability insurance for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Contractor, on or off Agency premises. The policy shall provide a limit of \$1,000,000 per each accident. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.

- 4.2.3 General Liability/Umbrella Insurance.** The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.
- 4.3 Professional Liability Insurance.** Not Applicable.
- 4.4 Pollution Insurance.** Addressed in Section 4.2.1.
- 4.5 All Policies Requirements.**
- 4.5.1 Verification of coverage.** Prior to beginning any work under this Agreement, Contractor shall provide Agency with a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein. To the extent of the liabilities assumed and indemnities given by Contractor under this Agreement, Agency shall be added by Contractor as an "additional insured" to the insurance required by section 4.2. Such coverage shall be primary, and shall provide coverage without contribution by Agency's insurance or self-insurance.
- 4.5.2 Notice of Reduction in or Cancellation of Coverage.** Contractor shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
- 4.5.3 Reserved.**
- 4.5.4 Additional Certificates and Endorsements.** If Contractor performs Work for Agency members, SCPPA and/or SCPPA members pursuant to this Agreement, Contractor shall provide the certificates of insurance and/or policy endorsements, as referenced in Section 4.5.1, naming the specific Agency member, SCPPA and/or SCPPA member for which the Work is to be performed as an additional insured to the extent of the liabilities assumed and indemnities given by Contractor under this Agreement.
- 4.6 Waiver of Subrogation.** To the extent of the liabilities assumed by Contractor under this Agreement, Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Contractor, its employees, agents and subcontractors.
- 4.7 Contractor's Obligation.** Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Work are operated, provided or otherwise utilized in a manner that ensures they are

and remain covered by the policies referenced in Section 4 during this Agreement. Contractor shall also ensure that all workers involved in the provision of Work are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

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

5.2 Definitions.

5.2.1 "Agency Group" shall mean Agency, its contractors of any tier (other than Contractor) and/or its/their officials, commissioners, directors, officers, employees, agents, consultants and volunteers, and to the extent Agency members, SCPPA, or SCPPA members use this Agreement, Agency Group includes those entities

5.2.2 "Contractor Group" shall mean Contractor, its parent, subsidiary and affiliated companies, its subcontractors of any tier, and/or its/their directors, officers, employees, agents and consultants.

5.2.3 "Liabilities" shall mean any and all claims, judgments, liabilities, settlements, losses, damages, costs and expenses, including but not limited to, those related to attorney's fees, property damage or loss (whether the property is owned, operated or hired) and personal injury or death.

5.3 Indemnities.

5.3.1 Contractor shall to the fullest extent allowed by law, with respect to all services performed in connection with this Agreement, indemnify, defend and hold harmless the Agency Group from and against any and all Liabilities arising from any injury, illness, death or damage to property (whether owned operated or hired) of any member of the Contractor Group, even if due in whole or in part to the fault, breach of contract or statute, or negligence of any member of Agency Group, provided that such obligations to defend, hold harmless and indemnify the Agency Group shall not apply to the extent that such Liabilities are caused by the sole or gross negligence or willful misconduct of the Agency Group.

5.3.2 Agency shall to the fullest extent allowed by law, with respect to all services performed in connection with this Agreement, indemnify, defend and hold harmless the Contractor Group from and against any and all Liabilities arising from any injury, illness, death or damage to property (whether owned operated or hired) of any member of the Agency Group, even if due in whole or in part to the fault, breach of contract or statute, or negligence of any member of Contractor Group, provided that such obligations to defend, hold harmless and indemnify the Contractor Group shall not apply to the extent

that such Liabilities are caused by the sole or gross negligence or willful misconduct of the Contractor Group.

5.3.3 Each party shall be responsible for and shall indemnify the other party from and against any and all Liabilities incurred by, in favor of or on behalf of a third party but only to the extent such Liabilities are caused by the fault, breach of contract or statute, or negligence of the indemnifying party or any member of the indemnifying party's Group. For the avoidance of doubt, the term "third party" shall exclude any member of Contractor Group or Agency Group.

5.3.4 Notwithstanding any provision in this Agreement to the contrary, Agency shall be responsible and liable for and shall defend, indemnify, and hold harmless Contractor Group from and against any and all Liabilities, regardless of cause or fault, arising from:

- a) any damage or loss to the well, hole, casing, reservoir or productive formation and any other surface, subsurface, or subsea loss or damage, and
- b) the use of radioactive material (including any pollution, contamination and associated clean up), and
- c) any blowout, fire, explosion, cratering or other uncontrolled loss or flow of oil, gas, water or well fluids, and
- d) removal of debris and cost of regaining control of any wild well, and e) any pollution and contamination (including clean up) originating below the surface or resulting from any seepage, blowout, fire, explosion, cratering or other uncontrolled loss or flow of oil, gas, water or well fluids;

Except that this subsection shall not apply to the extent that any of the foregoing is caused by the gross negligence or willful misconduct of Contractor Group.

5.3.5 Contractor shall be responsible for and indemnify Agency Group for any pollution or contamination originating at or above the surface of the land from any substance in the care, custody, and control of Contractor Group, which was originally brought onto the work site by Contractor Group.

5.3.6 Contractor shall place any Hazardous Materials in appropriate storage containers so that Agency can arrange for proper transportation and disposal offsite. Agency agrees that it will, at its sole expense and risk, store, manifest, transport and dispose of any spent or used chemicals or hazardous waste as defined by the Resource Conservation and Recovery Act (42 U.S.C. Section 6901 *et seq.*), as amended from time to time and the regulations promulgated there under, ("Hazardous Materials") resulting from or incident to the job and assumes all responsibilities and obligations associated in any manner with such Hazardous Chemicals. Furthermore, Contractor shall not be responsible for the signing of manifests or for the storage, transportation or disposal of such Hazardous Materials. The cost and responsibility for storage, transportation and disposal of such Hazardous Materials shall be the responsibility of Agency. Agency shall fully protect and indemnify Contractor Group from any liability incurred by Contractor, under statute, regulation, or otherwise, arising from Agency's failure to properly store, manifest, transport and/or dispose of such Hazardous Materials.

5.3.7 UNLESS SPECIFICALLY STATED TO THE CONTRARY, THE RELEASE, DEFENSE INDEMNITY AND HOLD HARMLESS OBLIGATIONS IN SECTIONS 5.3.1 THROUGH 5.3.5 SHALL APPLY EVEN IF THE LIABILITY OR CLAIMS ARE CONTRIBUTED TO OR CAUSED BY THE SOLE, JOINT, OR CONCURRENT ACTIVE OR PASSIVE NEGLIGENCE, FAULT OR STRICT LIABILITY OF THE INDEMNITEE, INCLUDING BUT NOT LIMITED TO, THE AIRWORTHINESS OF ANY AIRCRAFT, OR PRODUCT LIABILITY, WHETHER IN THE DESIGN, MANUFACTURE, MAINTENANCE, OR MARKETING THEREOF, OR FROM A FAILURE TO WARN OF SUCH DEFECT, OR ANY DEFECT IN DATA, PRODUCTS, SUPPLIES, MATERIALS, OR EQUIPMENT. BOTH PARTIES ACKNOWLEDGE THAT THIS STATEMENT IS CONSPICUOUS AND AFFORDS FAIR AND ADEQUATE NOTICE.

5.3.8 Neither Party shall be liable to the other for any indirect, special, punitive, exemplary or consequential damages including, but not limited to, damages for lost production, lost revenue, lost product, lost profits, or lost business or business interruptions, from any cause whatsoever, including but not limited to the negligence or breach of duty, statutory or otherwise, of either Party, and each Party hereby releases the other in this regard.

5.3.9 The indemnities provided for in this Section 5.3 shall be limited to the extent necessary for compliance with laws or regulations applicable to the performance of the Services hereunder, and to the extent any such laws or regulations are in variance with the indemnities provided in this Agreement, such indemnity shall be deemed to be amended so as to comply with such laws or regulations.

5.4 **Transfer of Title.** If Contractor's Work involves its transporting hazardous materials, Contractor shall be deemed to be in exclusive possession and control of such materials and shall be responsible for any damages or injury caused thereby, including without limitation any spills, leaks, discharges or releases of such materials, until Agency accepts delivery at its Site. For the purposes of this Agreement, such acceptance shall occur when Contractor or its agents complete transfer of such materials into appropriate containers, machinery, storage tanks or other storage apparatus identified by NCPA. For clarification, it is understood by the Parties that Contractor's only transportation of hazardous materials will be the transport of Contractor's materials to the work site prior to commencement of the Work. In the event a spill, leak, discharge or release, prior to the delivery of such Contractor materials to the work site, requires notification to a federal, state or local regulatory agency, Contractor shall be responsible for all such notifications. Should Contractor be required to remedy or remove such materials as a result of a leak, spill, release or discharge of such materials into the environment at Agency's Site or elsewhere, and where such leak, spill, release or discharge of such materials occurs prior to the delivery of such Contractor materials to the work site, Contractor agrees to remediate, remove or cleanup Agency's Site to a level sufficient to receive a "No Further Action Required" or "Closure Letter" from the appropriate regulatory authority.

Section 6. STATUS OF CONTRACTOR.

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

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

Contractor shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that is due to Contractor's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

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

- 6.2 Contractor Not Agent.** Contractor shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- 6.3 Assignment and Subcontracting.** This Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Contractor. Contractor

may not assign this Agreement or any interest therein without the prior written approval of the Agency. Contractor shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Contractor shall supervise all work subcontracted by Contractor in performing the Work and shall be responsible for all work performed by a subcontractor as if Contractor itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Contractor from any of its obligations under this Agreement with respect to the Work and Contractor is obligated to ensure that any and all subcontractors performing any Work shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.

- 6.4 **Certification as to California Energy Commission.** If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit C.
- 6.5 **Certification as to California Energy Commission Regarding Hazardous Materials Transport Vendors.** If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit D.
- 6.6 **Maintenance Labor Agreement.** Not applicable.

Section 7. LEGAL REQUIREMENTS.

- 7.1 **Governing Law.** The laws of the State of California shall govern this Agreement.
- 7.2 **Compliance with Applicable Laws.** Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- 7.3 **Licenses and Permits.** Contractor represents and warrants to Agency that Contractor and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.
- 7.4 **Monitoring by DIR.** The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- 7.5 **Registration with DIR.** During the term of this Agreement, Contractor warrants that it is registered with the Department of Industrial Relations and qualified to perform Work consistent with Labor Code section 1725.5.
- 7.6 **Prevailing Wage Rates.** In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less

than the general prevailing rate of per diem wages for holiday and overtime work as provided in the California Labor Code must be paid to all workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed; the Agency has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the project; and copies of the prevailing rate of per diem wages are on file at the Agency and will be made available on request. Throughout the performance of the Work, Contractor must comply with all applicable laws and regulations that apply to wages earned in performance of the Work. Contractor assumes all responsibility for such payments and shall defend, indemnify and hold the Agency harmless from any and all claims made by the State of California, the Department of Industrial Relations, any subcontractor, any worker or any other third party with regard thereto.

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

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

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

Section 8. TERMINATION AND MODIFICATION.

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

In the event of termination, Contractor shall be entitled to compensation for Work satisfactorily completed as of the effective date of termination; Agency, however,

may condition payment of such compensation upon Contractor delivering to Agency any or all records or documents (as referenced in Section 9.1 hereof).

- 8.2 Amendments.** The Parties may amend this Agreement only by a writing signed by both of the Parties.
- 8.3 Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.
- 8.4 Options upon Breach by Contractor.** If Contractor materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
- 8.4.1** Immediately terminate the Agreement;
 - 8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product in its possession or required to be delivered by Contractor in order to complete the applicable scope of work, excluding the data specified in Section 9.1;
 - 8.4.3** Retain a different Contractor to complete the Work not finished by Contractor; and/or
 - 8.4.4** Seek the remedies available to Agency under Section 11.

Section 9. KEEPING AND STATUS OF RECORDS.

- 9.1 Records Created as Part of Contractor's Performance.** Except for data or information related to the performance of Contractor's personnel, materials and/or equipment, all reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents, which are the property of Agency. If requested by Agency, Contractor shall provide to Agency any data or information regarding the performance of the materials used by Contractor in the performance of the Work and injected and/or left on site.
- 9.2 Contractor's Books and Records.** Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.

9.3 Inspection and Audit of Records. Any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency to the extent necessary for the Agency to verify the accuracy amounts charged by Contractor and Contractor's compliance with the requirements of this Agreement and comply with applicable laws. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement for the verification the accuracy amounts charged by Contractor and Contractor's compliance with the requirements of this Agreement and comply with applicable law.

9.4 Confidential Information and Disclosure.

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

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

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

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

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

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

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

Section 10. PROJECT SITE.

10.1 **Operations at the Project Site.** Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency; if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4; and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials (subject to Section 5.3.4 and 5.3.5) and rubbish, stemming from or relating to Contractor's Work.

10.2 **Contractor's Equipment, Tools, Supplies and Materials.** Contractor shall be solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work, whether owned, leased or rented. Neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, will be responsible for any such equipment, supplies or materials which may be lost, stolen or damaged or for any additional rental charges for such. Contractor's equipment, tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to

have been abandoned by the Contractor. Any transportation furnished by Agency or, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall be solely as an accommodation and neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall have liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be in good condition.

- 10.3 Use of Agency Equipment.** Contractor shall assume the risk and is solely responsible for its use of any equipment owned and property provided by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, for the performance of Work.

Section 11. WARRANTY.

- 11.1** Contractor warrants that all Work (including but not limited to all equipment and materials supplied in connection therewith) shall be free from defects in design and workmanship, and that Contractor shall perform all Work in accordance with all applicable engineering, construction and other codes and standards, in accordance with prudent electrical utility standards, and in accordance with the terms of this Agreement and the Purchase Order applicable to such Work, all with the degree of high professional skill normally exercised by or expected from recognized professional firms engaged in the practice of supplying services of a nature similar to the Work in question. Contractor further warrants that, in addition to furnishing all tools, equipment and supplies customarily required for performance of work, Contractor shall furnish personnel with the training, experience and physical ability, as well as adequate supervision, required to perform the Work in accordance with the preceding standards and the other requirements of this Agreement and the Purchase Orders. Agency shall have the right to require, and Contractor shall be obligated at its own expense to perform, within thirty (30) days after Contractor leaves the work site all further services which may be required to correct any deficiencies which result from Contractor's failure to perform any Work in accordance with the standards required by this Agreement or the applicable Purchase Order, provided that Contractor's liability shall not exceed an amount equal to the cost of the defective Work. Moreover, if, during the term of this Agreement (or during the one (1) year period following the term hereof), any goods or other materials provided by Contractor under this Agreement fail due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable notice from Agency within such one (1) year period, replace or repair (excluding downhole retrieval and installation unless due to Contractor's gross negligence in performance of the Work) the same to remedy such defects or breach. Unless otherwise expressly permitted by the applicable Purchase Order, all materials and supplies to be used by Contractor in the performance of the Work shall be new and conform to specifications.

11.2 Notwithstanding the foregoing, because of the uncertainty of variable well conditions and the necessity of Contractor relying on facts and supporting service(s) furnished by Agency and others, Contractor is unable to guarantee:

11.2.1 The effectiveness of the equipment and materials, nonetheless, Contractor does warrant that its equipment will comply with the stated specifications i.e. a pump is able to pump at the pump's rated capacity,

11.2.2 The accomplishment of Agency's intended purposes or results for which the services and equipment were sold and/or used,

11.2.3 The accuracy of any log or chart interpretation, research analysis, job recommendation or other data or service furnished by Contractor to Agency under the terms hereof, or

11.2.4 The accuracy of data transmitted by electronic means, and Contractor shall not be responsible for accidental or intentional interception of such data by others. Should data be corrupted in transmission for whatever reason, Contractor shall provide data to Agency by another means.

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

11.4 THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE, WHICH EXTEND BEYOND THOSE STATED IN SECTION 11.1.

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

12.1 Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.

12.2 Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.

- 12.3** Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
- 12.4** Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.
- 12.5** Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of a written accident report, and coordinate with Agency if further investigation is requested.
- 12.6** Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.
- 12.7** Not Used.
- 12.8** Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.
- 12.9** Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials shall include diesel fuel used for trucks owned or leased by the Contractor.
- 12.10** If Contractor is providing Work to an Agency Member, SCPPA or SCPPA member (collectively "Member" solely for the purpose of this section) pursuant to Section 1.4 hereof, then that Member shall have the same rights as the Agency under Sections 12.1, 12.2, 12.4, 12.5, and 12.6 hereof.

Section 13. MISCELLANEOUS PROVISIONS.

- 13.1 Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in

addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

- 13.2 Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- 13.3 Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- 13.4 No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- 13.5 Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- 13.6 Conflict of Interest.** Contractor may not make campaign contributions or make gifts to elected officials or employees of Agency and if this Agreement is used by Agency members, SCPA or SCPA members their elected officials or employees in violation of in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*
- Contractor shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*
- 13.7 Contract Administrator.** This Agreement shall be administered by Ken Speer, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- 13.8 Notices.** Any written notice to Contractor shall be sent to:

Halliburton Energy Services, Inc.
Attention: Michael Noel
34722 7th Standard Road
Bakersfield, CA 93314

Any written notice to Agency shall be sent to:

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

With a copy to:

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

13.9 Not Used.

13.10 **Integration; Incorporation.** This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.

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

- 13.11.1** Each party shall designate a senior management or executive level representative to negotiate any dispute;
- 13.11.2** The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
- 13.11.3** If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
- 13.11.4** The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
- 13.11.5** The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
- 13.11.6** The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative

remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*

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

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

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

13.15 No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

SIGNATURES ON FOLLOWING PAGE

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

NORTHERN CALIFORNIA POWER AGENCY

HALLIBURTON ENERGY SERVICES, INC.

Date _____

Date _____

RANDY S. HOWARD,
General Manager

ISAAC PATERNTI,
Sales Manager

Attest:

Assistant Secretary of the Commission

Approved as to Form:

General Counsel

EXHIBIT A

SCOPE OF WORK

Halliburton ("Contractor") shall provide injection well related services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by Agency, its Members, Southern California Public Power Authority (SCPPA) or SCPPA members.

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

- Acidizing Services
- Cementing Services (Plug Backs, Cement Casing, PTA etc)
- Coil Tubing Service
- Miscellaneous Pumping Services (Nitrogen, Well Kills, etc)
- Tools and Completion Services (CIBP, Packers, Retainers etc)
- Sperry Directional Drilling Services (Directional Motors, Drill Bits etc)
- Wireline Logging and Perforating Services (GR/Neut Log, CBL, Casing Inspection logs, Perforating Guns etc)

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

Work performed varies and will be bid at the time services are needed.

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

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

EXHIBIT C

CERTIFICATION

Affidavit of Compliance for Contractors

I,

(Name of person signing affidavit)(Title)

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

HALLIBURTON ENERGY SERVICES, INC.

(Company name)

for contract work at:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____ day of _____, 20 _____.

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

EXHIBIT D

CERTIFICATION

Affidavit of Compliance for Hazardous Materials Transport Vendors

I, _____,

(Name of person signing affidavit)(Title)

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

HALLIBURTON ENERGY SERVICES, INC.

(Company name)

for hazardous materials delivery to:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____ day of _____, 20 ____.

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



Commission Staff Report

Date April 17, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: Leidos Engineering, LLC – Five Year Multi-Task Professional Services Agreement for Engineering Services; Applicable to the following projects: All NCPA Facility Locations, Members, SCPPA, and SCPPA Members

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

Approval of Resolution 18-28 authorizing the General Manager or his designee to enter into a Five Year Multi-Task Professional Services Agreement with Leidos Engineering, LLC for transmission and distribution design and engineering services, with any non-substantial changes recommended and approved by NCPA General Counsel, which shall not exceed \$1,000,000 over five years, for use at all facilities owned and/or operated by the Northern California Power Agency (NCPA), its Members, the Southern California Public Power Authority (“SCPPA”), and SCPPA Members.

BACKGROUND:

Transmission and distribution design and engineering services, including grid planning, power delivery, and environmental and asset management services, are required from time to time related to project support and plant operations at facilities owned and/or operated by NCPA, its Members, SCPPA, or by SCPPA Members. Leidos Engineering, LLC is a provider of these services.

FISCAL IMPACT:

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA currently has in place other enabling agreements for similar services with Burns & McDonnell and Power Engineers, Inc. NCPA seeks bids from as many qualified providers as possible whenever services are needed. Bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

The recommendation above was reviewed by the Facilities Committee on April 4, 2018, and was recommended for Commission approval on Consent Calendar.

The recommendation above was reviewed by the Lodi Energy Center Project Participant Committee on April 9, 2018, and was approved.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. S. Howard", written in a cursive style.

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution
- Multi-Task Professional Services Agreement with Leidos Engineering, LLC

RESOLUTION 18-28

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING A MULTI-TASK PROFESSIONAL SERVICES AGREEMENT WITH LEIDOS
ENGINEERING, LLC**

(reference Staff Report #139:18)

WHEREAS, professional engineering services, including transmission and distribution design, grid planning, power delivery, and environmental and asset management services, are periodically required at facilities owned and/or operated by the Northern California Power Agency (NCPA), its Members, the Southern California Public Power Authority ("SCPPA"), and SCPPA Members; and

WHEREAS, Leidos Engineering, LLC is a provider of these services; and

WHEREAS, NCPA seeks to enter into a Multi-Task Professional Services Agreement with Leidos Engineering, LLC to provide such services as needed at all NCPA, Member, SCPPA, and SCPPA Member facilities in an amount not to exceed \$1,000,000 over five years; and

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

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

PASSED, ADOPTED and APPROVED this ____ day of _____, 2018 by the following vote on roll call:

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

BOB LINGL
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



MULTI-TASK PROFESSIONAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND LEIDOS ENGINEERING, LLC

This Professional Services Agreement ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Leidos Engineering, LLC, a Delaware limited liability company with its principal office located at 11951 Freedom Drive, Reston, VA 20190 ("Consultant") (together sometimes referred to as the "Parties") as of _____, 20__ ("Effective Date") in Roseville, California.

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

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

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

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

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

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

Invoices shall be sent to:

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

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

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

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

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

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

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

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

4.2 Commercial General and Automobile Liability Insurance.

4.2.1 Commercial General Insurance. Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, for bodily injury, death, personal injury and property damage caused by the operations of Consultant. The policy shall provide a minimum limit of \$1,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, and Consultant shall be solely responsible for any self-insured retention or deductible.

4.2.2 Automobile Liability. Consultant shall maintain automobile liability insurance form CA 0001 (current edition) or equivalent for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Consultant, on or off Agency premises. The policy shall provide a minimum limit of \$1,000,000 per each accident, and Consultant shall be solely responsible for any self-insured retention or deductible. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.

4.2.3 General Liability/Umbrella Insurance. The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated. Consultant shall maintain umbrella insurance in an amount not less than ten million dollars (\$10,000,000).

4.3 Professional Liability Insurance. Consultant shall maintain professional liability insurance appropriate to Consultant's profession performing work in connection with this Agreement in an amount not less than one million dollars (\$1,000,000.00) and two million dollars (\$2,000,000) aggregate covering the Consultant's errors and omissions. Consultant shall be solely responsible for any self-insured retention or deductible. Such insurance shall be on a "claims-made" basis, subject to the following conditions: (1) the retroactive date of the policy shall be on or before the Effective Date of this Agreement; (2) the policy shall be maintained for at least five (5) years after completion of the Services and, if requested by Agency, evidence of coverage shall be provided during this period; and (3) if, within five (5) years of completion of the Services, coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Agreement, Consultant shall purchase "extended reporting" coverage for a minimum of five (5) years after completion of the Services and, if requested by Agency, provide evidence of coverage during this period.

4.4 All Policies Requirements.

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

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

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

4.5 Waiver of Subrogation. Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of

any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. The Workers' Compensation policy shall include a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.

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

Section 5. INDEMNIFICATION, CONSULTANT'S RESPONSIBILITIES, AND LIMITATION OF LIABILITY.

- 5.1 Effect of Insurance.** Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.
- 5.2 Scope.** Consultant shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against any and all claims that arise out of, pertain to or relate to the negligence, recklessness or willful misconduct of the Consultant in its performance of Services under this Agreement. Consultant shall bear all losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly ("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the sole negligence, active negligence, or willful misconduct of the Agency.
- 5.3 Limitation of Liability.** No employee of Consultant shall have individual liability to the Agency. To the extent permitted by law, the total liability of Consultant, its officers, directors, shareholders, employees and subconsultants for any and all claims arising out of a Purchase Order, including attorneys' fees, and whether caused by negligence, errors, omissions, strict liability, breach of contract or contribution, or indemnity claims based on third party claims, shall not exceed in the aggregate, the revenue actually received by Consultant under this Agreement, under the specific Purchase Order at issue, or the insurance limits whichever is greater. In no event and under no circumstances shall either party be liable to the other party for any principal, interest, loss of anticipated revenues,

earnings, profits, increased expense of operation or construction, loss by reason of shutdown or non-operation due to late completion or otherwise or for any other economic, consequential, indirect or special damages.

Section 6. STATUS OF CONSULTANT.

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

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

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

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

- 6.2 Consultant Not Agent.** Except as Agency may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of Agency in any

capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.

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

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

Section 7. LEGAL REQUIREMENTS.

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

Section 8. TERMINATION AND MODIFICATION.

- 8.1 Termination.** Agency may cancel this Agreement at any time and without cause upon thirty (30) days prior written notice to Consultant.

In the event of termination, Consultant shall be entitled to compensation for Services satisfactorily completed as of the effective date of termination; Agency,

however, may condition payment of such compensation upon Consultant delivering to Agency any or all records or documents, as referenced in Section 9.1 hereof.

- 8.2 Amendments.** The Parties may amend this Agreement only by a writing signed by all the Parties.
- 8.3 Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Consultant shall survive the termination of this Agreement.
- 8.4 Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
- 8.4.1** Immediately terminate the Agreement;
 - 8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement;
 - 8.4.3** Retain a different consultant to complete the Services not finished by Consultant; and/or
 - 8.4.4** Charge Consultant the difference between the costs to complete the Services that are unfinished at the time of breach and the amount that Agency would have paid Consultant pursuant hereto if Consultant had completed the Services, if Consultant is unable to cure the incomplete or non-confirming Services within thirty (30) days of written notice from Agency specifying the non-conformities.

Section 9. KEEPING AND STATUS OF RECORDS.

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

for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.

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

9.4 Confidential Information and Disclosure.

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

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

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

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

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

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

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

Section 10. MISCELLANEOUS PROVISIONS.

- 10.1 Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- 10.2 Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- 10.3 Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- 10.4 No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

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

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

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

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

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

Keith Deaton
Leidos Engineering, LLC Corporate Headquarters
11951 Freedom Drive
Reston, VA 20190

Any written notice to Agency shall be sent to:

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

With a copy to:

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

10.9 Professional Seal. Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.

10.10 Integration; Incorporation. This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.

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

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

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

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

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

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

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

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

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

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

10.15 No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Consultant provide services to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this Section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Services relating to such Member.

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

NORTHERN CALIFORNIA POWER AGENCY

LEIDOS ENGINEERING, LLC

Date _____

Date _____

RANDY HOWARD, General Manager

**KEITH DEATON, VP Power Delivery
Services Division Manager**

Attest:

Assistant Secretary of the Commission

Approved as to Form:

General Counsel

EXHIBIT A

SCOPE OF SERVICES

At the request of Agency, Leidos Engineering, LLC ("Consultant") shall provide the following services to the Northern California Power Agency, its Members, SCPPA, and SCPPA Members, including but not limited to:

- Transmission and Distribution design and engineering services
- Grid Planning services
- Power Delivery services
- Environmental services
- Asset Management services
- Smart Grid services

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

Billing Class	Hourly Rate	Typical Project Roles
3	\$38.00	Clerical, Administration, Junior Engineers, and Technicians
4	\$51.00	
5	\$64.00	
6	\$77.00	
7	\$90.00	Staff Engineers, Consultants, and Technicians
8	\$102.00	
9	\$115.00	
10	\$128.00	
11	\$141.00	Senior Engineers, Consultants and Technicians, Managers, and Principals
12	\$154.00	
13	\$166.00	
14	\$179.00	
15	\$192.00	Executive Engineers and Consultants, Senior Project Managers, and Principals
16	\$205.00	
17	\$218.00	
18	\$230.00	
19	\$243.00	Executive Engineers and Consultants, Senior Project Managers, and Senior Principals
20	\$256.00	
21	\$269.00	
22	\$282.00	
23	\$294.00	
24	\$307.00	
25	\$320.00	
26	\$333.00	
27	\$346.00	
28	\$358.00	
29	\$371.00	
30	\$384.00	
31	\$397.00	

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

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

EXHIBIT C
CERTIFICATION

Affidavit of Compliance for Contractors

I, _____

(Name of person signing affidavit)(Title)

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

LEIDOS ENGINEERING, INC. (Company name)

for contract work at:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____ day of _____, 20__.

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



16

Commission Staff Report

Date: April 17, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: TNG Energy Services – Five Year Multi-Task General Services Agreement to service wellhead valves and other associated equipment as part of NCPA's preventive maintenance and continuing operations; Applicable to the following projects: Geysers Geothermal Facilities only.

AGENDA CATEGORY: Consent

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

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

RECOMMENDATION:

Approval of Resolution 18-30 authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with TNG Energy Services for labor, materials and tools to service wellhead valves and other associated equipment as part of NCPA's preventive maintenance and continuing operations, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$750,000 over five years, for use at the Geysers Geothermal Facilities.

BACKGROUND:

Servicing of wellhead valves and other associated equipment is required from time to time as part of NCPA's preventive maintenance and continuing operations at the Geysers Geothermal Facilities.

FISCAL IMPACT:

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA currently has in place other agreements for similar services with Northern Industrial Construction and Danick Mechanical, Inc. NCPA seeks bids from as many qualified providers as possible whenever services are needed. Bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

The recommendation above was reviewed by the Facilities Committee on April 4, 2018, and was recommended for Commission approval on Consent Calendar.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments: (2)

- Resolution
- Multi-Task General Services Agreement with TNG Energy Services

RESOLUTION 18-30

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
APPROVING A MULTI-TASK GENERAL SERVICES AGREEMENT WITH TNG ENERGY
SERVICES**

(reference Staff Report #141:18)

WHEREAS, servicing of wellhead valves and other associated equipment is periodically required at the Northern California Power Agency (NCPA) Geysers Geothermal Facilities; and

WHEREAS, TNG Energy Services is a provider of these services; and

WHEREAS, NCPA seeks to enter into a Multi-Task General Services Agreement with TNG Energy Services to provide such services as needed at the NCPA Geysers Geothermal Facilities in an amount not to exceed \$750,000 over five years; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter a Multi-Task General Services Agreement with TNG Energy Services with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$750,000 over five years for servicing of wellhead valves and other associated equipment, for use at the NCPA Geysers Geothermal Facilities.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2018 by the following vote on roll call:

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

BOB LINGL
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



**MULTI-TASK
GENERAL SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
TNG ENERGY SERVICES**

This Multi-Task General Services Agreement ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and TNG Energy Services, a corporation with its office located at 3505 Standard Street, Bakersfield, CA 93308 ("Contractor") (together sometimes referred to as the "Parties") as of _____, 2018 ("Effective Date") in Roseville, California.

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

- 1.1 Term of Agreement.** The term of this Agreement shall begin on the Effective Date and shall end when Contractor completes the Work, when the contractor receives the maximum compensation referenced in Section 2 or five (5) years from the date this Agreement was signed by Agency, whichever occurs first.
- 1.2 Standard of Performance.** Contractor shall perform the Work in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged and for which Contractor is providing the Work. Contractor represents that it is licensed, qualified and experienced to provide the Work set forth herein.
- 1.3 Assignment of Personnel.** Contractor shall assign only competent personnel to perform the Work. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Contractor shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- 1.4 Work Provided.** Work provided under this Agreement by Contractor may include Work directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement.
- 1.5 Request for Work to be Performed.** At such time that Agency determines to have Contractor perform Work under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific Work to be performed ("Requested Work"), may include a not-to-exceed cap on monetary cap on Requested Work and all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Work shall be completed. Scheduling of services with Contractor must be done at least three weeks in advance. Contractor shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Contractor chooses not to perform the Requested Work. If Contractor agrees to perform the Requested Work, begins to perform the Requested Work, or does not respond within the seven day period specified, then Contractor will have

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

Section 2. COMPENSATION. Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** SEVEN HUNDRED FIFTY THOUSAND dollars (\$750,000) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

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

- The beginning and ending dates of the billing period;
- Work performed;
- The Purchase Order number authorizing the Requested Work;
- At Agency's option, the total number of hours of work performed under the Agreement by Contractor and each employee, agent, and subcontractor of Contractor performing work hereunder.

Invoices shall be sent to:

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

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

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

2.4 Authorization to Perform Work. The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

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

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

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

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

4.2 Commercial General and Automobile Liability Insurance.

4.2.1 Commercial General Insurance. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a minimum limit of \$1,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.

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

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

4.3 Professional Liability Insurance. Not Applicable

4.4 Pollution Insurance. Not Applicable

4.5 All Policies Requirements.

4.5.1 Verification of coverage. Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2 and in Section 4.4, if applicable, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

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

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

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

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

Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

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

5.2 Scope. Contractor shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency, and its officials, commissioners, officers, employees, agents and volunteers from and against all losses, liabilities, claims, demands, suits, actions, damages, expenses, penalties, fines, costs (including without limitation costs and fees of litigation), judgments and causes of action of every nature arising out of or in connection with any acts or omissions

by Contractor, its officers, officials, agents, and employees, except as caused by the sole or gross negligence of Agency. Notwithstanding, should this Agreement be construed as a construction agreement under Civil Code section 2783, then the exception referenced above shall also be for the active negligence of Agency.

Section 6. STATUS OF CONTRACTOR.

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

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

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

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

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

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

Section 7. LEGAL REQUIREMENTS.

- 7.1 Governing Law.** The laws of the State of California shall govern this Agreement.
- 7.2 Compliance with Applicable Laws.** Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- 7.3 Licenses and Permits.** Contractor represents and warrants to Agency that Contractor and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.
- 7.4 Monitoring by DIR.** The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- 7.5 Registration with DIR.** During the term of this Agreement, Contractor warrants that it is registered with the Department of Industrial Relations and qualified to perform Work consistent with Labor Code section 1725.5.
- 7.6 Prevailing Wage Rates.** In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work as provided in the California Labor Code must be paid to all workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed; the Agency has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which

the Work is to be performed for each craft, classification or type of worker needed to perform the project; and copies of the prevailing rate of per diem wages are on file at the Agency and will be made available on request. Throughout the performance of the Work, Contractor must comply with all applicable laws and regulations that apply to wages earned in performance of the Work. Contractor assumes all responsibility for such payments and shall defend, indemnify and hold the Agency harmless from any and all claims made by the State of California, the Department of Industrial Relations, any subcontractor, any worker or any other third party with regard thereto.

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

Contractor shall be required to submit to the Agency during the contract period, copies of Public Works payroll reporting information per California Department of Industrial Relations, Form A- 1-131 (New 2-80) concerning work performed under this Agreement. Contractor shall provide payroll records if requested by Agency pursuant to California Labor Code Section 1776.

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

Section 8. TERMINATION AND MODIFICATION.

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

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

- 8.2 Amendments.** The Parties may amend this Agreement only by a writing signed by both of the Parties.

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

Section 9. KEEPING AND STATUS OF RECORDS.

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

part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.

9.4 Confidential Information and Disclosure.

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

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

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

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

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

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

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

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

Section 10. PROJECT SITE.

- 10.1 Operations at the Project Site.** Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency; if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4; and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish, stemming from or relating to Contractor's Work.
- 10.2 Contractor's Equipment, Tools, Supplies and Materials.** Contractor shall be solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work, whether owned, leased or rented. Neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, will be responsible for any such equipment, supplies or materials which may be lost, stolen or damaged or for any additional rental charges for such. Equipment, tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to have been abandoned by the Contractor. Any transportation furnished by Agency or, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall be solely as an accommodation and neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall have liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be new and in good condition.
- 10.3 Use of Agency Equipment.** Contractor shall not use equipment owned or property provided by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, for the performance of Work.

Section 11. WARRANTY.

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

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

- 12.1** Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.
- 12.2** Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.
- 12.3** Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
- 12.4** Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result

in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.

- 12.5** Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of all written accident reports, and coordinate with Agency if further investigation is requested.
- 12.6** Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.
- 12.7** Contractor shall develop a plan to properly handle and dispose of any hazardous wastes, if any, Contractor generates in performing the Work.
- 12.8** Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.
- 12.9** Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials shall include diesel fuel used for trucks owned or leased by the Contractor.
- 12.10** If Contractor is providing Work to an Agency Member, SCPPA or SCPPA member (collectively "Member" solely for the purpose of this section) pursuant to Section 1.4 hereof, then that Member shall have the same rights as the Agency under Sections 12.1, 12.2, 12.4, 12.5, and 12.6 hereof.

Section 13. MISCELLANEOUS PROVISIONS.

- 13.1** **Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- 13.2** **Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.

- 13.3 Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- 13.4 No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- 13.5 Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- 13.6 Conflict of Interest.** Contractor may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*
- Contractor shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*
- 13.7 Contract Administrator.** This Agreement shall be administered by Ken Speer, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- 13.8 Notices.** Any written notice to Contractor shall be sent to:

Greg Perrone, General Manager
TNG Energy Services
3505 Standard Street
Bakersfield, CA 93308
greg@tngenergyservices.com

Any written notice to Agency shall be sent to:

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

With a copy to:

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

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

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

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

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

13.15 No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

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

NORTHERN CALIFORNIA POWER AGENCY

TNG ENERGY SERVICES

Date_____

Date_____

RANDY S. HOWARD, General Manager

GREG PERRONE, General Manager

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT A
SCOPE OF WORK

TNG Energy Services ("Contractor") shall provide labor, materials and tools to service wellhead valves and other associated equipment as requested by the Agency as part of NCPA's preventive maintenance and continuing operations at the Geothermal Facilities. Services include rebuilding WKM Well Valves for stock.

The Scope of Work excludes any work that would qualify as a public works project under the Public Contract Code and guidelines established by the State of California. **EXHIBIT B**

COMPENSATION SCHEDULE AND HOURLY FEES

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



CALIFORNIA / NEVADA WAGE

SCHEDULE January 1, 2018 through

December 31, 2018

Day Rates	Straight Time	Holidays	Prevailing Wage Rates	Prevailing Wage Saturday	Prevailing Wage Sunday
Field Service Engineer	\$1,500.00	\$2000.00	\$1,950.00	\$2,250.00	\$3,000.00
Field Service Supervisor	\$1,250.00	\$1650.00	\$1,625.00	\$1,875.00	\$2,500.00
Field Service Technician	\$950.00	\$1,250.00	\$1,235.00	\$1,425.00	\$1,900.00
Certified Welder	\$1,100.00	\$1,450.00	\$1430.00	\$1,650.00	\$2,200.00
Welder Helper	\$950.00	\$1,250.00	\$1,235.00	\$1,425.00	\$1,900.00
Service Vehicles (per day)	\$825.00	\$825.00	\$825.00	\$825.00	\$825.00

- These rates include wages, benefits, meals and lodging, payroll taxes, worker's compensation, overhead, tools, PPE, and required insurances. This does not include state sales taxes.
- Designated Holidays: New Year's Day, Memorial Day, Veteran's Day, Independence Day, Labor Day, Thanksgiving Day, the day after Thanksgiving Day, and Christmas day.
- All additional consumable materials, rentals, freight, and third-party subcontracts shall have a fifteen percent (15%) handling charge.
- All work to be performed under the TNG and NCPA MSA
- Terms: Net 30

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

EXHIBIT C – Not Applicable

CERTIFICATION

Affidavit of Compliance for Contractors

I,

(Name of person signing affidavit)(Title)

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

(Company name)

for contract work at:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____ day of _____, 20 _____.

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

EXHIBIT D – Not Applicable

CERTIFICATION

Affidavit of Compliance for Hazardous Materials Transport Vendors

I, _____,

(Name of person signing affidavit)(Title)

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

(Company name)

for hazardous materials delivery to:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____ day of _____, 20 ____.

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

EXHIBIT E – Not Applicable

**ATTACHMENT A [from MLA]
AGREEMENT TO BE BOUND**

**MAINTENANCE LABOR AGREEMENT ATTACHMENT
LODI ENERGY CENTER PROJECT**

The undersigned hereby certifies and agrees that:

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

DATED: _____ Name of Employer _____

(Authorized Officer & Title)

(Address)



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Commission Staff Report

Date: April 17, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: TNT Industrial Contractors, Inc. – Five Year Multi-Task General Services Agreement for general T&M maintenance services; Applicable to the following projects: All NCPA Facility Locations, Members, SCPPA, and SCPPA Members

AGENDA CATEGORY: Consent

FROM:	Ken Speer <i>KS</i>	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Combustion Turbines	

IMPACTED MEMBERS:

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

If other, please specify

RECOMMENDATION:

Approval of Resolution 18-31 authorizing the General Manager or his designee to enter into a Multi-Task General Services Agreement with TNT Industrial Contractors, Inc. for general T&M maintenance services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$2,000,000.00 over five years, for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (“SCPPA”), or by SCPPA Members.

BACKGROUND:

General T&M maintenance services are required from time to time related to project support at facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (“SCPPA”), or by SCPPA Members.

FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed \$2,000,000.00 over five years, to be used out of NCPA approved budgets as services are rendered. Purchase orders referencing the terms and conditions of the Agreement will be issued following NCPA procurement policies and procedures.

SELECTION PROCESS:

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA currently has similar agreements in place with Performance Mechanical, Inc., Danick Mechanical, and RAM Mechanical. NCPA seeks bids from multiple qualified providers whenever services are needed. Bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

The recommendation above was reviewed by the Facilities Committee on April 4, 2018, and was recommended for Commission approval on Consent Calendar.

The recommendation above was reviewed by the Lodi Energy Center Project Participant Committee on April 9, 2018, and was approved.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. S. Howard".

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution
- Multi-Task General Services Agreement with TNT Industrial Contractors, Inc.

RESOLUTION 18-31

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A MULTI-TASK GENERAL SERVICES AGREEMENT WITH TNT INDUSTRIAL CONTRACTORS, INC.

(reference Staff Report #142:18)

WHEREAS, general T&M maintenance related services are periodically required at the facilities owned and/or operated by Northern California Power Agency (NCPA), its Members, the Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, TNT Industrial Contractors, Inc. is a provider of these services; and

WHEREAS, NCPA seeks to enter into a Multi-Task General Services Agreement with TNT Industrial Contractors, Inc. to provide such services as needed at all NCPA Generation facility locations, Member, SCPPA, and SCPPA Member facilities in an amount not to exceed \$2,000,000 over five years; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into a Multi-Task General Services Agreement with TNT Industrial Contractors, Inc. with any non-substantial changes as approved by the NCPA General Counsel, which shall not exceed \$2,000,000 over five years for general T&M maintenance services for use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (SCPPA), or by SCPPA Members.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2018 by the following vote on roll call:

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

BOB LINGL
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



**MULTI-TASK
GENERAL SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
TNT INDUSTRIAL CONTRACTORS, INC.**

This Multi-Task General Services Agreement ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and TNT Industrial Contractors, Inc., a corporation with its office located at 3600 51st Avenue, Sacramento, CA 95823 ("Contractor") (together sometimes referred to as the "Parties") as of _____, 2018 ("Effective Date") in Roseville, California.

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

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

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

Section 2. COMPENSATION. Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED TWO MILLION** dollars (\$2,000,000.00) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

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

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

Invoices shall be sent to:

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

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

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

2.4 Authorization to Perform Work. The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

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

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

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

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

4.2 Commercial General and Automobile Liability Insurance.

4.2.1 Commercial General Insurance. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a minimum limit of \$1,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.

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

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

4.3 Professional Liability Insurance. Not Applicable.

4.4 Pollution Insurance. Not Applicable.

4.5 All Policies Requirements.

4.5.1 Verification of coverage. Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2 and in Section 4.4, if applicable, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

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

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

4.5.4 Additional Certificates and Endorsements. If Contractor performs Work for Agency members, SCPPA and/or SCPPA members pursuant to this Agreement, Agency shall have the right to require Contractor to provide the certificates of insurance and/or policy endorsements, as referenced in Section 4.5.1, naming the specific Agency member, SCPPA and/or SCPPA member for which the Work is to be performed.

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

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

Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

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

Section 6. STATUS OF CONTRACTOR.

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

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

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

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

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

of construction, repair and/or maintenance projects, then Contractor shall execute Exhibit E and/or similar documentation as to compliance.

Section 7. LEGAL REQUIREMENTS.

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

Additionally, in accordance with the California Administrative Code, Title 8, Group 3, Article 2, Section 16000, Publication of Prevailing Wage Rates by Awarding

Bodies, copies of the applicable determination of the Director can be found on the web at: <http://www.dir.ca.gov/DLSR/PWD/> and may be reviewed at any time.

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

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

Section 8. TERMINATION AND MODIFICATION.

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

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

- 8.2 Amendments.** The Parties may amend this Agreement only by a writing signed by both of the Parties.

- 8.3 Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.

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

8.4.1 Immediately terminate the Agreement;

8.4.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Contractor pursuant to this Agreement;

- 8.4.3** Retain a different Contractor to complete the Work not finished by Contractor; and/or
- 8.4.4** Charge Contractor the difference between the costs to complete the Work that is unfinished at the time of breach and the amount that Agency would have paid Contractor pursuant hereto if Contractor had completed the Work.

Section 9. KEEPING AND STATUS OF RECORDS.

- 9.1 Records Created as Part of Contractor's Performance.** All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.
- 9.2 Contractor's Books and Records.** Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.
- 9.3 Inspection and Audit of Records.** Any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.
- 9.4 Confidential Information and Disclosure.**
- 9.4.1 Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality

agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as Confidential Information in accordance with this section.

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

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

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

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

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

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

Section 10. PROJECT SITE.

- 10.1 Operations at the Project Site.** Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency; if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4; and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish, stemming from or relating to Contractor's Work.
- 10.2 Contractor's Equipment, Tools, Supplies and Materials.** Contractor shall be solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work, whether owned, leased or rented. Neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, will be responsible for any such equipment, supplies or materials which may be lost, stolen or damaged or for any additional rental charges for such. Equipment, tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to have been abandoned by the Contractor. Any transportation furnished by Agency or, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall be solely as an accommodation and neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall have liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be new and in good condition.
- 10.3 Use of Agency Equipment.** Contractor shall assume the risk and is solely responsible for its use of any equipment owned and property provided by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, for the performance of Work.

Section 11. WARRANTY.

- 11.1 Nature of Work.** In addition to any and all warranties provided or implied by law or public policy, Contractor warrants that all Work shall be free from defects in design and workmanship, and that Contractor shall perform all Work in accordance with applicable federal, state, and local laws, rules and regulations including engineering, construction and other codes and standards and prudent electrical utility standards, and in accordance with the terms of this Agreement.

11.2 Deficiencies in Work. In addition to all other rights and remedies which Agency may have, Agency shall have the right to require, and Contractor shall be obligated at its own expense to perform, all further Work which may be required to correct any deficiencies which result from Contractor's failure to perform any Work in accordance with the standards required by this Agreement. If during the term of this Agreement or the one (1) year period following completion of the Work, any equipment, supplies or other materials or Work used or provided by Contractor under this Agreement fails due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable written notice from Agency, replace or repair the same to Agency's satisfaction.

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

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

12.1 Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.

12.2 Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.

12.3 Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.

12.4 Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.

- 12.5** Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of all written accident reports, and coordinate with Agency if further investigation is requested.
- 12.6** Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.
- 12.7** Contractor shall develop a plan to properly handle and dispose of any hazardous wastes, if any, Contractor generates in performing the Work.
- 12.8** Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.
- 12.9** Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials shall include diesel fuel used for trucks owned or leased by the Contractor.
- 12.10** If Contractor is providing Work to an Agency Member, SCPPA or SCPPA member (collectively "Member" solely for the purpose of this section) pursuant to Section 1.4 hereof, then that Member shall have the same rights as the Agency under Sections 12.1, 12.2, 12.4, 12.5, and 12.6 hereof.

Section 13. MISCELLANEOUS PROVISIONS.

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

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

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

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

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

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

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

13.8 Notices. Any written notice to Contractor shall be sent to:

TNT Industrial Contractors, Inc.
Attention: Joshua Twist
3600 51st Avenue
Sacramento, CA 95823

Any written notice to Agency shall be sent to:

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

With a copy to:

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

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

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

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

13.15 No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

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

NORTHERN CALIFORNIA POWER AGENCY

TNT INDUSTRIAL CONTRACTORS, INC.

Date _____

Date _____

RANDY S. HOWARD,
General Manager

JOSHUA TWIST,
President

Attest:

Assistant Secretary of the Commission

Approved as to Form:

General Counsel

EXHIBIT A

SCOPE OF WORK

TNT Industrial Contractors, Inc. ("Contractor") shall provide T&M maintenance services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by Agency, its Members, Southern California Public Power Authority (SCPPA) or SCPPA Members.

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

- 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

The Scope of Work excludes any work that would qualify as a public works project under the Public Contract Code and guidelines established by the State of California.

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

These rates are effective through June 30, 2019

Classification	Straight Time	Overtime	Double-time
Pipefitter Journeyman	\$106.84	\$142.00	\$172.51
Pipe Welder / Foreman	\$118.25	\$154.96	\$201.00
Carpenter	\$106.00	\$151.00	\$193.00
Laborer	\$79.20	\$100.80	\$122.40
Shop man / Truck Driver	\$75.20	\$96.80	\$118.40
Project Manager	\$105.00		
Sr. Project Manager	\$125.00		

Working Hours: - Straight time pay for the first 8 hours in a regular working shift, and time and one half pay up to 10 hours. After 10 hours they shall receive double time pay. On Saturdays, Pipefitters receive time and one half for the first 10 hours of work, and double time after 10 hours. On Sundays and holidays Pipefitters will receive double-time pay.

Show up time: - Workers whom show up for work and no work is provided shall receive the following show up time pay: Pipefitters – 4 hours, Laborers – 2 hours. This is language that is in our collective bargaining agreements. We will organize and manage our projects to make sure our craftsmen are properly utilized to prevent all non-productive expenditures.

Shop Fabrication: - Any shop fabrication that takes place will have a \$75 fee per day.

Equipment: - All rental equipment will be charged at local rental rates plus 10% overhead and 10% profit.

Materials: - Will be billed at cost plus 10% overhead and 10% profit markup.

Subcontractors: Will be billed at cost plus ten percent mark up. Our payment terms are Net Fifteen Days.

Bookkeeping services will be billed at \$65.00 per hour, not to exceed forty hours per work week.

These rates are subject to change due to insurance or other unforeseen costs. You will be notified in advance of any possible changes.

TNT Industrial Contractors, Inc. 2018 Equipment Rates			
Equipment	Standard Equipment Stock 3/4T Truck	T & M Per Hourly Rate	T & M Per Day Rental Price
Cutting torch setup	Yes	\$ 5.00	\$ 40.00
Bandsaw, portable	Yes	\$ 1.88	\$ 15.00
Air impact wrenches		\$ 3.13	\$ 25.00
Chain hoist	Yes	\$ 8.75	\$ 70.00
Cable come-a-long	Yes	\$ 1.88	\$ 15.00
Magnetic drill press		\$ 6.25	\$ 50.00
7.5 Ton boom truck		\$ 62.50	\$ 500.00
Forklift 4K electric		\$ 18.75	\$ 150.00
Portable generator		\$ 6.25	\$ 50.00
Electrical distribution panel		\$ 7.50	\$ 60.00
Gang box		\$ 3.13	\$ 25.00
Ironworker / press		\$ 18.75	\$ 150.00
Multi ton rollers		\$ 3.13	\$ 25.00
9 inch grinder	Yes	\$ 1.88	\$ 15.00
4.5 inch grinder	Yes	\$ 1.13	\$ 9.00
Straight grinder	Yes	\$ 2.50	\$ 20.00
Roto-hammer	Yes	\$ 3.13	\$ 25.00
Gas cut-off saw		\$ 6.25	\$ 50.00
Electric cut-off saw 10"		\$ 6.25	\$ 50.00
7.25" worm drive carpenter saw	Yes	\$ 3.13	\$ 25.00
Pipe cutter 1/2" - 4"	Yes	\$ 3.13	\$ 25.00
Pipe roller	Yes	\$ 10.00	\$ 80.00
Pipe alignment clamp	Yes	\$ 1.25	\$ 10.00
Hydrostatic test pump (10,000 psig)		\$ 6.25	\$ 50.00
Fabrication table		\$ 1.25	\$ 10.00
Builders level		\$ 3.13	\$ 25.00
Laser level w/ tri-pod		\$ 6.25	\$ 50.00
Tri-pod pipe vise	Yes	\$ 3.13	\$ 25.00
Pipe jacks	Yes	\$ 0.63	\$ 5.00

Threading Machine 1/2" - 2"		\$ 12.50	\$ 100.00
Auto wire feed welders		\$ 9.38	\$ 75.00
250 Amp (gas) portable welder w/ 50' leads		\$ 15.00	\$ 120.00
250 & 300 amp (480/3/60) portable welder w/ 50' leads		\$ 12.00	\$ 96.00
Weld lead, 50 feet		\$ 1.88	\$ 15.00
Stud welder		\$ 12.50	\$ 100.00
150A Tig welder (110/1/60)		\$ 5.50	\$ 44.00
Plasma torch (480/3/60)		\$ 9.38	\$ 75.00
1/2 & 3/4 Ton pick up truck		\$ 16.88	\$ 135.00
1 Ton 12ft. Flatbed		\$ 18.75	\$ 150.00
24 ft. Flat Bed Truck		\$ 31.25	\$ 250.00
PVC heater		\$ 1.88	\$ 15.00
Fischer Pipe Saw		\$ 6.25	\$ 50.00
Gehl 10K Extendable Forklift		\$ 62.50	\$ 500.00
310 Deere Backhoe		\$ 50.00	\$ 400.00
Sullair 185 cfm Air Compressor		\$ 16.88	\$ 135.00
2 axle Dump Trailer		\$ 11.25	\$ 90.00
Gas Powered Wacker		\$ 10.63	\$ 85.00
Victaulic Groover		\$ 8.13	\$ 65.00
PAC III Walk behind concrete saw (plus blade replacement)		\$ 10.63	\$ 85.00

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

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

EXHIBIT C

CERTIFICATION

Affidavit of Compliance for Contractors

I, Joshua Twist, President

(Name of person signing affidavit)(Title)

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

TNT Industrial Contractors, Inc.

(Company name)

for contract work at:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____ day of _____, 20 _____.

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

NOT APPLICABLE

EXHIBIT D

CERTIFICATION

Affidavit of Compliance for Hazardous Materials Transport Vendors

I, _____,

(Name of person signing affidavit)(Title)

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

(Company name)

for hazardous materials delivery to:

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

(Project name and location)

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

(Signature of officer or agent)

Dated this _____ day of _____, 20 ____.

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

EXHIBIT E

**ATTACHMENT A [from MLA]
AGREEMENT TO BE BOUND**

**MAINTENANCE LABOR AGREEMENT ATTACHMENT
LODI ENERGY CENTER PROJECT**

The undersigned hereby certifies and agrees that:

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

DATED: _____ Name of Employer _____

(Authorized Officer & Title)

(Address)



Commission Staff Report

April 18, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: Approval of Letter of Agreement 18-SNR-02130

AGENDA CATEGORY: Consent

FROM:	David Dockham <i>D.Dockham</i>	METHOD OF SELECTION:
	AGM, Power Management	N/A
Division:	Power Management	<i>If other, please describe:</i>
Department:	Industry Restructuring	

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

RECOMMENDATION:

NCPA staff recommends that the Commission adopt and approve Letter of Agreement 18-SNR-02130, and authorize the General Manager of NCPA to execute Letter of Agreement 18-SNR-02130, on behalf of NCPA, including any non-substantive modifications to Letter of Agreement 18-SNR-02130 approved by NCPA's General Counsel.

BACKGROUND:

Northern California Power Agency (NCPA) members are subject to a variety of environmental mandates that require the use of Renewable Energy Credits (RECs) to demonstrate compliance with the state's legislative mandate and goal that not less than 50% of retail sales be served by renewable energy resources by 2030.

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

LETTER OF AGREEMENT:

Pursuant to Letter of Agreement 18-SNR-02130, WAPA has established a program to distribute RECs produced by CVP facilities to preference power customers. Certain NCPA members who have assigned their Base Resource percentage to NCPA have requested NCPA to enter into Letter of Agreement 18-SNR-02130, on their behalf, in order for NCPA to receive RECs from WAPA.

Letter of Agreement 18-SNR-02130 specifies the terms and conditions under which RECs are transferred from WAPA to preference power customers. Letter of Agreement 18-SNR-02130 has a term of one (1) year, expiring July 31, 2019; applies to RECs produced by CVP facilities in 2018; and allows either party to terminate the agreement upon a 30-day prior written notice. RECs received pursuant to Letter of Agreement 18-SNR-02130 are nontransferable, except NCPA may transfer RECs to members it represents under the agreement. WAPA does not warrant or represent that the RECs provided from the CVP will satisfy any Federal or State renewable energy mandates.

Letter of Agreement 18-SNR-02130 is attached to this staff report for your reference.

FISCAL IMPACT:

Costs associated with entering into Letter of Agreement 18-SNR-02130 are estimated to be less than \$10,000 for the term of the agreement, and will be allocated according to Base Resource percentages of the represented members. NCPA's administrative costs for development and administration of the agreement will be allocated to members in accordance with approved cost allocation methodologies as described the NCPA annual budget.

ENVIRONMENTAL ANALYSIS:

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

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. S. Howard", with a stylized flourish at the end.

RANDY S. HOWARD
General Manager

Attachments: 2 (Resolution 18-32 and Letter of Agreement 18-SNR-02130)

RESOLUTION 18-32

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVAL OF LETTER OF AGREEMENT 18-SNR-02130

(reference Staff Report #144:18)

WHEREAS, Northern California Power Agency (NCPA) members are subject to a variety of environmental mandates that require the use of Renewable Energy Credits (RECs) to demonstrate compliance with the state's legislative mandate and goal that not less than 50% of retail sales be served by renewable energy resources by 2030; and

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

WHEREAS, pursuant to Letter of Agreement 18-SNR-02130, WAPA has established a program to distribute RECs produced by CVP facilities to preference power customers, and certain NCPA members who have assigned their Base Resource percentage to NCPA have requested NCPA to enter into Letter of Agreement 18-SNR-02130, on their behalf, in order for NCPA to receive RECs from WAPA; and

WHEREAS, Letter of Agreement 18-SNR-02130 specifies the terms and conditions under which RECs are transferred from WAPA to preference power customers, and

WHEREAS, Letter of Agreement 18-SNR-02130 has a term of one (1) year, expiring July 31, 2019; applies to RECs produced by CVP facilities in 2018; and allows either party to terminate the agreement upon a 30-day prior written notice, and

WHEREAS, costs associated with entering into Letter of Agreement 18-SNR-02130 are estimated to be less than \$10,000 for the term of the agreement, and will be allocated according to Base Resource percentages of the represented members, and NCPA's administrative costs for development and administration of the agreement will be allocated to members in accordance with approved cost allocation methodologies as described the NCPA annual budget, and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency adopts and approves Letter of Agreement 18-SNR-02130, and authorizes the General Manager of NCPA to execute Letter of Agreement 18-SNR-02130, on behalf of NCPA, including any non-substantive modifications to Letter of Agreement 18-SNR-02130 approved by NCPA's General Counsel.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2018 by the following vote on roll call:

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

BOB LINGL
CHAIR

ATTEST: _____
CARY A. PADGETT
ASSISTANT SECRETARY



Department of Energy
Western Area Power Administration
Sierra Nevada Customer Service Region
114 Parkshore Drive
Folsom, California 95630-4710

APR 9 2018

Letter of Agreement 18-SNR-02130

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

Dear Mr. Howard:

The Northern California Power Agency (NCPA) is a customer of the Western Area Power Administration's (WAPA) Sierra Nevada Region (SNR) and has executed Base Resource Contract 04-SNR-00782 with WAPA. Some of SNR's customers have requested that SNR make the renewable energy credits (RECs) that may be associated with SNR's hydropower generation available to them to assist in meeting their renewable requirements. Although SNR is willing to initiate a 2018 REC Program, SNR does not warrant or represent that the RECs it provides under this program will satisfy any Federal or State renewable portfolio standards.

This Letter of Agreement (LOA) provides the terms and conditions under which SNR will apportion RECs to participants in the 2018 REC Program in association with power generated in 2018.

1. Participation in SNR's REC Program:

- 1.1 In order to receive an apportionment of RECs from SNR's REC Program, NCPA must be a Western Renewable Energy Generation Information System (WREGIS) Account Holder. SNR will not apportion or create RECs for NCPA until its WREGIS Account Holder status has been verified.
- 1.2 Project use customers may participate in SNR'S REC Program by providing written notice to WAPA at least 60 days prior to the first day of the first month that such customer desires to begin participation.
- 1.3 All RECs provided under this LOA shall be from the vintages January 2018 through December 2018.

- 1.4 For the purposes of participating in SNR's REC Program under this LOA, NCPA shall include the following members and the base resource percentages they have assigned to NCPA:

- 1.4.1 Alameda Municipal Power
- 1.4.2 Biggs, City of
- 1.4.3 Gridley, City of
- 1.4.4 Healdsburg, City of
- 1.4.5 Lodi, City of
- 1.4.6 Lompoc, City of
- 1.4.7 Oakland, Port of
- 1.4.8 Plumas-Sierra Rural Electric Cooperative
- 1.4.9 Ukiah, City of

2. Definitions:

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

3. Apportionment of RECs:

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

3.1 CVP RECs:

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

- 3.1.3 Finally, SNR will apply NCPA's actual month's Base Resource percentage as determined in Subsection 3.1.2 above to the CVP RECs associated with that month's Base Resource from each unit/project as determined in 3.1.1 to determine NCPA's apportionment of CVP RECs for each month in calendar year 2018.

3.2 Unclaimed RECs:

- 3.2.1 SNR will normalize the participating customers' Base Resource percentages for calendar year 2017 by dividing each customer's Base Resource percentage by the total of all participating customers' Base Resource percentages.
- 3.2.2 SNR will then apply NCPA's normalized percentage to the total Unclaimed RECs for each month in 2018 to determine NCPA's apportionment of Unclaimed RECs.
- 3.2.3 NCPA acknowledges that its normalized percentage, used for the apportionment of Unclaimed RECs, may change during the term of this LOA depending on the number of participating customers.

3.3 Stampede RECs:

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

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

4. Nontransferable:

NCPA hereby acknowledges and agrees that RECs associated with WAPA power are neither transferable nor available for resale by NCPA; Except That, NCPA may transfer RECs received through SNR's REC Program to the members listed in Subsection 1.4 above.

5. Compensation to WAPA:

5.1 WAPA's costs to administer SNR's REC Program will be paid by those participants receiving an apportionment of SNR's RECs through WREGIS. Each participant's costs will be determined based on the participant's *pro rata* share of RECs. WAPA's costs will include, but are not limited to, the following:

5.1.1 WAPA's costs to join WREGIS as an account holder;

5.1.2 WAPA's costs for WREGIS to create RECs;

5.1.3 WAPA's costs for transferring RECs from its WREGIS account to participant's WREGIS account;

5.1.4 Any other costs WAPA may incur for its participation in WREGIS to operate this program; and

5.1.5 Any other costs WAPA may incur from a third-party due to providing services hereunder.

5.2 These costs will be provided as a line item on NCPA's monthly electric service bill from WAPA.

6. General Power Contract Provisions:

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

7. Term:

7.1 This LOA must be signed by NCPA on or before June 1, 2018 in order for NCPA to participate in SNR's 2018 REC Program.

7.2 This LOA shall become effective on June 1, 2018, and shall terminate July 31, 2019; Provided, That either NCPA or SNR may terminate this LOA upon 30 days advance written notice. All obligations created under this LOA while in effect shall remain until satisfied.

If you are in agreement with the terms and conditions written above, please indicate your approval by signing and dating both originals of this LOA and return one to

Letter of Agreement 18-SNR-02130

Ms. Sandee Peebles (N6213) at this office. If you have any questions, please contact Sandee at (916) 353-4454.

Sincerely,



Sonja A. Anderson
Vice President of Power Marketing
for Sierra Nevada Region

In Duplicate

NORTHERN CALIFORNIA POWER AGENCY

By: _____

Title: _____

Address: _____

Date: _____



Commission Staff Report

April 18, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: Hometown Connections, Inc. – Become an initial Member of Hometown Connections, Inc. (HCI), Pay Membership Fee, Appoint NCPA's Representative and Alternate Representative, and Provide Financial and Accounting Support Services to HCI

AGENDA CATEGORY: Discussion/Action

FROM:	Randy S. Howard <i>[Signature]</i>	METHOD OF SELECTION:
	General Manager	N/A
Division:	Executive Services	
Department:	General Manager	

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

RECOMMENDATION:

NCPA Staff recommends that the Commission approve Resolution 18-24 authorizing the General Manager or his designee to make payment for the buy in amount required to become an initial Member of Hometown Connections, Inc., (HCI). The buy in amount shall not exceed \$265,000, and shall include the following political subdivisions or governmental instrumentalities, as approved by their governing bodies (collectively "Joint Action Entities"):

Alabama Municipal Electric Authority (AMEA)
American Municipal Power, Inc. (AMP Ohio)
MPUA Resource Services Corporation (MPUA RSC)
Northern California Power Agency (NCPA)
Vermont Public Power Supply Authority (VPPSA)

NCPA Staff recommends that the Commission designate the following persons to serve as the Representative and Alternative Representative on the HCI Board of Directors ("Board") for NCPA, and that they shall serve until his or her successor is appointed by NCPA or until his or her earlier death, resignation, inability to serve, removal, or disqualification:

NCPA:

Representative: Randy S. Howard, General Manager

Alternative Representative: Monty Hanks, Chief Financial Officer

NCPA Staff recommends that the Commission approve NCPA Staff participation as officers on the Board, support the Board of Directors election of Randy S. Howard to serve as the Chair of the Board and Monty Hanks to serve as Chief Financial Officer for a term of two years, and support all duties and responsibilities thereof.

NCPA Staff also recommends that the Commission authorize the General Manager or his designee to enter into an agreement to provide financial and accounting support services to HCI with any non-substantial changes as approved by NCPA General Counsel, which HCI Board of Directors has approved to not exceed \$25,000 one-time set-up fee, an annual audit and tax filing fee of approximately \$17,500, and a monthly fee of approximately \$2,750, which shall escalate annually and increase with increased activity.

BACKGROUND:

NCPA Members tasked NCPA Staff with expanding the services that NCPA provides to its Members. However, NCPA Members also requested NCPA Staff minimize additional direct costs to Members caused by increasing staffing and increasing PERS liability at NCPA to provide these services. Thus, NCPA Staff has worked with Joint Action Entities from across the country to find a way to increase the purchasing power and obtain additional savings for NCPA's Members. The Joint Action Entities decided to explore the creation of a nationwide joint action entity that could expand the services each joint action entity could provide on their own. The culmination of that effort is this proposal to become an initial member of HCI.

The idea and discussion began with AMP Ohio presenting the opportunity to obtain a robust advanced metering infrastructure (AMI) program at a reduced cost. Since only some of NCPA's Members have deployed AMI, NCPA Staff asked AMP Ohio representatives to come to the Utility Directors' Retreat in 2017 to present their program. AMP Ohio had over 20 responses to its extensive request for proposal process and selected Silver Spring. The Silver Spring system not only provides a large platform for multiple levels of analysis, but also allows any meter to connect and work with its system. AMP Ohio has invested over a million dollars in setting up the system. NCPA was not the only agency looking to take advantage of the work AMP Ohio has already done on AMI. As more entities considered getting AMI from AMP Ohio, the price per meter continued to decrease.

AMP Ohio also wanted to set up a separate entity to hold the AMI system as it expanded beyond AMP Ohio's members. Thus, the Joint Action Entities began to discuss the formation of a new entity to leverage their collective buying power to obtain cost reductions for an expanded group of services to include, but also expand beyond AMI. Since Hometown Connections International already existed to provide services to the American Public Power Association (APPA) members, the Joint Action Entities believe it provides an existing staff structure for launching HCI. Hometown Connections International is currently and through a 10-year services agreement with APPA, will continue to be recommended by and endorsed by APPA. NCPA Staff saw an opportunity to meet one of NCPA's strategic goals of expanding services to NCPA Members without adding all of the staff required to provide these additional services.

NCPA is based upon the many benefits of joint action. NCPA Members have worked together to take advantage of economies of scale and to increase legislative and regulatory influence. This same goal of public power entities joining together to obtain programs, equipment and services at large scale pricing is driving the creation of HCI. HCI would focus on expanding the services offered through NCPA's Support Services Program including AMI, public power management consulting and large scale pricing for vendor services. Joining HCI would further the initiatives in NCPA's Strategic Plan. "New Services and/or New Business Structures" is one of NCPA's initiatives to achieve NCPA's Vision and Mission. NCPA's Vision is to be the premier provider of energy services to public entities. NCPA's Mission is to provide our members cost effective wholesale power, delivery support, energy-related services, and advocacy on behalf of public power consumers through joint action.

Through participation in HCI, NCPA Members would have access to the robust AMI system AMP Ohio has created with Silver Spring at competitive rates. As an initial member of HCI, NCPA Members will have favorable pricing verses those entities that are not members of HCI. Hometown Connections International's current services include public power management consulting, public power auxiliary staff to fill temporary positions and preferential pricing from vendors. Hometown Connections International has preferential pricing in the areas of community solar, compensation studies, cost of service studies/rate design, customer and employee research, customer engagement, customer information solutions, cyber liability insurance, cybersecurity monitoring, energy analysis, energy trading & risk management, energy workforce solutions, interactive distributed generation, IT services, LED outdoor lighting, meter and operational data, mobile workforce solutions, performance management, property insurance, smart grid software, smart meters, and technology consulting.

Organizational Structure

HCI will be a charitable nonstock Delaware corporation. Similarly, Randy S. Howard is currently the Chairman of the Central Valley Project Corporation ("CVP Corp"), a California nonprofit corporation. NCPA handles all of the board meetings, staff support and accounting for CVP Corp. CVP Corp directs the displacement program with the Western Area Power Administration and restoration fund program and budget leveling services. Thus, NCPA has familiarity with using the nonprofit corporation structure to meet the needs of NCPA's Members. And, the potential initial members of HCI have asked NCPA to assume similar accounting support for HCI giving NCPA clear vision into the financials of HCI.

HCI will acquire the assets of Hometown Connections International from the APPA and Alabama Municipal Electric Authority. In addition, AMP Ohio will contribute its AMI program to HCI. Each entity that decides to become an initial member will contribute \$265,000 in cash or in kind as an initial contribution to establish HCI. Any further contributions will be at the discretion of each member. To keep the liability within HCI, all binding agreements will be among HCI and the selling entities. None of the members of HCI, all of whom are joint action entities, will be pledging assets or providing security for HCI's acquisitions. HCI will enter into an asset purchase agreement for the assets held by Hometown Connections International and will acquire the assets held by APPA and Alabama Municipal Electric Authority. HCI will be assigned Hometown Connections International's current vendor discount agreements. HCI will be the only signatory on all of the agreements.

The small number of employees at Hometown Connections International have a defined bonus program structured to retain employees – a Long-term Retention Compensation Plan, and a 401K plan with a 3% match. Although HCI will be taking all employees and their existing bonus structure, the retirement plan is employee funded and does not contain PERS like outstanding liabilities.

Each HCI Member will have a director on the HCI Board. From this platform NCPA will be able to influence the direction of HCI and the programs and services it provides. Although offering AMI services is an initial focus of HCI, the Joint Action Entities also want to provide large scale discount pricing for other services.

All of the other Joint Action Entities have passed resolutions to become initial members of HCI, so NCPA will be the last entity to act on this proposal. Hometown Connections International has an existing relationship with The Energy Authority (TEA) who is a direct competitor with NCPA for power management services in California and is going to serve the County of Los Angeles and the City of Long Beach community choice programs. If NCPA is not a member of HCI, TEA will continue to be HCI's preferred provider for those services.

FISCAL IMPACT:

Total cost of the initial membership is \$265,000. This project was not included in the current fiscal year budget however funds are available in the General Manager's budget to fund this project. Cost allocation will be based on 50/50 participation percentages; 50% based on size allocation and 50% equally shared. No additional budget augmentation is being requested with this approval.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

The recommendation provided herein was reviewed by the Utility Director Group on several dates and was discussed by the NCPA Legal Committee.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "D. D. Howard" with a stylized flourish at the end.

RANDY S. HOWARD
General Manager

Attachment:

- Resolution18-24

RESOLUTION 18-24

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING INITIAL MEMBERSHIP IN HOMETOWN CONNECTIONS, INC. (HCI), PAYING MEMBERSHIP FEE, APPOINTING NCPA'S REPRESENTATIVE AND ALTERNATE REPRESENTATIVE, AND PROVIDE FINANCIAL AND ACCOUNTING SUPPORT SERVICES TO HCI

(reference Staff Report #133:18)

WHEREAS, NCPA's Strategic Plan and desire of the Members is to expand the new services and/or new business structures that will provide our Members cost effective energy-related services on behalf of public power consumers through joint action; and

WHEREAS, Hometown Connections, Inc., is established to offer energy-related vendor products with aggregated pricing, management and energy related consulting services, training support, and technology services and support, such as AMI; and

WHEREAS, Hometown Connections, Inc., filed the "State of Delaware Certificate of Incorporation A Non-Stock Corporation" with the State of Delaware Secretary of State for Hometown Connections, Inc., on March 27, 2018; and

WHEREAS, Hometown Connections, Inc., applied for and received from the Internal Revenue Service an Employer Identification Number for the Corporation; and

WHEREAS, Hometown Connections, Inc., has agreed to acquire the assets of Hometown Connections International; and

WHEREAS, the membership of Hometown Connections, Inc., scheduled an organizational meeting on April 10, 2018, and carried out the business of the Corporation; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency hereby adopts and approves the following:

1. MEMBERSHIP

Authorizes the General Manager or his designee to make a payment for the buy in amount required to become an initial Member of Hometown Connections, Inc., with any non-substantial changes as approved by NCPA General Counsel, which shall not exceed \$265,000 and which shall include the following political subdivisions or governmental instrumentalities, as approved by their governing bodies:

Alabama Municipal Electric Authority (AMEA)
American Municipal Power, Inc. (AMP Ohio)
MPUA Resource Services Corporation (MPUA RSC)
Northern California Power Agency (NCPA)
Vermont Public Power Supply Authority (VPPSA)

2. APPOINTMENT OF NCPA REPRESENTATIVE AND ALTERNATE REPRESENTATIVE FOR THE BOARD OF DIRECTORS

Designates the following persons to serve as the NCPA Representative or Alternative Representative on the Board of Directors and shall serve until his or her successor is appointed by NCPA, that made the previous appointment or until his or her earlier death, resignation, inability to serve, removal or disqualification:

NCPA

Representative: Randy S. Howard, General Manager

Alternative Representative: Monty Hanks, Chief Financial Office

3. ELECTION OF OFFICERS

Approves that on April 10, 2018, the Board of Directors elected Randy S. Howard to serve as the Chair of the Board and Monty Hanks to serve as Chief Financial Officer for a term of two years and that the NCPA Commission supports these appointments and all duties and responsibilities thereof.

4. FINANCIAL AND ACCOUNTING SERVICES

Authorizes the General Manager or his designee to enter into an Agreement to provide financial and accounting support services to Hometown Connections, Inc., with any non-substantial changes as approved by NCPA General Counsel, which HCI Board of Directors has approved to not exceed \$25,000 one-time set-up fee, an annual audit and tax filing fee of approximately \$17,500, and a monthly fee of approximately \$2,750 which shall escalate annually and increase with increased activity.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2018 by the following vote on roll call:

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

BOB LINGL
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY



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Commission Staff Report

April 18, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: Approval of Fiscal Year 2019 Annual Budget

AGENDA CATEGORY: Discussion/Action

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

IMPACTED MEMBERS:

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

If other, please specify

RECOMMENDATION:

The NCPA Commission adopt and approve the FY 2019 Annual Budget and Working Capital Deposit and Funding Requirement as outlined in Resolution 18-25 and as detailed in the attached budgetary support and Annual Budget document.

BACKGROUND:

In October 2017, the Commission approved budget guidance for the NCPA FY 2019 Annual Budget. Staff began preparation of the proposed budget during the following months. From January through April 12, 2018, staff presented the budget to various Commission Committees as follows:

- Facilities Committee (February 13th, March 13th)
- Legislative and Regulatory Committee (February 21st)
- Utility Directors (March 9th Retreat), (April 12th)
- Budget Preview (Commission meeting March 22nd)
- Lodi Energy Center Project Participants Committee (February 12th, March 12th, April 9th)

Presentations made to the Commission and Committees during review of the proposed FY 2019 Annual Budget are located on the NCPA website at: www.ncpa.com under the Meetings heading/ Committees subheading on the dates indicated. The entire budget document is available on the Agency's extranet site, [NCPA Connect](#).

All changes resulting from the budget review meetings have been incorporated into the proposed FY 2019 Annual Budget.

Overview of the FY 2019 Annual Budget

This proposed budget totals \$363.5 million (net of revenues). Overall results are 0.35% or \$1.3 million dollar increase over the FY 2018 approved budget. Budget changes include:

- Overall operating costs (non-personnel related) are 5.9% above 2018 budget levels mainly due to increased maintenance costs at LEC for increased generation.
- Higher transmission costs due to higher load forecast (\$7.6 million)
- Increased overall operating and maintenance costs (\$4.4 million) mainly due to projected increase in generation.
- Increased Member Contracts related to new contracts in effect for full year (\$2.7 million)
- Salaries and benefits increased primarily due to a reduction of the CalPERS discount rate for the retirement plan (\$2.2 million).
- Increased projected energy purchases by LEC including regulation down requirements (\$1.4 million)
- Net increase of 1.83 FTE composed of 0.37 increase in Human Resources / Administration, 1.00 FTE increase for casual intern positions and 0.46 additional FTE in Hydroelectric plant.
- LEC debt service costs decreased \$0.3 million resulting from the 2017 refunding. NCPA continues to monitor federal budget cuts to the Build America Bonds interest subsidy program (\$0.5 million). Restoration of this funding continues to be a focus of current advocacy efforts in Washington DC.

- Decreased net Load Aggregation costs related to decreased purchase pricing per MWhr (\$2.9 million)
- Hydroelectric debt service costs decreased \$3.1 million as a result of the 2018 refunding
- Increased LEC revenues (\$32.6 million) offset by increased fuel costs (\$18.2 million) related to higher generation.

Working Capital Deposit and Funding Requirement

The Agency provides Working Capital for its Participants and Programs through a combination of:

- Month Ahead Advance Billing;
- Project Financed Deposits; and
- Working Capital Participant Deposits of 15 to 30 days' equivalencies – see attached Analysis of Working Capital Requirements.

In connection with the preparation of the Annual Budget, the Working Capital Participant Deposits are adjusted each year to reflect any changes in the Annual Budget. The proportional allocation of these deposits are based on the participant's percentage in each Project or Program. Any additional deposit required is billed via the monthly All Resources Bill (ARB) and any Refund credit is deposited to the participant's account in the NCPA General Operating Reserve (GOR).

Please note calculations for the Lodi Energy Center have not been included based on the 60-day Operating Reserve requirement in the Power Sales Agreement (PSA) for that Project.

Staff will provide a brief PowerPoint presentation at the Commission meeting outlining the changes made after the March 22, 2018 Commission meeting. A summary of the proposed annual budget, analysis of the working capital deposit and funding requirement, and a copy of the PowerPoint presentation are attached.

FISCAL IMPACT:

The Executive Summary section of the budget document contains an analysis of the overall budget. Total proposed annual budget cost for FY 2019 is approximately \$363.5 million, which represents an increase of 0.35% or a 1.3 million dollar increase over the FY 2018 budget as summarized in the attached schedule. Allocation of the FY2019 Annual Budget between members and LEC participants are based on participation levels in NCPA programs and projects and the approved cost allocations. Final funding allocation for each member is attached to this staff report and shown on page 137 of the budget document.

The total calculated FY 2019 Working Capital Deposit and Funding Requirements for the Annual Budget has increased \$55,658 or 0.58%. The increase is primarily from higher transmission costs due to increased generation. The attached schedule shows each participant's Additional Requirement Charge or (Refund). The Additional Requirement Charge will be billed on the next ARB following Commission approval, and Refunds of credit amounts will likewise be deposited into the applicable participant's individual GOR account.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

The Legislative and Regulatory (L&R) Committee reviewed the L&R Program budget at their meeting on February 21, 2018 and unanimously approved the proposed program budget and recommended approval by the full NCPA Commission.

The Facilities Committee reviewed the Generation Services (except LEC), Power Management and Administrative Services/Executive Services budget at their meetings on February 13th and March 13th. The Committee unanimously recommended approval of the Generation Services budgets, Power Management budget, and the Administrative and Executive Services budget.

The Lodi Energy Center Participants Committee reviewed the project budget on February 12th, March 12th, and unanimously recommended approval to the full Commission at the April 9th meeting.

On February 13, 2018 the Finance Committee reviewed and recommended to the Commission the continued funding of the PERS and OPEB unfunded liability at the 15 year amortization schedule.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments:

- Resolution 18-25
- Budget Summary
- Participant Funding Summary
- Pay Schedule
- Analysis of Working Capital Deposit and Funding Requirements
- PowerPoint Presentation (Budget)

RESOLUTION 18-25

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY ADOPTING THE FISCAL YEAR 2019 ANNUAL BUDGET AND WORKING CAPITAL DEPOSIT AND FUNDING REQUIREMENTS AND ADJUSTMENTS

(reference Staff Report #136:18)

WHEREAS, the Amended and Restated Northern California Power Agency Joint Powers Agreement ("the JPA") provides in Article III section 3 that,

"3. None of the debts, liabilities, or obligations of NCPA shall be the debts, liabilities or obligations of any of the parties to this [Joint Powers] Agreement unless assumed in a particular case by resolution of the governing body of the party to be charged"; and

WHEREAS, certain members have assumed obligations of NCPA through approval of agreements by their governing bodies, such as the project third phase agreements, the Pooling Agreement, the Facilities Agreement, the Power Management and Administrative Services Agreement, the Scheduling Coordination Program Agreement, etc.; and

WHEREAS, the JPA provides in Article IV section 3(a) that,

"3(a). Each party hereto agrees that it will annually contribute, in proportion to its respective total retail electric power load (or where no retail load exists, the consumptive power load, or where no consumptive power load exists, other suitable measure as approved by the Commission) for the previous calendar year, to a fund or budget of NCPA which may cover up to one-third of legislative and regulatory activities or other NCPA general expenses not covered by other agreements or revenue sources, as may be approved by the Commission; and that such annual cash contribution to said fund or budget by any party may be up to fifteen cents (\$0.15) per megawatt hour (MWh) of said total retail electric power load or consumptive power load, or where no consumptive power load exists, other suitable measure as approved by the Commission, as submitted by such party to the Federal Energy Regulatory Commission or other governmental regulatory authority"; and

WHEREAS, the Amended and Restated Rules of Procedure for the Commission of the Northern California Power Agency (the NCPA Bylaws) provide in section 11 that,

"11. Budgets.

(a) NCPA Budget. The General Manager shall, not later than at the regular Commission meeting in May of each year, present a proposed budget for the ensuing fiscal year to the Commission, together with a statement of the payments to be required from the Members by such budget. Such budget shall include the various NCPA Project budgets. The Commission shall adopt such budget by resolution, with any changes ordered by it, not later than the regular meeting in June"; and

WHEREAS, in accordance with the NCPA Bylaws, the General Manager of NCPA has presented a proposed budget for Fiscal Year 2019; and

WHEREAS the proposed budget in accordance with the JPA includes a proposed charge to the members of \$0.15 per MWh for a total assessment pursuant to the JPA of \$1,399,416; and

WHEREAS, certain of the members of NCPA have from time to time entered into a variety of agreements for the development and operation of NCPA Projects and Programs by which said members have agreed to be responsible for the costs of said Projects and Programs; and

WHEREAS, costs for each of the NCPA Projects and NCPA Programs have been included in the proposed 2019 NCPA Annual Budget, and the Participants in each such NCPA Project and NCPA Program acknowledge that approval of the NCPA Annual Budget constitutes approval of the annual budget for each of said Programs and Projects; and

WHEREAS, all other costs not included in the JPA assessment have been primarily incurred, by original design, either directly or indirectly on behalf of NCPA Projects or in support of NCPA Programs developed and approved by the members over the years; and

WHEREAS, Project and Program costs have been equitably allocated between and among the NCPA Projects and Programs and such equitable allocation methodology has been approved by the Commission in previous budgets and through specific studies and Commission actions via Resolution 10-16 (Power Management Costs), Resolution 10-106 (Legislative and Regulatory Costs); and

WHEREAS, all such costs are operating and maintenance costs within the meanings and descriptions provided in both the Third-Phase (Take-Or-Pay) Agreements and the Federal Energy Regulatory Commission (FERC) Uniform Chart of Accounts, used to account for the Projects; and

WHEREAS, the Project Participants in all NCPA Projects through recommendation of the NCPA Facilities Committee and the Lodi Energy Center Project Participant Committee have recommended approval of a FY 2019 Annual Budget; and

WHEREAS, the participants in the Legislative and Regulatory Programs through recommendation of the Legislative and Regulatory Committee have recommended approval of the Legislative and Regulatory program budget as presented in the 2019 Annual Budget; and

WHEREAS, the FY 2019 Annual NCPA Budget is a comprehensive document that delineates, among other things, each member's fully allocated financial cost responsibility in connection with each and every service provided by the Agency through its various projects and programs; and

WHEREAS, the FY 2019 Annual Budget for individual Projects as recommended by the respective Project participants of the various Projects and the related costs and revenues thereof are reflected in the Agency's proposed FY 2019 Annual NCPA Budget; and

WHEREAS, the Agency provides Working Capital for its Projects and Programs through a combination of month ahead advanced billing, project financed deposits; and working capital participant deposits of 15 to 30 days' equivalencies; and

WHEREAS, the Fiscal Year 2019 Working Capital Deposit and Funding Requirement schedule shows each participant's Additional Requirement Charge or (Refund); and

WHEREAS, the Additional Requirement Charge will be billed on the next ARB following Commission approval, and Refunds of credit amounts will be deposited into the applicable participant's individual NCPA G.O.R. account; and

WHEREAS, the FY 2019 Annual NCPA Budget document also contains certain proposed position changes, reclassifications and salary or pay schedules which also require Commission approval; and

NOW, THEREFORE, BE IT RESOLVED by the Commission of the Northern California Power Agency as follows:

Section 1. This Commission hereby finds and determines that the recitals contained herein above are true and correct.

Section 2. This Commission finds that the adoption of this resolution is exempt from the California Environmental Quality Act. It is not an action which will cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment (reference staff report 147:17).

Section 3. This Commission hereby irrevocably adopts, approves, and authorizes the program and project budgets which are an integral part of the Fiscal Year 2019 Annual Budget of the Agency, and it hereby irrevocably adopts, approves, and authorizes the Fiscal Year 2019 Annual Budget of the Agency. The Commission members hereby confirm their commitment and that of their respective member agencies, to provide funding of the Fiscal Year 2019 Annual Budget of the Agency in proportion to their individual shares therein, as shown in the attached summary of budget costs after full allocation of costs to all projects and programs of the Agency.

Section 4. This Commission hereby irrevocably adopts, approves, and authorizes the related participant charges or refunds from the analysis of the Working Capital Deposit and Funding Requirement schedule for Fiscal Year 2019.

Section 5. Notwithstanding the generality of the foregoing, the Commission does hereby approve the classification and position changes and salary or pay schedules as noted in the Annual Budget and authorizes the General Manager to implement such changes.

PASSED, ADOPTED and APPROVED this _____ day of _____, 2018 by the following vote on roll call:

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

BOB LINGL
CHAIRPERSON

ATTEST: _____
CARY PADGETT
ASSISTANT SECRETARY

**NORTHERN CALIFORNIA POWER AGENCY
ANNUAL BUDGETS**

GENERATION RESOURCES

NCPA Plants

Hydroelectric
Geothermal
Combustion Turbine No. 1
Combustion Turbine No. 2 (STIG)
Lodi Energy Center
Subtotal

Member Resources - Energy

Member Resources - Natural Gas

Western Resource

NCPA Contracts & Market Power Purchases

Load Aggregation Costs

Net GHG Obligations

Subtotal

TOTAL GENERATION RESOURCES

TRANSMISSION

Independent System Operator

Grid Management Charge (GMC)

GMC Wheeling

Ancillary Services (AS)

Other Charges

TOTAL TRANSMISSION

MANAGEMENT SERVICES

Legislative & Regulatory

Legislative Representation

Regulatory Representation

Western Representation

Member Support Services

Subtotal

Judicial Action

Judicial Action Direct Cost to Programs

Power Management

System Control And Load Dispatch:

Dispatch & Real-time Resource Management

Schedule Coordination

System Control. And Data Acquisition

WECC/NERC Compliance & Participation

Subtotal

FISCAL YEAR ENDED JUNE 30				
	2018	Inc/(Dec)	Proposed 2019	Budget %
\$	29,345,740	\$ (1,989,838)	\$ 27,355,902	7.3%
	2,810,394	4,137,842	6,948,236	1.8%
	3,079,562	153,795	3,233,357	0.9%
	7,626,594	(383,672)	7,242,922	1.9%
	42,238,392	(10,905,072)	31,333,320	8.3%
Subtotal	85,100,682	(8,986,945)	76,113,737	20.2%
	53,389,034	(26,167,898)	27,221,136	7.2%
	677,365	36,105	713,470	0.2%
	1,959,285	(3,770,569)	(1,811,284)	-0.5%
	19,318,025	(18,499,318)	818,707	0.2%
	82,803,522	59,726,138	142,529,660	37.9%
	445,917	677,055	1,122,972	0.3%
	158,593,148	12,001,513	170,594,661	45.3%
Subtotal	243,693,830	3,014,568	246,708,398	65.6%

2,466,609	1,195,662	3,662,271	1.0%
96,760,295	7,778,679	104,538,974	27.8%
2,526,940	180,434	2,707,374	0.7%
1,058,438	490,836	1,549,274	0.4%
Subtotal	102,812,282	112,457,893	29.9%

1,974,784	45,337	2,020,121	0.5%
836,683	48,817	885,500	0.2%
827,758	17,493	845,251	0.2%
433,973	(1,412)	432,561	0.1%
Subtotal	110,235	4,183,433	1.1%
625,000	-	625,000	0.2%
Subtotal	(117,342)	(70,623)	0.0%
2,360,611	35,218	2,395,829	0.6%
2,358,317	146,448	2,504,765	0.7%
953,259	55	953,313	0.3%
183,698	51,367	235,065	0.1%
Subtotal	233,088	6,088,973	1.6%

**NORTHERN CALIFORNIA POWER AGENCY
ANNUAL BUDGETS**

Continued

Forecasting Planning, Prescheduling & Trading	
Forecasting	
Resource Planning, Optimization, Risk Analysis & Mgmt.	
Power & Fuel Transactions	
Pre-Scheduling	
Power Pool Oper. & Settlement Standards	
Facilities Agreement Administration	
Subtotal	
Industry Restructuring & Regulatory Affairs	
Contract Admin, interconnection Svcs & External Affairs:	
Contract Maint, Negotiation and Administration & Litigation	
TANC Representation & Advocacy	
Western Representation & Advocacy	
Pooling Agreement Coordination and Administration	
Subtotal	
Green Power Project	
Gas Purchase Program	
Market Purchase Power Project	
Power Management Direct Cost to Programs	
Subtotal - Power Management	
Energy Risk Management	
ROC, RMC Meetings & Activities	
Counter-party Credit Review & Analysis	
Subtotal	
Settlements	
Deal Control Validation & Monitoring	
ISO Data Validation & Monitoring	
Subtotal	
Integrated Systems Support	
TOTAL MANAGEMENT SERVICES	
PARTICIPANT PASS THROUGH COSTS (TANC, DUES, ETC)	
SUPPORT SERVICES	
SUPPORT SERVICES REIMBURSEMENTS	
TOTAL NET ANNUAL BUDGET COST	
OTHER THIRD PARTY REVENUE	
PM Service Revenue (Allocated via Nexant methodology)	
PM Service Revenue (Allocated via A&G methodology)	
Revenue from Customers	
Subtotal	
TOTAL ADJUSTED NET ANNUAL BUDGET COST	

FISCAL YEAR ENDED JUNE 30				Budget %
2018	Inc/(Dec)	Proposed 2019		
628,127	14,799	642,926		0.2%
504,210	45,518	549,728		0.1%
137,431	8,129	145,560		0.0%
808,840	32,260	841,100		0.2%
391,357	11,862	403,218		0.1%
172,969	9,137	182,105		0.0%
2,642,934	121,704	2,764,638		0.7%
423,320	13,063	436,383		0.1%
872,114	(32,129)	839,985		0.2%
17,686	652	18,338		0.0%
159,218	5,462	164,680		0.0%
100,491	5,150	105,641		0.0%
1,149,510	(20,866)	1,128,644		0.3%
16,909	(16,166)	743		0.0%
88,012	(10,592)	77,420		0.0%
128,639	(21,782)	106,857		0.0%
(1,361,775)	(13,736)	(1,375,511)		-0.4%
8,943,434	284,713	9,228,147		2.5%
57,865	51,444	109,299		0.0%
146,975	(1,397)	145,578		0.0%
204,830	50,047	254,877		0.1%
302,651	56,176	358,828		0.1%
470,190	107,219	577,408		0.2%
772,841	163,395	936,236		0.2%
316,568	(47,408)	269,160		0.1%
14,818,529	607,701	15,426,230		4.1%
1,525,907	93,263	1,619,170		0.4%
-	42,316	42,316		0.0%
-	(42,316)	(42,316)		0.0%
\$ 362,850,548	\$ 13,361,143	\$ 376,211,691		100.0%
535,500	1,162,132	1,697,632		
59,500	129,126	188,626		
-	10,785,006	10,785,006		
595,000	12,076,264	12,671,264		
\$ 362,255,548	\$ 1,284,879	\$ 363,540,427		

Northern California Power Agency
Participant Funding Requirements (Net)
FY 2019 Budget

GENERATION RESOURCES																			
	Budget	Alameda	BART	Bayless	Gridley	Healdsburg	Lodi	Lompoc	Palo Alto	Plumas Sierra	Port of Oakland	Redding	Roseville	Santa Clara	Shasta Lake	Truckee-Donner	Udall	TID	All Other
Hydro	\$27,355,902	\$2,897,169	\$ -	\$ -	\$ -	\$3,181,191	\$3,004,368	\$665,349	\$6,640,312	\$469,622	\$ -	\$ -	\$2,233,989	\$10,614,873	\$ -	\$ -	\$691,022	\$ -	\$ -
Geothermal	6,966,283	1,194,876	-	16,878	23,743	285,327	729,647	255,826	-	49,851	-	-	-	3,042,923	-	-	396,297	442,790	-
Combustion Turbine No. 1	3,233,357	706,518	-	6,360	11,317	188,511	433,053	185,511	-	68,740	-	-	655,727	1,347,233	-	-	293,912	-	-
Combustion Turbine No. 2 (STIG)	7,262,222	1,376,165	-	-	-	1,880,954	2,680,964	385,046	-	-	-	-	2,640,768	1,347,233	-	-	-	-	-
Load Energy Center	31,533,220	-	2,146,765	87,216	639,626	834,439	3,092,923	652,766	-	265,796	-	-	-	8,353,436	-	-	881,370	-	14,946,896
Member Resources-Energy	70,130,764	6,170,816	2,146,765	109,453	674,684	1,300,868	10,120,842	2,142,687	6,640,312	853,769	628,007	-	5,426,484	23,283,464	-	-	1,862,602	442,790	14,946,896
Member Resources-Natural Gas	27,231,136	3,338,267	-	-	-	-	982,413	-	20,667,746	3,716	-	-	-	1,741,489	-	-	-	-	-
Western Resource	719,470	-	-	9,451	36,334	26,682	418,603	143,126	-	3,716	-	-	-	-	-	-	82,176	-	-
Western Resource & Market Power Purchases	(151,129)	(151,129)	-	(26,346)	(64,126)	(64,126)	(1,198,916)	(221,548)	(1,198,916)	(221,548)	(68,637)	-	-	(35,174)	-	-	(35,174)	-	-
NCPA Contracts & Market Power Purchases	819,307	428,003	-	-	217,547	2,934,146	11,044	42,739	33,886,236	4,656,419	5,062,381	-	-	32,269,586	-	-	4,988,101	-	9,561,057
Load Aggregation Costs	142,629,660	12,691,811	14,976,307	612,224	3,965,272	2,534,146	16,518,884	4,994,207	-	-	-	-	-	-	-	-	123,559	-	-
Net GHG Obligations	1,122,672	7,659	305,678	14,885	122,174	102,651	381,220	55,745	-	-	-	-	-	-	-	-	123,559	-	-
TRANSMISSION	170,694,651	16,041,380	16,709,888	807,826	1,678,633	3,039,462	19,237,068	6,203,852	62,373,068	4,307,686	5,622,351	-	-	33,992,894	-	-	4,261,861	-	9,561,057
NCPA Plant Transmission *	246,726,446	22,211,898	17,885,653	717,278	2,351,473	4,340,420	28,588,291	7,346,449	69,913,378	5,221,385	6,622,351	-	-	67,280,548	-	-	6,124,263	-	23,607,763
Geothermal Plant 1	(6,469)	(2,139)	-	(70)	(70)	(680)	(3,046)	(883)	-	(169)	-	-	-	(1,040)	-	-	(1,040)	-	-
Geothermal Plant 2	(17,647)	(2,156)	-	(82)	(82)	(470)	(689)	(470)	-	(229)	-	-	-	(1,436)	-	-	(1,436)	-	-
Independent System Operator	112,457,893	5,247,532	9,839,602	460,645	763,610	1,900,809	10,851,829	3,240,198	22,160,964	3,001,462	3,362,748	-	-	43,836,287	-	-	2,760,607	-	2,233,331
MANAGEMENT SERVICES	112,400,246	5,242,591	9,835,602	460,602	763,502	1,899,668	10,888,095	3,239,034	22,160,964	3,001,233	3,362,748	-	-	43,836,287	-	-	2,775,748	-	2,233,331
LEGISLATIVE & REGULATORY	1,390,651	76,594	-	47,731	49,294	52,532	82,586	57,550	123,689	69,117	63,786	111,540	146,280	369,467	62,765	59,609	66,320	-	-
Legislative Representation	699,678	33,136	-	20,922	21,608	23,202	36,201	26,236	54,174	26,513	23,892	46,892	64,997	153,919	27,608	26,129	24,488	-	-
Regulatory Representation	845,251	24,286	9,801	6,948	13,312	6,863	11,462	6,696	247,826	36,404	12,179	164,274	97,714	193,347	-	11,177	8,963	-	-
Western Representation	945,851	24,286	9,801	6,948	13,312	6,863	11,462	6,696	247,826	36,404	12,179	164,274	97,714	193,347	-	11,177	8,963	-	-
JPA Assessment	1,337,853	69,617	2,629	5,403	5,403	12,691	66,609	20,851	144,993	23,463	13,864	119,840	187,386	589,083	30,161	24,366	17,402	-	-
Judicial Action	4,182,433	188,771	69,418	99,617	99,617	93,817	186,868	109,853	667,693	143,887	103,243	444,546	486,377	1,268,507	120,413	121,280	104,654	-	-
Tariffs & Rates	684,377	66,520	935	2,694	4,608	11,762	63,916	17,498	119,786	17,743	12,853	-	20,406	166,373	-	-	18,991	2,074	-
Contingency **	50,000	50,000	935	2,694	4,608	11,762	63,916	17,498	119,786	17,743	12,853	-	20,406	166,373	-	-	18,991	2,074	-
POWER MANAGEMENT	954,377	54,520	935	2,694	4,608	11,762	63,916	17,498	119,786	17,743	12,853	-	20,406	166,373	-	-	18,991	2,074	-
Power Mgmt. SCALD, ISS, Energy Risk Mgmt & Settlements	10,603,400	586,431	675,469	66,942	103,514	214,337	1,183,016	322,692	1,799,207	352,467	403,814	-	619,882	3,398,908	-	-	438,228	141,884	-
Green Power Program	743	-	743	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Market Purchase Program	166,857	10,900	26,111	10,900	10,900	10,900	12,961	11,686	-	-	-	-	-	-	-	-	10,800	-	-
Gas Purchase Program	77,420	-	-	7,626	8,666	8,666	26,361	15,241	-	-	-	-	-	-	-	-	11,282	-	-
TANCS-SOT	173,354	69,924	-	7,881	8,978	7,881	68,826	8,978	133,167	7,748	-	-	-	624,333	-	-	10,076	-	-
BANK Consulting	857,890	-	188,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biggs 60KV	4,700	-	-	4,700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
APPA Dues	302,665	21,911	1,059	3,815	6,460	26,365	12,391	38,377	38,377	487	487	43,912	60,262	67,513	11,440	12,185	8,146	-	-
SEPA Dues	19,800	2,438	487	487	487	487	2,438	487	2,438	487	487	2,438	2,438	2,437	487	487	487	-	-
DEED Dues	24,861	1,742	85	85	303	514	2,616	985	3,951	667	667	3,491	3,997	5,397	985	667	667	-	-
CEE Dues	10,800	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	-	-
Subscriptions	18,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metering Maintenance	120,000	5,126	68,000	5,126	2,663	2,663	7,689	5,178	10,262	5,126	10,262	-	6,000	3,500	-	-	5,126	-	-
Member Service Projects **	100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VRGIS Certificate Transfer Fees**	10,900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pass Through Costs	1,619,170	191,916	240,000	12,133	7,834	18,571	107,688	28,867	183,949	14,628	11,468	83,005	63,382	603,816	13,179	14,308	26,149	-	-
Support Services	42,316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Services Reimbursements	(42,316)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER THIRD PARTY REVENUE	1,637,532	(138,400)	(189,223)	(9,585)	(16,896)	(23,851)	(188,689)	(60,104)	(267,213)	(51,915)	(87,710)	-	(74,297)	(623,642)	-	-	(68,139)	(28,234)	(97,435)
PM Service Revenue (Vexant)	(153,326)	(20,899)	(7,376)	(84)	(2,412)	(6,891)	(26,217)	(6,875)	(13,374)	(3,144)	(1,281)	(975)	(14,058)	(77,943)	(64)	(354)	(8,101)	-	-
Revenue from Customers	(10,756,006)	(159,289)	(116,699)	(16,329)	(21,109)	(39,241)	(213,216)	(66,579)	(270,637)	(66,659)	(69,000)	(975)	(81,368)	(601,595)	(64)	(354)	(74,239)	(20,234)	(10,786,006)
JPA Assessment - Others	61,463	(2,469)	(2,739)	(116)	(248)	(855)	(3,060)	(945)	(6,823)	(1,078)	(829)	(6,505)	(8,006)	(26,683)	(1,385)	(1,119)	(79)	7,335	94,128
Non-NCPA Participants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Credits to Participants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NET ANNUAL BUDGET COST	\$ 383,548,427	\$ 31,616,488	\$ 28,481,613	\$ 1,291,071	\$ 3,339,966	\$ 6,647,079	\$ 40,328,732	\$ 11,832,016	\$ 84,460,378	\$ 8,694,616	\$ 9,446,084	\$ 481,071	\$ 6,431,460	\$ 106,816,171	\$ 132,163	\$ 134,116	\$ 9,437,078	\$ 672,096	\$ 14,932,881
FY2018 Net Annual Budget Cost	381,653,928	31,753,162	27,651,775	1,276,172	3,448,727	6,662,626	41,830,600	11,360,888	89,300,941	9,789,954	9,294,938	480,622	7,116,198	94,182,118	-	138,352	9,233,823	318,759	20,705,807
Incr (decr)	1,894,499	(167,264)	1,139,740	14,899	(107,773)	(124,547)	(1,503,768)	(328,872)	(4,832,663)	(1,095,338)	3,241,950	649	(686,748)	11,634,053	132,163	(1,237)	203,266	282,336	(6,832,906)

* Geothermal transmission shown separately from Plant due to participant allocation differences.

** Memo only - Estimates included in NET ANNUAL BUDGET COST, but not allocated to Participants due to contingent nature of costs.

Funding Requirin Funding Requirements (Net)

**Northern California Power Agency
Participant Funding Requirements (Gross)
FY 2019 Budget**

GENERATION RESOURCES	Budget	Alameda	BART	Biggs	Gridley	Hendeburg	Lodi	Lompoc	Palo Alto	Plumas	Port of Oakland	Redding	Roseville	Santa Clara	Shasta Lake	Truckee-Donner	Utah	TID	All Other
Hydro	\$51,856,515	\$5,333,953	\$ -	\$ -	\$ -	\$ 722,686	\$ 5,531,309	\$1,226,909	\$ 12,225,020	\$ 911,438	\$ -	\$ -	\$ 85,140,125	\$ 18,683,539	\$ -	\$ -	\$ 1,089,125	\$ -	\$ -
Geothermal	34,332,072	5,736,112	-	77,534	115,356	1,261,360	3,529,337	1,263,784	-	240,688	-	-	2,705,597	15,240,178	-	-	-	2,772,592	-
Combustion Turbine No. 1	3,806,701	830,404	-	7,468	13,320	221,988	593,769	221,988	-	89,198	-	-	3,194,244	1,585,710	-	-	3,465,358	-	-
Combustion Turbine No. 2 (STIG)	8,742,852	1,691,142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Load Energy Center	85,162,734	-	5,710,880	231,008	1,899,716	1,421,507	8,220,353	1,761,483	12,225,020	878,881	-	-	3,194,244	22,281,470	-	-	1,545,165	-	41,910,380
Member Resources-Energy	183,899,874	13,621,611	5,710,880	317,228	1,828,392	3,927,591	21,244,135	4,900,093	12,225,020	1,981,105	-	-	11,400,865	68,783,937	-	-	4,905,804	2,173,392	41,910,380
Member Resources-Natural Gas	64,448,474	17,620,467	-	-	-	-	1,894,281	-	40,183,307	248,220	2,791,020	-	-	-	-	-	-	-	-
Western Resources	3,086,278	-	-	31,302	137,483	106,272	1,891,935	564,185	-	-	-	-	-	-	-	-	387,231	-	-
NCPA Contracts & Market Power Purchases	31,842,618	2,092,846	-	480,541	1,937,634	417,552	945,332	635,776	20,439,444	3,841,465	1,004,448	-	-	-	-	-	674,290	-	-
Load Aggregation Costs	15,635,033	185,910	12,791,166	-	294,176	-	1,937,595	670,197	-	-	-	-	-	-	-	-	-	-	-
Net O&M Obligations	273,896,269	12,891,811	15,674,075	613,234	1,365,272	2,834,146	16,518,894	4,984,207	33,887,980	5,963,599	5,052,381	-	-	127,000,226	-	-	4,324,251	-	42,806,333
Member Resources-Energy	1,122,874	7,659	305,678	14,468	122,174	102,651	381,220	65,745	-	-	-	-	-	-	-	-	123,559	-	-
Member Resources-Natural Gas	389,416,894	32,698,803	28,670,609	1,149,483	3,716,868	3,950,521	23,239,257	6,820,030	94,530,621	10,733,344	8,807,848	-	-	128,141,725	-	-	5,388,331	-	42,960,333
Transmission	573,316,888	45,130,414	34,351,789	1,463,691	4,545,380	7,188,062	44,683,392	11,729,123	105,758,051	11,964,149	8,807,848	-	-	11,400,865	167,535,622	-	10,296,135	2,173,392	84,511,723
NCPA Plant Transmission *	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geothermal Plant 1	54,905	18,164	-	-	404	3,537	17,629	3,954	-	671	-	-	3,357	-	-	-	6,020	-	-
Geothermal Plant 2	35,434	10,253	-	265	317	2,350	3,591	2,390	-	7,302	-	-	7,302	-	-	-	3,651	-	-
Independent System Operator	83,339	29,105	-	285	602	5,527	21,129	5,344	-	1,389	-	-	11,238	-	-	-	9,671	7,387	-
MANAGEMENT SERVICES	112,821,723	8,257,590	8,988,369	410,638	787,002	1,800,030	10,898,242	3,245,016	22,222,951	3,016,556	3,387,397	-	11,238	44,008,919	-	-	2,783,401	-	2,223,940
LEGISLATIVE & REGULATORY	112,816,062	8,256,686	8,978,998	410,638	785,504	1,800,297	10,879,271	3,245,409	22,222,951	3,017,018	3,387,397	-	-	44,008,919	-	-	2,783,072	-	2,223,940
Legislative Representation	1,395,674	75,897	-	47,803	49,472	55,123	82,884	57,798	124,026	69,331	53,993	111,943	148,915	361,720	62,869	58,874	56,022	-	-
Regulatory Representation	611,710	33,252	-	20,995	21,683	23,293	35,327	25,315	54,364	26,904	23,684	48,053	65,224	154,167	27,804	26,226	24,624	-	-
Western Representation	848,180	24,369	9,835	5,868	13,598	5,090	11,502	6,618	246,679	35,526	12,221	164,839	89,051	194,015	-	11,212	5,987	-	-
JPA Assessment	1,340,689	83,855	59,739	2,534	5,414	12,116	65,745	20,623	23,510	33,510	13,712	120,085	187,769	560,226	30,212	24,416	17,437	-	-
JPA Assessment	4,195,233	187,353	69,674	77,401	89,927	93,602	197,498	110,213	563,362	144,470	103,590	445,300	459,860	1,250,122	120,788	121,672	105,001	-	-
Judicial Action	504,377	55,830	835	2,804	4,608	11,762	63,015	17,498	119,786	17,743	12,953	-	20,405	199,373	-	-	18,991	2,074	-
Tariffs & Rates	50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contingency **	554,377	55,830	835	2,804	4,608	11,762	63,015	17,498	119,786	17,743	12,953	-	20,405	199,373	-	-	18,991	2,074	-
POWER MANAGEMENT	10,954,335	872,765	877,170	88,336	104,318	215,274	1,194,542	324,046	1,807,918	354,032	405,574	-	622,110	3,322,132	-	-	440,188	142,275	5,634
Power SCADA ISS	11,216,444	884,182	884,182	11,321	11,321	11,321	13,698	13,300	-	-	-	-	-	-	-	-	11,321	-	-
Energy Risk Mgmt. & Settlements	112,014	11,427	20,468	7,861	8,705	8,709	28,497	13,300	-	-	-	-	-	-	-	-	-	-	-
Green Power Program	17,791	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Market Purchase Program	15,487,704	884,182	709,802	85,119	124,545	234,974	1,238,525	349,398	1,807,918	354,032	405,574	-	523,110	3,322,132	120,788	121,672	462,845	142,275	5,634
Gas Purchase Program	1,227,375	780,011	165,124	218,690	340,338	4,697,093	477,308	2,487,695	516,168	576,168	522,118	445,300	1,042,974	4,126,629	120,788	121,672	598,636	144,360	5,634
TANC-SOT	173,354	83,534	-	-	7,881	68,935	8,878	-	133,167	7,748	-	-	-	524,333	-	-	10,076	-	-
BALX Consulting	837,500	-	180,000	4,700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biggs GNV	4,700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
APPA Dues	21,511	21,511	1,069	3,615	6,480	25,395	12,391	12,391	38,377	38,377	487	43,912	50,322	67,513	11,140	12,185	8,146	-	-
SEPA Dues	302,565	2,438	487	487	2,438	487	2,438	487	2,438	487	487	2,438	2,438	2,437	487	487	487	-	-
DEED Dues	24,051	1,742	85	303	514	2,016	885	3,051	3,051	3,051	667	3,491	3,937	5,367	835	963	648	-	-
CEE Dues	18,000	987	667	667	667	667	667	667	6,000	6,000	10,252	2,500	6,000	6,000	667	667	667	-	-
Subscriptions	120,000	5,125	60,000	5,125	2,563	7,889	7,889	6,179	10,252	5,125	-	-	-	3,500	-	-	5,125	-	-
Metering Maintenance	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Member Service Projects **	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WRGSC Certificate Transfer Fees**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pass Through Costs	1,615,170	101,516	240,000	12,133	7,854	15,671	107,008	25,897	193,349	14,028	11,405	53,005	83,982	603,615	13,179	14,308	25,149	-	-
Support Services	42,316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Services Reimbursements	42,316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JPA Assessment - Others	61,483	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-NCPA Participants	61,483	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Credits to Participants	61,483	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GROSS ANNUAL BUDGET COST	\$ 703,346,794	\$ 85,743,621	\$ 45,387,459	\$ 2,054,685	\$ 6,660,349	\$ 9,465,644	\$ 56,703,810	\$ 15,483,483	\$ 131,671,564	\$ 15,511,384	\$ 12,656,140	\$ 483,430	\$ 12,449,352	\$ 236,861,302	\$ 132,592	\$ 134,851	\$ 13,760,332	\$ 2,332,483	\$ 85,802,428

197,418,487	7,432,587	12,860,921	362,755	838,510	306,775	3,227,481	1,023,625	34,103,366	4,492,872	2,865,799	-	-	4,743,368	94,749,641	-	-	659,829	1,663,946	34,347,286
6,703,080	3,458,388	3,458,388	201,211	1,118,906	2,202,854	10,057,480	2,556,820	445,880	955,367	-	-	-	-	33,142,274	-	-	2,894,886	-	26,030,359
9,040,991	8,397,221	-	251	371	4,005	11,547	4,083	775,736	774	3,729	-	-	3,913	46,396	-	-	6,197	6,887	916,300
110,376	18,634	-	4,577	68,125	79,112	483,588	48,588	-	73,947	-	-	-	-	306,350	1,600,916	-	82,790	-	-
4,091,128	312,780	123,948	22,683	101,783	79,112	483,588	48,588	-	-	-	-	-	-	306,350	1,600,916	-	82,790	-	-
889,951	188,051	-	165,790	348,675	132,812	300,225	170,139	6,491,325	1,220,007	316,399	-	-	381,332	-	-	-	182,385	-	-
9,856,265	635,108	-	155,790	348,675	132,812	300,225	170,139	6,491,325	1,220,007	316,399	-	-	381,332	-	-	-	182,385	-	-
1,896,268	159,269	116,869	10,929	21,109	35,541	213,815	66,979	270,567	55,058	59,000	975	83,385	601,585	64	354	-	74,239	20,234	97,635
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
700,000	118,178	-	1,589	2,382	26,718	71,860	25,767	-	4,907	-	-	55,181	310,734	-	-	39,302	44,314	-	-
10,785,006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,679,263	45,092	3,950	14,407	38,762	216,151	50,860	183,784	23,735	3,728	1,384	-	-	153,885	581,835	385	392	48,472	24,985	436,539
15,705,946	793,615	2,521,394	2,698,564	15,377,079	4,451,487	47,205,127	3,251,255	48,468,378	18,646,616	19,446,898	-	-	153,885	581,835	439	745	4,252,313	1,760,589	71,588,844
338,000,387	24,127,353	15,705,946	793,615	2,521,394	2,698,564	15,377,079	4,451,487	47,205,127	18,646,616	19,446,898	-	-	153,885	581,835	439	745	4,252,313	1,760,589	71,588,844
335,540,427	51,616,489	26,691,513	1,261,070	3,338,955	5,567,078	40,328,315	11,032,016	84,468,378	18,646,616	19,446,898	-	-	153,885	581,835	439	745	4,252,313	1,760,589	71,588,844

**NORTHERN CALIFORNIA POWER AGENCY
ADMINISTRATIVE GENERAL WAGE STRUCTURE
Effective December 23, 2018**

GRADE		JOB CLASSIFICATION/JOB FAMILY	MINIMUM		CONTROL POINT		CTRL PT PLUS 15%	
			ANNUAL	HOURLY	ANNUAL	HOURLY	ANNUAL	HOURLY
15	¹	ACCOUNTANT/ANALYST I	68,611	32.99	85,764	41.23	98,628	47.42
17	¹	ACCOUNTANT/ANALYST II	79,288	38.12	99,111	47.65	113,977	54.80
19	¹	ACCOUNTANT/ANALYST III	91,628	44.05	114,535	55.06	131,715	63.32
9	¹	ACCOUNTING CLERK I	44,457	21.37	55,571	26.72	63,907	30.72
11	¹	ACCOUNTING CLERK II	51,376	24.70	64,220	30.87	73,853	35.51
13	¹	ACCOUNTING CLERK III	59,371	28.54	74,214	35.68	85,346	41.03
9	¹	ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR I	44,457	21.37	55,571	26.72	63,907	30.72
11	¹	ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR II	51,376	24.70	64,220	30.87	73,853	35.51
13	¹	ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR III	59,371	28.54	74,214	35.68	85,346	41.03
30	¹	AGM I/SENIOR DIRECTOR (E.g. Business Development)	203,011	97.60	253,764	122.00	291,828	140.30
31	¹	AGM II (E.g. Power Mgmt, Generation, Leg & Reg, CFO/Admin)	218,237	104.92	272,796	131.15	313,716	150.82
32	¹	AGM III	234,605	112.79	293,256	140.99	337,244	162.14
23	¹	ASSISTANT CONTROLLER	122,366	58.83	152,957	73.54	175,901	84.57
25	¹	ASSISTANT MANAGER: INFORMATION SERVICES	141,409	67.99	176,761	84.98	203,276	97.73
6E	¹	ASSISTANT, STUDENT I	27,572	13.26	34,466	16.57	39,635	19.06
6F	¹	ASSISTANT, STUDENT II	34,245	16.46	42,806	20.58	49,227	23.67
6G	¹	ASSISTANT, STUDENT III	42,565	20.46	53,206	25.58	61,187	29.42
6H	¹	ASSISTANT, STUDENT IV	49,171	23.64	61,464	29.55	70,684	33.98
14	¹	COMPUTER TECHNOLOGY ANALYST	63,824	30.68	79,780	38.36	91,747	44.11
17	¹	COMPUTER TECHNOLOGY ANALYST I	79,288	38.12	99,111	47.65	113,977	54.80
19	¹	COMPUTER TECHNOLOGY ANALYST II	91,628	44.05	114,535	55.06	131,715	63.32
21	¹	COMPUTER TECHNOLOGY ANALYST III	105,887	50.91	132,359	63.63	152,213	73.18
23	¹	COMPUTER TECHNOLOGY ANALYST IV	122,366	58.83	152,957	73.54	175,901	84.57
20	¹	ENERGY RESOURCE ANALYST III	98,500	47.36	123,125	59.19	141,593	68.07
16	¹	ENERGY RESOURCE ANALYST I	73,757	35.46	92,196	44.32	106,025	50.97
18	¹	ENERGY RESOURCE ANALYST II	85,235	40.98	106,544	51.22	122,525	58.91
23	¹	ENERGY RESOURCE ANALYST IV	122,366	58.83	152,957	73.54	175,901	84.57
16	¹	ENGINEER I	73,757	35.46	92,196	44.32	106,025	50.97
18	¹	ENGINEER II	85,235	40.98	106,544	51.22	122,525	58.91
20	¹	ENGINEER III	98,500	47.36	123,125	59.19	141,593	68.07
23	¹	ENGINEER IV	122,366	58.83	152,957	73.54	175,901	84.57
24	¹	ENGINEER V: SUPERVISING /PLANT	131,543	63.24	164,429	79.05	189,094	90.91
20	¹	ENVIRONMENTAL, HEALTH & SAFETY SPECIALIST	98,500	47.36	123,125	59.19	141,593	68.07
16	¹	EXECUTIVE ASSISTANT	73,757	35.46	92,196	44.32	106,025	50.97
31	¹	GENERAL COUNSEL	218,237	104.92	272,796	131.15	313,716	150.82
36	¹	GENERAL MANAGER	313,307	150.63	391,634	188.29	450,379	216.53
16	¹	GEOLOGIST I	73,757	35.46	92,196	44.32	106,025	50.97
18	¹	GEOLOGIST II	85,235	40.98	106,544	51.22	122,525	58.91
20	¹	GEOLOGIST III	98,500	47.36	123,125	59.19	141,593	68.07
23	¹	GEOLOGIST IV	122,366	58.83	152,957	73.54	175,901	84.57
24	¹	GEOLOGIST V	131,543	63.24	164,429	79.05	189,094	90.91
16	¹	GOVERNMENT RELATIONS REPRESENTATIVE I	73,757	35.46	92,196	44.32	106,025	50.97
18	¹	GOVERNMENT RELATIONS REPRESENTATIVE II	85,235	40.98	106,544	51.22	122,525	58.91
20	¹	GOVERNMENT RELATIONS REPRESENTATIVE III	98,500	47.36	123,125	59.19	141,593	68.07
22	¹	GOVERNMENT RELATIONS REPRESENTATIVE IV	113,829	54.73	142,286	68.41	163,629	78.67
16	¹	HUMAN RESOURCES ANALYST I	73,757	35.46	92,196	44.32	106,025	50.97
18	¹	HUMAN RESOURCES ANALYST II	85,235	40.98	106,544	51.22	122,525	58.91
20	¹	HUMAN RESOURCES ANALYST III	98,500	47.36	123,125	59.19	141,593	68.07
13	¹	HUMAN RESOURCES ASSISTANT	59,371	28.54	74,214	35.68	85,346	41.03
27	¹	HUMAN RESOURCES DIRECTOR	163,416	78.57	204,270	98.21	234,910	112.94
25	¹	HUMAN RESOURCES MANAGER	141,409	67.99	176,761	84.98	203,276	97.73
13	¹	LEGISLATIVE PROGRAM ASSISTANT	59,371	28.54	74,214	35.68	85,346	41.03
27	¹	MANAGER, INFORMATION SERVICES	163,416	78.57	204,270	98.21	234,910	112.94
27	¹	MANAGER, INFORMATION SERVICES & POWER SETTLEMENTS	163,416	78.57	204,270	98.21	234,910	112.94
29	¹	MANAGER, PLANT	188,848	90.79	236,059	113.49	271,468	130.51

**NORTHERN CALIFORNIA POWER AGENCY
ADMINISTRATIVE GENERAL WAGE STRUCTURE
Effective December 23, 2018**

GRADE		JOB CLASSIFICATION/JOB FAMILY	MINIMUM		CONTROL POINT		CTRL PT PLUS 15%	
			ANNUAL	HOURLY	ANNUAL	HOURLY	ANNUAL	HOURLY
25	¹	MANAGER, REGULATORY PROGRAM	141,409	67.99	176,761	84.98	203,276	97.73
26	¹	MANAGER, RELIABILITY COMPLIANCE	152,015	73.08	190,019	91.36	218,521	105.06
17	¹	MATERIALS/WAREHOUSE COORDINATOR I	79,288	38.12	99,111	47.65	113,977	54.80
19	¹	MATERIALS/WAREHOUSE COORDINATOR II	91,628	44.05	114,535	55.06	131,715	63.32
7	¹	OFFICE ASSISTANT I	38,470	18.50	48,088	23.12	55,301	26.59
9	¹	OFFICE ASSISTANT II	44,457	21.37	55,571	26.72	63,907	30.72
16	¹	POWER SETTLEMENTS ANALYST I	73,757	35.46	92,196	44.32	106,025	50.97
18	¹	POWER SETTLEMENTS ANALYST II	85,235	40.98	106,544	51.22	122,525	58.91
20	¹	POWER SETTLEMENTS ANALYST III	98,500	47.36	123,125	59.19	141,593	68.07
25	¹	POWER SETTLEMENTS MANAGER	141,409	67.99	176,761	84.98	203,276	97.73
23	¹	SCHEDULER/PLANNER, POWER	122,366	58.83	152,957	73.54	175,901	84.57
23	¹	SENIOR COMPUTER TECH. ANALYST, POWER (E.g. BILLING)	122,366	58.83	152,957	73.54	175,901	84.57
18	¹	SHAREPOINT ADMINISTRATOR	85,235	40.98	106,544	51.22	122,525	58.91
4	¹	STUDENT HELPER (OFFICE/PLANT)	30,971	14.89	38,709	18.61	44,512	21.40
27	¹	SUPERINTENDENT, GENERATION RESOURCES	163,416	78.57	204,270	98.21	234,910	112.94
22	¹	SUPERVISOR I, POWER SETTLEMENTS	113,829	54.73	142,286	68.41	163,629	78.67
20	¹	SUPERVISOR I, (CHEMICAL, GENERAL SERVICES)	98,500	47.36	123,125	59.19	141,593	68.07
24	¹	SUPERVISOR II, (PLANT, ENERGY RISK, ENGINEERING)	131,543	63.24	164,429	79.05	189,094	90.91
27	¹	SUPERVISOR III, (POWER MGT., COORD. OP, REG/ENV COMP)	163,416	78.57	204,270	98.21	234,910	112.94
27	¹	TREASURER-CONTROLLER	163,416	78.57	204,270	98.21	234,910	112.94
HEA	²	HYDRO TECH	93,350	44.88	120,806	58.08		
HEA	²	HYDRO TECH APPRENTICE	63,253	30.41	86,466	41.57		
HEA	²	HYDRO TECH OPERATOR	126,859	60.99	126,859	60.99		
IBEW	²	CT SPECIALIST - LEAD	132,350	63.63	132,350	63.63		
IBEW	²	CT SPECIALIST I - V	90,667	43.59	126,006	60.58		
IBEW	²	MECHANIC OPERATOR - LEAD	124,426	59.82	124,426	59.82		
IBEW	²	MECHANIC OPERATOR - LEAD (RELIEF)	124,426	59.82	124,426	59.82		
IBEW	²	MECHANIC OPERATOR I - V	90,667	43.59	118,518	56.98		
IBEW	²	OPERATOR TECHNICIAN - LEAD	127,629	61.36	127,629	61.36		
IBEW	²	OPERATOR TECHNICIAN - LEAD (RELIEF)	127,629	61.36	127,629	61.36		
IBEW	²	OPERATOR TECHNICIAN I - V	90,667	43.59	121,638	58.48		
IBEW	²	STOREKEEPER	61,464	29.55	73,736	35.45		
IBEW	²	TECHNICIAN CHEMICAL/PERFORMANCE	112,216	53.95	112,216	53.95		
IBEW	²	TECHNICIAN OPERATOR - LEAD	131,622	63.28	131,622	63.28		
IBEW	²	TECHNICIAN OPERATOR I - V	90,667	43.59	125,466	60.32		
	³	SCHEDULE COORDINATOR I	72,010	34.62	96,158	46.23		
	³	SCHEDULE COORDINATOR II	101,171	48.64	117,146	56.32		
	³	SCHEDULE COORDINATOR III	122,678	58.98	141,752	68.15		
	³	SYSTEM DISPATCHER	111,779	53.74	156,437	75.21		
	³	SYSTEM DISPATCHER, LEAD	122,678	58.98	164,278	78.98		

Page 2 of 2

Note ¹ Non-union employees whose whose salaries exceed the control may be granted a lump sum merit increase which is not added to base pay.

Note ² IBEW = International Brotherhood of Electrical Workers

HEA = Hydroelectric Employees Association

These are union classifications subject to the Memorandum of Understanding and overtime, shift differential, relief, upgrade and travel pay may be added to base pay when appropriate.

Note ³ Schedule Coordinators and Dispatchers receive overtime, relief pay in addition to step increases.

Note ⁴ Slight fluctuations from budgeted rate assumptions may exist for non-represented classifications due to methodology corrections recommended by wage and time study consultant.

**Northern California Power Agency
Analysis of Working Capital Requirements
FY 2019 Budget**

	Annual Budget Cost	30 Days Working Capital				Add'l Rqmnt (Excess Rqmnt)
		Proposed (A)	FYE 2018 Balance		Total	
			From Bonds	Operations		
GENERATION RESOURCES						
Hydroelectric	\$ 48,840,503	\$ 4,014,288	\$ 100,000	\$ 4,060,364	\$ 4,160,364	\$ (146,076)
Geothermal	34,332,082	2,821,815		2,631,913	2,631,913	189,902
Combustion Turbine No. 1	3,805,701	312,797		215,912	215,912	96,885
Combustion Turbine No. 2 (STIG)	8,742,852	718,591	1,000,000	(291,289)	708,711	9,880
Lodi Energy Center (G)	85,162,734				-	-
Member Resource - Energy (B)	64,448,814				-	-
Member Resource - Gas (B)	3,098,278				-	-
Western Resource (C)	31,349,618				-	-
Market Power Purchases (D)	15,539,033	\$ 119,532		245,926	245,926	(126,394)
Load Aggregation Costs - CAISO (H)	273,858,269					
Net GHG Obligations (I)	1,122,972				-	-
	570,300,856	7,987,023	1,100,000	6,862,827	7,962,827	24,197
TRANSMISSION						
Hydroelectric	3,016,012	247,891		266,661	266,661	(18,770)
Geothermal Plant No. 1	54,900	4,512		4,534	4,534	(22)
Geothermal Plant No. 2	38,429	3,159		3,553	3,553	(394)
ISO (E)	112,821,723					-
	115,931,064	255,562	-	274,749	274,749	(19,186)
MANAGEMENT SERVICES						
Legislative Representation	2,023,068	166,280		162,412	162,412	3,868
Regulatory Representation	886,616	72,873		68,847	68,847	4,026
Western Representation	848,160	69,712		68,189	68,189	1,523
Member Services	438,389	36,032		35,842	35,842	190
Judicial Action (F)	625,000				-	-
System Control and Load Dispatch	6,107,416	501,979		482,010	482,010	19,970
Forecasting & Prescheduling	2,775,167	228,096		217,563	217,563	10,533
Industrial Restructuring & Reg Affairs	438,813	36,067		34,864	34,864	1,203
Contract Administration	1,134,623	93,257		94,671	94,671	(1,414)
Green Power Project	2,964	244		1,459	1,459	(1,215)
Gas Purchase Program	77,781	6,393		7,244	7,244	(851)
Market Purchase Program	112,014	9,207		10,697	10,697	(1,490)
Power Management Direct Cost to Prgrm	(1,446,134)					-
Energy Risk Management	259,585	21,336		17,000	17,000	4,336
Settlements	941,392	77,375		63,647	63,647	13,727
Integrated Systems Support	272,850	22,426		26,183	26,183	(3,757)
Participant Pass Through Costs	1,619,170					-
	17,116,874	1,341,274	-	1,290,626	1,290,626	50,648
	\$ 703,348,794	\$ 9,583,860	\$ 1,100,000	\$ 8,428,202	\$ 9,528,202	\$ 55,658
						\$ 13,104,845

Memorandum Only	
45 Days	
Working Capital	
\$	6,021,432
	4,232,722
	469,196
	1,077,886
	(1,051,805)
	138,449
	371,837
	6,768
	4,738
	249,419
	109,309
	104,568
	54,048
	752,969
	342,144
	54,100
	139,885
	365
	9,589
	13,810
	(178,290)
	32,004
	116,062
	33,639
	\$ 13,104,845

The FY 19 working capital of **\$9,583,860** represents approximately a 30 day requirement of the proposed budget, excluding the ISO. A 45 day requirement (1/8 of a year) is a utility standard rule of thumb and covers a 15th of the month billing for the previous month with 30 days to pay.

(A) Proposed amounts represent 30/365 of the FY19 budget. This was done to ensure that a minimum of 30 days working capital is maintained for each program.

(B) Represents specific contract amounts either billed directly to participants or advance billed through NCPA. No working capital considered necessary.

(C) Western energy, O&M and Restoration Fund requirements are billed on an estimated basis with payment generally required 15 to 30 days after month end. No working capital considered necessary.

(D) Market power purchase requirements are billed on an estimated basis with payment generally required 15 to 30 days after month end. The above proposed represents approximately 15 days working capital based on current budget purchase estimates.

(E) ISO costs are secured by SC Program Agreement required participant deposits. No additional working capital considered necessary.

(F) Judicial Action costs are primarily legal costs associated with Legislative, Regulatory and Pooling program issues. No additional working capital considered necessary.

(G) The project maintains a separate O&M Reserve to cover working capital requirements. See also PMOA schedule 5.0.

(H) Load Aggregation Costs - CAISO are offset by energy sales through ISO. No working capital considered necessary.

(I) GOR commitments cover Net GHG allowances. No working capital considered necessary.

Northern California Power Agency
Working Capital Deposit and FY 2019 Funding Requirement

Participant	Total Deposit On Hand	FY 2019 Budget Funding Requirement	Additional Requirement Charge (Refund)
Alameda	\$ 1,182,868	\$ 1,219,952	\$ 37,084
BART	242,346	164,776	(77,570)
Biggs	24,889	25,838	949
Gridley	32,744	36,136	3,392
Healdsburg	212,531	226,729	14,198
Lodi	1,217,951	1,203,894	(14,057)
Lompoc	300,876	306,775	5,899
Palo Alto	1,211,405	1,189,125	(22,280)
Plumas Sierra	141,348	146,010	4,662
Port of Oakland	45,880	50,365	4,485
Redding	34,010	35,132	1,122
Roseville	1,086,037	1,081,527	(4,510)
SVP	3,274,674	3,348,425	73,751
Shasta Lake	14,149	13,194	(955)
Truckee Donner	13,097	13,575	478
TID	179,328	192,454	13,126
Ukiah	314,069	329,953	15,884
	\$ 9,528,202	\$ 9,583,860	\$ 55,658



Approval of NCPA's Annual Budget Fiscal Year 2018-19

Monty Hanks
AGM Admin Svcs/CFO
April 26, 2018





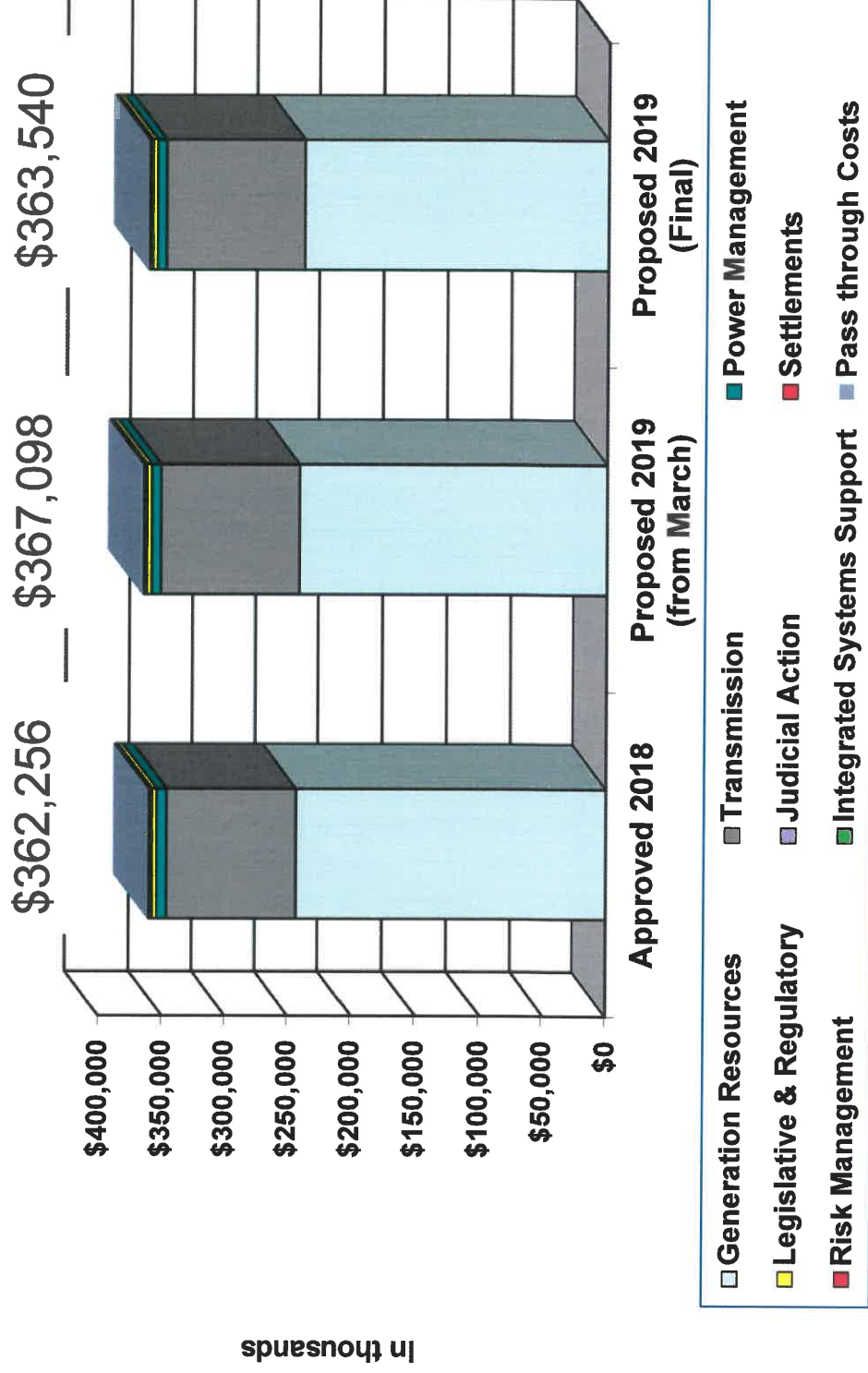
Vetting of the FY2018-19 Budget

Date	Meeting
October	Budget direction from UDs & Commission
January	Internal review with Randy
February 12 th	LEC PPC Review
February 13 th	Facilities Committee
February 21 st	L&R Committee
March 9 th	UD Retreat
March 12 th	LEC PPC Review
March 13 th	Facilities Committee
March 22 nd	Commission Meeting
April 9 th	LEC PPC (approval)
April 12 th	UD Meeting (final review)
April 26 th	Commission Meeting (adoption)



Proposed FY2018-19 Budget (Net)

Proposed FY 2019 Budget, net of revenues, reflects an increase of \$1.3 million or 0.35% from FY 2018, primarily from higher transmission costs due to increased generation.



Major changes from budget presented in March

- Hydro: ~\$1.5 million in reduced costs
 - Reduction of \$1.2m in Annual Cost (mainly d/s)
 - Increase of \$300k in interest income revenue
- Lodi Energy Center: ~\$1.7 million in reduced costs
 - Reduction of \$400k in Variable O&M (LTSA w/ Siemens)
 - Reduction of \$900k in collection of the Maintenance Reserve
 - Reduction of \$140k in A&G
 - Increase of \$300k in interest income revenue
- Geo, CT1, CT2 combined ~\$220k in reduced costs



NORTHERN CALIFORNIA POWER AGENCY





Commission Staff Report

Date: April 17, 2018

COMMISSION MEETING DATE: April 26, 2018

SUBJECT: Siemens Energy, Inc. – Change Order No. 1 to Long Term Maintenance Program Agreement; Applicable to the following projects: Lodi Energy Center

AGENDA CATEGORY: Discussion/Action

FROM:	Ken Speer <i>KS</i>	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Combustion Turbines	

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

RECOMMENDATION:

Approval of Resolution 18-29 authorizing the General Manager or his designee to execute Change Order No. 1 to the Long Term Maintenance Program Agreement with Siemens Energy, Inc., with any non-substantial changes recommended and approved by the NCPA General Counsel for use at the Lodi Energy Center facility.

BACKGROUND:

On September 13, 2010, NCPA entered into an agreement with Siemens Energy, Inc. for not-to exceed \$50,000,000.00, for long term maintenance support for the Lodi Energy Center.

On November 1, 2014, NCPA executed an Amended and Restated Long Term Maintenance Program Agreement with Siemens Energy, Inc. for the Lodi Energy Center. The change was related to the installation of upgraded parts, and also extended the contract through three major overhauls.

Change Order No. 1 will add additional scope related to rotor exchanges, steam turbine heating blanket, generator inspections, flex fire, and Energy Management consulting. This change order will also extend the sunset date from 2035 to 2041. In addition to the expanded scope, this change will increase the service intervals, resulting in a decrease in the unit price rate.

FISCAL IMPACT:

This Change Order No. 1 will add \$12,720,190 of work to the scope, and will save the members approximately \$990,362.00 per year due to a negotiated reduction in the unit price rate.

SELECTION PROCESS:

This vendor was originally selected as a result of Formal Bidding done in accordance with NCPA's procurement policies and procedures. In December 2008, NCPA sought bids for the Lodi Energy Center Power Island Project. NCPA received bids from General Electric and Siemens Energy, Inc. Both bids were deemed non-responsive and negotiations commenced with both companies. Siemens' evaluated bid price was lower than that of General Electric, and the Long Term Maintenance Program Agreement was included in the evaluation of the two bidders.

ENVIRONMENTAL ANALYSIS:

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

COMMITTEE REVIEW:

The recommendation above was reviewed by the Lodi Energy Center Project Participant Committee on April 9, 2018, and was approved.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. Howard" with a stylized flourish at the end.

RANDY S. HOWARD
General Manager

Attachments (3):

- Resolution
- Long Term Maintenance Program Agreement with Siemens Energy, Inc.
- Change Order No. 1 to Long Term Maintenance Program Agreement with Siemens Energy, Inc.

RESOLUTION 18-29

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY AUTHORIZING THE GENERAL MANAGER TO EXECUTE CHANGE ORDER NO. 1 TO LONG TERM MAINTENANCE PROGRAM AGREEMENT WITH SIEMENS ENERGY, INC.

(reference Staff Report #140:18)

WHEREAS, On September 13, 2010, Northern California Power Agency (NCPA) entered into an Agreement with Siemens Energy, Inc. (Siemens) for not-to-exceed \$50,000,000, for the long term maintenance program for the Lodi Energy Center (LEC); and

WHEREAS, On November 1, 2014, NCPA executed an Amended and Restated Long Term Maintenance Program Agreement with Siemens Energy, Inc. for the installation of upgraded parts and to extended the contract through 3 major overhauls; and

WHEREAS, NCPA seeks to enter into a Change Order No. 1 to add additional scope related to rotor exchanges, steam turbine heating blanket, generator inspections, flex fire, and Energy Management consulting, as well as extend the sunset date from 2035 to 2041, resulting in an increase in the service intervals and a decrease in the unit price rate; and

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

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to execute Change Order No. 1 to the Long Term Maintenance Program Agreement with Siemens Energy, Inc. with any non-substantial changes as approved by the NCPA General Counsel, for use at the Lodi Energy Center facility.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2018 by the following vote on roll call:

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

BOB LINGL
CHAIR

ATTEST:

CARY A. PADGETT
ASSISTANT SECRETARY

**AMENDED AND RESTATED PROGRAM PARTS, NON-PROGRAM PARTS,
MISCELLANEOUS HARDWARE, PROGRAM
MANAGEMENT SERVICES AND SCHEDULED OUTAGE SERVICES CONTRACT**

Between

NORTHERN CALIFORNIA POWER AGENCY

and

SIEMENS ENERGY, INC.

Dated as of November 1, 2014

LODI ENERGY CENTER PROJECT

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**AMENDED AND RESTATED PROGRAM PARTS, NON-PROGRAM PARTS,
MISCELLANEOUS HARDWARE, PROGRAM
MANAGEMENT SERVICES AND SCHEDULED OUTAGE SERVICES CONTRACT**

THIS AMENDED AND RESTATED PROGRAM PARTS, NON-PROGRAM PARTS, MISCELLANEOUS HARDWARE, PROGRAM MANAGEMENT SERVICES AND SCHEDULED OUTAGE SERVICES CONTRACT is entered into as of November 1, 2014 (the "Effective Date"), by and between NORTHERN CALIFORNIA POWER AGENCY, a Joint Powers Agency formed under the California's Joint Exercise of Powers Act pursuant to Government Code § 6500, et seq., ("Buyer"), and SIEMENS ENERGY, INC., a Delaware corporation ("Seller").

WHEREAS, Buyer has developed a power project located in Lodi, California (the "Project"); and

WHEREAS, in connection with the Project, Buyer and Seller entered into that certain Program Parts, Non-Program Parts, Miscellaneous Hardware, Scheduled Outage Services and Program Management Services dated as of September 13, 2010 and which the Parties wish to amend and restate in its entirety by this Contract all as more particularly described herein;

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

ARTICLE 1. DEFINITIONS; GENERAL REFERENCES

1.1 Defined Terms. The following terms shall have the following meanings when used in this Contract, unless the context requires otherwise:

"Baseline 12.5k Program Parts" means those Program Parts in Exhibit B of the type listed in the table titled "BASELINE 12.5k Program Parts Table.

"Basis Interval" has the meaning set forth in Exhibit A, Addendum 1A.

"Basis Scope" has the meaning set forth in Exhibit A, Addendum 1A.

"Buyer" has the meaning set forth in the Preamble. (Unless otherwise stated herein, the Buyer owns the plant ("Owner")).

"Calendar Year" means the period of time beginning on January 1st, 00:01 and concluding on December 31st, 24:00.

"Change" has the meaning set forth in Article 6.

"Change Order" means a change order to the Contract as mutually agreed by the Parties and issued in accordance with Article 6.

"Combustion Turbine" means the Project's one (1) SGT6-5000F combustion turbine.

"Combustion Turbine Interval Extension Program Parts" or "CIE" means those Program Parts in Exhibit B of the type listed in the table titled "Combustion Turbine Interval Extension Program Parts Table.

"Combustor Inspection Scheduled Outage" or "Combustor Scheduled Outage" means the type of Scheduled Outage and its associated Services as set forth in Addendum 1A of Exhibit A.

"Commercial Operation" shall mean when the Project or any Combustion Turbine is operated by Buyer, or any agent, contractor, lessee, assignee or affiliate of Buyer or the Owner of the Project for commercial purposes.

"Contract" means this Amended and Restated Program Parts, Non-Program Parts, Miscellaneous Hardware, Program Management Services and Scheduled Outage Services Contract, including all Exhibits hereto, as amended from time to time.

"Contract Price" has the meaning set forth in Section 4.1.

"Covered Work" has the meaning set forth in Exhibit J.

"Day" means a calendar day.

"Delayed Payment Rate" means a rate of interest per annum equal to ten percent (but not to exceed ten percent (10%)) or the maximum rate permitted by applicable Law, whichever is less.

"Delivery" has the meaning set forth in Article 7.

"Disputed Documents" has the meaning set for in Section 16.1.2.

"Dollar(s)" or "\$" means the lawful currency of the United States.

"Effective Date" means the date set forth in the opening paragraph of this Contract.

"Equivalent Base Hours" or "EBH" means the calculated result of equivalent base hours determined in accordance with Exhibit D, Service Bulletin 55004 as amended from time to time by Seller.

"Equivalent Starts" or "ES" means the calculated result of equivalent starts determined in accordance with Exhibit D, Service Bulletin 55004 as amended from time to time by Seller.

"Escalation Factor" means the net percentage increase or decrease (as the case may be) in the U.S. Consumer Price Index – Urban CUUR0000SA0 over the period from the published value for January 2010 ("Base Value") through the value as of the date of the invoice utilizing the most current escalation data that is released at the time such invoice is issued. If such index ceases to be published then such similar substitute index as is mutually agreed to by the Parties, shall apply. All payments to Seller of Fees shall be in U.S. Dollars, escalated at the time of invoice according to the Escalation Factor. All Fees are subject to the Escalation Factor calculated from the Base Value. With each invoice, Seller shall provide to Buyer the Escalation Factor applicable for such invoice. The Escalation Factor shall be calculated by the following formula:

Escalation Factor = $1 + ((X - \text{Base Value}) / \text{Base Value})$, where X is the lesser of:
(a) the latest month's U.S. Consumer Price Index-Urban (CUUR0000SA0) at the time such invoice is issued or (b) the Escalation Factor Cap.

"Escalation Factor Cap" means the net total allowable increase in the U.S. Consumer Price Index – Urban (CUUR0000SA0) over the period from the Base Value through the date of the applicable invoice during the Term. The Escalation Factor Cap shall be calculated by the following formula:

Escalation Factor Cap = the greater of:

(a) $\text{Base Value} * (1.04)^{(n/12)}$, where n = number of months from the base date of January 2010 to the date of invoice, or

(b) the latest month's value for the U.S. Consumer Price Index-Urban (CUUR0000SA0) at the time such invoice is issued * 0.95.

"Exhaust Components" means the following components: single piece exhaust cylinder, exhaust spacer piece transition, exhaust manifold, and exhaust expansion joint.

"Exhaust Components Warranty" has the meaning set forth in Section 8.7.

"Fee" or "Fees" means the payment amount calculated pursuant to the rates listed in Exhibit E, Payment Schedule.

"First Fire" means the date on which a Combustion Turbine has experienced combustion for the first time after initial installation.

"Fixed Annual Fee" has the meaning set forth in Exhibit E, Payment Schedule.

"Flex Interval" has the meaning set forth in Exhibit A, Addendum 1A.

"Flex Scope" has the meaning set forth in Exhibit A, Addendum 1A.

"Force Majeure" has the meaning set forth in Section 15.1 of this Contract.

"Government Authority" has the meaning set forth in Section 16.1.2.

"Hot Gas Path Inspection Scheduled Outage" or "Hot Gas Path Scheduled Outage" means the type of Scheduled Outage and its associated Services as set forth in Addendum 1A of Exhibit A.

"Laws" means the laws applicable to the performance of this Contract, and includes statutes, rules, regulations, orders and ordinances or specified standards or objective criteria contained in any applicable license, permit or approval, or other legislative or administrative act, of the United States of America or any state of the United States, agency, department, authority, political subdivision or other instrumentality thereof, or a decree, judgment or order of a court, including but not limited to those governing wages, hours, employment discrimination and safety, laws regarding workers' compensation, disability laws and employee benefit laws.

"Major Inspection Scheduled Outage" or "Major Scheduled Outage" means the type of Scheduled Outage and its associated Services as set forth in Addendum 1A of Exhibit A.

"Miscellaneous Hardware" means miscellaneous hardware items such as pins, springs, studs, gaskets, tie wires, fasteners, screws, washers, nuts or bolts which are required to roll out and roll in the Program Parts during a Scheduled Outage which is supplied by Seller during a Scheduled Outage under this Contract or in accordance with a Change Order hereto, issued pursuant to Article 6, Changes.

"Miscellaneous Hardware and Non-Program Part Warranty" has the meaning set forth in Section 8.2.

"Normal Carriage" has the meaning set forth in Section 7.3.2, Normal Carriage.

"Non-Program Part(s)" means all parts and components of a Combustion Turbine other than Program Parts, Miscellaneous Hardware and all instrumentation, control devices and wiring maintained by Buyer; *provided* that such parts or components are located on or inside of the applicable Combustion Turbine within the following boundaries: (a) from the Combustion Turbine side of the inlet bellmouth flange to and including (b) the Combustion Turbine side of the exhaust cylinder and (c) the Combustion Turbine side of all flanges and/or connections located directly on the Combustion Turbine proper which may be purchased by Buyer and supplied by Seller hereunder pursuant to a Change Order.

"Normal Wear and Tear" means the wear and tear incurred by the Program Parts as a result of operation and maintenance of the Combustion Turbine by Buyer in accordance with (i) Buyer's obligations specified in Exhibit A, Scope of Work Description and (ii) the warranty conditions specified in Section 8.4 below. Normal wear and tear expressly excludes any secondary/up or down stream/up or down flow damage caused by the failure of some other item, piece, part or equipment up or down stream/up or down flow.

"Original Equipment Supply Contract ("OESC")" means the contract for supply of the one (1) SGT6-5000F Combustion Turbine, and one (1) Steam Turbine between Siemens Energy, Inc. and Northern California Power Agency dated May 6, 2009.

"Parties" means Buyer and Seller.

"Party" means Buyer or Seller as applicable.

"Period" means the interval from the completion of one Scheduled Outage of the Combustion Turbine or the Steam Turbine through the completion of the next Scheduled Outage of such Combustion Turbine or Steam Turbine, per Exhibit C Projected Scheduled Outage Plan. For the purpose of this definition, the initial period shall begin on the date of First Fire of the Combustion Turbine.

"Price List" means the price quoted by Seller pursuant to this Contract, as amended from time to time by Seller.

"Program Initialization Fee" has the meaning set forth in Exhibit E, Payment Schedule.

"Program Management Services" means all of the services associated with Combustion Turbine or Steam Turbine maintenance program to be provided by Seller hereunder during the Term, as described in Exhibit A, Scope of Work Description.

"Program Part(s)" means the type of part(s) of the Combustion Turbine that are listed in Exhibit B, Program Parts List plus the equivalent parts to those listed in Exhibit B, Program Parts List, which were included in the original Combustion Turbine once the warranty for those equivalent parts under the OESC has expired.

"Program Parts Term Warranty" has the meaning given in Section 8.1.

"Project" has the meaning set forth in the Preamble.

"Project Financing Close" means Buyer's written notice to Seller that Buyer has successfully acquired financing for the Project.

"Remote Monitor System" has the meaning set forth in Exhibit K, Remote Monitor System.

"Scheduled Outage" means a planned outage of the Combustion Turbine or the Steam Turbine, each as applicable, to perform the applicable Scheduled Outage Services described in Exhibit A, Scope of Work Description.

"Scheduled Outage Services" means all of the services to be provided by Seller hereunder during the applicable Scheduled Outage, as described in Exhibit A, Scope of Work Description.

"Scheduled Outage TFA Services" means all of the TFA Services to be provided by Seller hereunder during the applicable Scheduled Outage.

"Scheduled Outage Technical Field Specialist Services" means all of the Technical Field Specialist Services to be provided by Seller hereunder during the applicable Scheduled Outage.

"Seller" has the meaning set forth in the Preamble.

"Serviceable Program Part" means, with respect to a Program Part, that such Program Part is suitable for operation in the Combustion Turbine until such Program Part's next Scheduled Outage.

"Services" means any and all services to be provided by Seller under this Contract including but not limited to Scheduled Outage TFA Services, Scheduled Outage Technical Field Specialist Services, Scheduled Outage Services, Program Management Services and any services performed in accordance with a Change Order hereto issued pursuant to Article 6, Changes.

"Services Warranty" has the meaning given in Section 8.3.

"SGSC" has the meaning set forth in Section 16.2.

"Site" means the real property located in Lodi, California, on which the Project is to be or has been constructed.

"Steam Turbine" means the Project's one (1) steam turbine.

"Steam Turbine Annual Safety Inspection" means the type of Scheduled Outage and its associated Services as set forth in Addendum 1B of Exhibit A.

"Steam Turbine Limited Overhaul" means the type of Scheduled Outage and its associated Services as set forth in Addendum 1B of Exhibit A.

"Steam Turbine Major Overhaul" means the type of Scheduled Outage and its associated Services as set forth in Addendum 1B of Exhibit A.

"Subcontractor(s)" shall mean any licensor, subcontractor or supplier of any tier supplying material, equipment, labor, goods or services directly to Seller in connection with its obligations under the Contract.

"Sunset Date" has the meaning given in Section 5.1.

"Technical Field Specialist Services" means the Combustion Turbine or Steam Turbine disassembly, field inspection, field welding and reassembly services provided by a technical field specialist of Seller on the Combustion Turbine or Steam Turbine.

"Term" has the meaning given in Section 5.1.

"TFA Services" or "Technical Field Assistance Services" means the advice and consultation given to Buyer's personnel by a technical field assistance service representative of Seller with respect to:

- (i) installation, inspection, repair and maintenance activities performed by others at the Site, and
- (ii) any Seller recommended quality assurance procedures for activities performed at the Site.

TFA Services does not include management, supervision or regulation of Buyer's personnel, agents and contractors.

"Unscheduled Outage" means any outage of a Combustion Turbine or Steam Turbine other than a Scheduled Outage per Exhibit C, Projected Scheduled Outage Plan.

"Variable Fee" has the meaning set forth in Exhibit E, Payment Schedule.

1.2 General References. As used in this Contract, the terms "herein," "herewith" and "hereof" are references to this Contract, taken as a whole, the term "includes" or "including" shall mean "including, without limitation," and references to a "Section," "subsection," "clause," "Article" or "Exhibit" shall mean a Section, subsection, clause, Article or Exhibit of this Contract, as the case may be, unless in any such case the context requires otherwise. The singular shall include the plural and the masculine shall include the feminine and neuter, and vice versa.

ARTICLE 2. CONTRACT DOCUMENTS

2.1 Contract Documents. This Contract consists of this contract document itself and the following Exhibits which are specifically made a part hereof by reference:

Exhibit A	-	Scope of Work Description
Exhibit B	-	Combustion Turbine Program Parts List
Exhibit C	-	Projected Scheduled Outage Plan
Exhibit D	-	Service Bulletin 55004
Exhibit E	-	Payment Schedule
Exhibit F	-	Not Used
Exhibit G	-	Cancellation Schedule
Exhibit H	-	Change Order Format
Exhibit I	-	Natural Gas, Fuel Oil and Water Specifications
Exhibit J	-	Maintenance Labor Agreement (MLA)
Exhibit K	-	Remote Monitor System

2.2 Conflicting Provisions. This Contract document and the Exhibits are intended to be interpreted consistently to the maximum extent possible. In the event of any conflict between this document and any Exhibit hereto, the terms and provisions of this document, as amended from time to time, shall control. In the event of any conflict among the Exhibits, the following order of precedence shall govern: Exhibit G, E, A, J, B, C, D, I, K and H. Subject to the foregoing, the several instruments forming part of this Contract are to be taken as mutually explanatory of one another and in the case of ambiguities or discrepancies within or between such parts the same shall be explained and adjusted by the mutual agreement of the Parties.

ARTICLE 3. SCOPE OF WORK

3.1 Seller's Scope. During the Term, Seller shall fulfill its workscope obligations specified in Exhibit A, Scope of Work Description, and shall supply any equipment, Program Parts, Non-Program Parts, Miscellaneous Hardware, Exhaust Components or Services mutually agreed to by the Parties and specified in a Change Order issued pursuant to Article 6, Changes.

3.2 Buyer's Scope. During the Term, Buyer shall fulfill its workscope obligations specified in Exhibit A, Scope of Work Description, and shall perform any other workscope obligations mutually agreed to by the Parties and specified in a Change Order issued pursuant to Article 6, Changes.

ARTICLE 4. CONTRACT PRICE AND PAYMENT TERMS

4.1 Contract Price. In consideration of the Program Parts, Non-Program Parts, Miscellaneous Hardware and Services provided by Seller, Buyer will pay to Seller the Fees as adjusted either up or down by the Escalation Factor at the time of each invoice. The "Contract Price" shall be the aggregate total of the Fees as adjusted plus any additional payment amount mutually agreed to by the Parties pursuant to a Change Order hereto.

4.2 Taxes. The Contract Price does not include any federal, state, or local property, license, privilege, sales, use, excise, value added, gross receipts, or similar taxes now or hereafter applicable to, measured by, or imposed upon or with respect to the transaction, the property, its sale, its value or its use, or any services performed in connection therewith. Buyer agrees to pay or reimburse Seller for any such taxes levied by the United States of America, the State of California, or other United States local political subdivision, which Seller or its Subcontractors are required to pay, except Seller will be responsible for its own federal and state income taxes as well as taxes on its own payroll. Should Buyer be exempted from any such tax, it shall

provide Seller with certification thereof within thirty (30) Days after the Effective Date or at the time the exemption is obtained, whichever first occurs. In the event of an audit by a taxing authority, the Parties shall cooperate with each other and disclose necessary documentation, subject to the provisions of Article 16, as required by the taxing authority in conjunction with the audit.

4.3 Invoices. Per Exhibit E, Payment Schedule, Seller shall furnish Buyer an invoice indicating the Fee being invoiced, as adjusted up or down by the Escalation Factor at the time of such invoice.

4.4 Payment. Within thirty (30) Days following the date Buyer receives each invoice under Section 4.3, Buyer shall pay to Seller the undisputed amount of the invoice. All payments to Seller shall be made by electronic transfer of funds to the account of the Seller at Mellon Bank, N. A. Account Number 038-0269, ABA No. 043000261, or such other depository as Seller shall designate by written notice to Buyer.

4.5 Notice of Payment Disputes. If prior to the expiration of the applicable period for payment referenced in Section 4.4, Buyer disputes any amount invoiced by Seller on the basis that any Program Parts, Miscellaneous Hardware or Scheduled Outage Services have not been provided in accordance with this Contract, then Buyer shall, prior to the expiration of such period, provide Seller with written notice identifying the basis for and precise amount of such dispute. Thereafter, the payment of any such genuinely disputed amounts may be deferred until such dispute has been resolved to the satisfaction of Buyer and Seller. Any dispute which is not resolved by mutual agreement shall be resolved in accordance with Section 16.4.

4.6 Late Payments. Any past due amounts shall, without prejudice to Seller's right to payment when due, bear interest at the Delayed Payment Rate beginning upon the Day following the date payment is due. If there is a dispute about any amount invoiced by Seller, the amount not in dispute shall be promptly paid as described in this Article 4, and any disputed amount which is ultimately determined to have been payable prior to the actual date of payment shall be paid with interest, at the Delayed Payment Rate, from the date due to the date of payment.

ARTICLE 5. TERM AND OUTAGES

5.1 Term. The Term of the Contract shall commence on the Effective Date and unless terminated early pursuant to Article 12, shall expire upon the earlier of:

- (i) the date the Combustion Turbine completes the third Major Scheduled Outage under the Contract, or
- (ii) the date that is November 1, 2035 ("Sunset Date").

5.2 Unscheduled Outage. If, during the Term, an Unscheduled Outage occurs, then Buyer shall, pursuant to a Change Order, hire Seller to supply any Program Parts, Non-Program Parts, Miscellaneous Hardware, TFA Service work, Technical Field Specialist Service work and/or Services on the Combustion Turbine and Steam Turbine required for such Unscheduled Outage, and Seller shall supply same to the extent not covered by Seller's warranties contained in Article 8 of this Contract, at the prices specified in Seller's then current domestic Price List(s)

in effect at the time of supply or performance or in Seller's price quote at the time of supply or performance for elements not included in Seller's domestic Price List(s).

5.3 Unscheduled Outage Work. Seller shall be entitled to a Change Order for any additional Program Parts, Non-Program Parts, Miscellaneous Hardware, TFA Service work, Technical Field Specialist Service work and/or Services on the Combustion Turbine and Steam Turbine pursuant to Section 5.2 above in accordance with Article 6. In addition, Buyer shall give Seller the opportunity to perform, at Seller's expense, a root cause analysis of the Unscheduled Outage. In the case of an Unscheduled Outage, Seller, upon notification from Buyer via a Change Order, agrees to take prompt action(s) to mobilize its service personnel to the Site to provide the Services requested in such Change Order, and agrees to provide any Program Parts, Non-Program Parts or Miscellaneous Hardware specified in such Change Order, as soon as reasonably practicable, to minimize downtime.

5.4 Seller's Responsibility for Access to Warranty Non-Conformities and Damage to Buyer's Property.

5.4.1 Subject to the provisions stated in this Section 5.4 below, if a Program Part, an item of Miscellaneous Hardware or a Service provided by Seller pursuant to this Contract fails to conform to the corresponding Program Parts Term Warranty stated in Section 8.1, the Miscellaneous Hardware and Non-Program Part Warranty stated in Section 8.2 or the Services Warranty stated in Section 8.3, then for each such event Seller shall credit Buyer for the actual direct costs incurred by Buyer for the following:

- (i) Seller's uncovering, gaining access to, removing and replacing the Program Part, Miscellaneous Hardware or Service, including disassembly and reassembly of the Combustion Turbine or Steam Turbine that does not conform to its respective warranty as set forth in Section 8, Warranties, to the extent that Seller provided such uncovering, gaining access to, removal and replacement of the non-conforming Program Part, item of Miscellaneous Hardware or such Services hereunder and
- (ii) sudden and accidental damage to Buyer's property to the extent that such property damage was caused by the failure of a Program Part, an item of Miscellaneous Hardware or a Service to conform to its respective warranty as set forth in Article 8, Warranties.

Seller's obligations under this Section 5.4 shall be limited on a per event basis to the lesser of:

- (a) the actual direct cost incurred by Buyer to repair the property damage including uncovering, gaining access to, removal and replacement costs, to be substantiated to the reasonable satisfaction of Seller, or
- (b) an amount of one million Dollars (U.S. \$1,000,000).

Seller's obligations under this Section 5.4 shall be limited to an aggregate financial limitation of two million Dollars (U.S. \$2,000,000) for all such events occurring within each Calendar Year and a total aggregate financial limitation of nine million Dollars (\$9,000,000) for all such events occurring during the Contract's Term.

- 5.4.2 As a condition precedent to Seller's performance of its obligations under this Section 5.4, (i) Buyer will be responsible for performing the obligations equivalent to that which would be required of Buyer pursuant to Exhibit A, Addendum 2A, Combustion Turbine Scheduled Outage Division of Responsibilities and Addendum 2B, Steam Turbine Scheduled Outage Division of Responsibilities, and (ii) the Parties shall enter into a Change Order pursuant to which Buyer shall purchase and Seller shall provide all labor, parts, repairs and materials required for the repair of the related property damage necessary to return the applicable Combustion Turbine or Steam Turbine to an operable condition. Seller's obligations under Section 5.4, shall not apply to any liabilities arising out of or related to events or circumstances occurring after either the expiration of the Contract's Term or the termination of the Contract, whichever occurs first.
- 5.4.3 If Buyer has property damage insurance, it shall obtain waivers of rights of subrogation from its property damage insurer(s) against Seller. If any such waiver of subrogation is not obtained by Buyer, Buyer shall defend, indemnify and hold Seller and its affiliates harmless in and from any claim or proceeding by Buyer's insurer(s) seeking subrogation which should have been waived.
- 5.4.4 The crediting of the amounts by Seller to Buyer as set forth in this Section 5.4 shall be Buyer's sole and exclusive remedy for damage to Buyer's Property and access to warranty non-conformities including uncovering, gaining access to, removing and replacing the Program Part, Miscellaneous Hardware or Service, including disassembly and reassembly of the Combustion Turbine and Steam Turbine whether claims of the Buyer are based in contract, in tort (including negligence and strict liability) or otherwise. Such amounts due Buyer by Seller pursuant to this Section 5.4 shall be effected by a credit to Buyer's account toward payments due under this Contract.

ARTICLE 6. CHANGES

6.1 Request For Changes. Buyer or Seller may request changes within the scope of the Contract and if accepted by the other Party the price, performance, schedule, and other pertinent provisions of the Contract will be adjusted by mutual agreement of the Parties and documented in a written "Change Order" prior to implementation of the "Change". The format for Change Orders is listed in Exhibit H, Change Order Format.

6.2 Adjustment. Additional expenses incurred and time spent by Seller due to (i) delays, other than delays within the reasonable control of Seller, and (ii) changes in applicable Laws and requirements after the Effective Date of the Contract, as applicable, will be treated as changes to the scope of work and the Contract will be adjusted as set forth in the previous paragraph.

6.3 No Additional Compensation Changes. Seller may make a change(s) in its Program Parts and Miscellaneous Hardware, or Services supplied hereunder without additional compensation from Buyer if such change(s) does not adversely affect the warranties or performance of any Scheduled Outage.

6.4 Minimum Operating Requirements. The basis of this Contract is that the Combustion Turbine shall be operated at (a) no less than four thousand (4,000) Equivalent Base Hours per Calendar Year and (b) no less than two hundred fifty (250) Equivalent Starts per Calendar Year. Should the actual operations differ from these operating parameters then the Seller shall be

entitled to adjustment in its scope, schedule and price to address such differences pursuant to a Change Order.

6.5 Changes in Program Parts. To the extent that Seller makes changes in style or configuration of any Program Parts and the style numbers of such Program Parts, as originally supplied at the inception of this Contract, are no longer made available for sale by Seller, such changed or re-configured Program Parts shall be made available to Buyer in their normal replacement sequence, without additional charge, during the Term of this Contract. However, if both the originally supplied Program Part and a changed or reconfigured Program Part are made available by Seller, then Buyer shall receive the original styles without additional charge, or at its option, Buyer may elect to use any upgraded styles available at an additional price to be mutually agreed upon by the Parties.

6.6 Allowance for Certain Extra Work. If Buyer and Seller agree pursuant to a Change Order that in connection with a Scheduled Outage Seller will perform additional work that is not included in Seller's Scheduled Outage workscope pursuant to Addendum 1A of Exhibit A, then Seller shall bear without charge to Buyer, the following: (a) the first seventy five thousand Dollars (U.S. \$75,000.00) of price for additional work purchased from Seller related to a Combustor Inspection Scheduled Outage, (b) the first one hundred thousand Dollars (U.S. \$100,000.00) of price for additional work purchased from Seller related to a Hot Gas Path Inspection Scheduled Outage, and (c) the first one hundred twenty five thousand Dollars (U.S. \$125,000.00) of price for additional work purchased from Seller related to a Major Inspection Scheduled Outage. After completion of the second Major Scheduled Outage, for each subsequent Scheduled Outage remaining during the Term of the Contract, such amounts will be escalated from the completion date of the second Major Scheduled Outage, calculated the same as the Escalation Factor but using the completion date of the second Major Scheduled Outage as the base value."

6.7 Exhaust Cylinder and Manifold Replacement.

6.7.1 Components. If Buyer elects to purchase replacements for the Combustion Turbine's exhaust cylinder or exhaust manifold during the Term, then Buyer may purchase such components from Seller pursuant to a Change Order at the prices specified in Seller's then current domestic Price List(s) in effect at the time of supply with a twenty percent (20%) discount applied. In addition to such discounts, and provided that the applicable allowance set forth in Section 6.6 above has not been exhausted, Buyer may apply any remaining balance from the extra work allowance toward the replacement price for such exhaust cylinder or exhaust manifold.

6.7.2 Services. Buyer may elect, pursuant to a Change Order, to hire Seller to install such Exhaust Components at the prices specified in Seller's then current domestic Price List(s) in effect at the time of performance or in Seller's price quote at the time of performance for elements not included in Seller's domestic Price List(s). The Parties agree that such installation shall be covered by, and subject to, the provision of Section 8.3, Services Warranty.

ARTICLE 7. DELIVERY, TITLE, RISK OF LOSS AND TRANSPORTATION

7.1 Program Parts, Non-Program Parts, Miscellaneous Hardware or Exhaust Components. Delivery of each Program Part, Non-Program Part, item of Miscellaneous Hardware or Exhaust Component supplied under this Contract shall be made when the transporting conveyance

comes to a rest at the place of unloading at the delivery point ("Delivery"). The delivery point shall be to the Site, the area on the Site or adjacent laydown area designated by Buyer. If a scheduled Delivery cannot be accommodated by Buyer, then Delivery will be made to a Buyer-designated storage facility and Buyer shall be responsible for all storage costs. Buyer shall be responsible for unloading the cargo from the transporting conveyance upon Delivery.

7.2 Title and Risk of Loss. In the case of Section 7.1, risk of loss or damage shall pass from Seller to Buyer upon Delivery. Legal and equitable title to Non-Program Parts and Exhaust Components shall pass from Seller to Buyer upon Delivery. Legal and equitable title to Program Parts and Miscellaneous Hardware shall pass from Seller to Buyer upon installation into the Combustion Turbine. Upon removal of Program Parts from a Combustion Turbine, transfer of title and risk of loss of such Program Parts shall be as specified in Section 8.1.

7.3 Transportation

7.3.1 Transportation and Storage. When Program Parts, Non-Program Parts or Miscellaneous Hardware are ready for shipment, Seller will (i) in the absence of shipping instructions, inform Buyer of pending shipment and Buyer will thereafter promptly give shipping instructions to Seller, (ii) determine the method of transportation and the routing of the shipment and (iii) ship the Program Parts, Non-Program Parts or Miscellaneous Hardware freight prepaid and included in the price by Normal Carriage to the Site.

7.3.2 Normal Carriage. Normal Carriage means carriage by either highway transport (provided this does not necessitate use of specialized riggers trailers) or by rail transport on normal routing from the manufacturing/repair facility to the Site as designated in Section 7.1, above.

7.3.3 Special Transportation and Services. Buyer agrees to pay for, or to reimburse, in accordance with the Change Order provisions set forth in Article 6 of the Contract, any verifiable and substantiated transportation charges incurred by Seller in excess of those for Normal Carriage due to changes in the existing transportation conditions, which changes may include without limitation, the construction and repair of transportation and handling facilities, bridges and roadways, excess charges for special routing, special trains, special vessels, specialized riggers trailers, demurrage and air transport. Seller agrees to use all reasonable efforts to minimize such excess transportation charges. Additional transportation costs and impacts on Delivery or other times in connection with performance of the work, if any, shall be submitted to Buyer or Seller, each as applicable and processed through the Change Order process.

ARTICLE 8. WARRANTIES

8.1 Program Parts Term Warranty and Exclusive Remedy. Seller warrants that each Program Part and Miscellaneous Hardware used to affix a Program Part supplied or warranted hereunder, including any Program Part that is (i) included in the original Combustion Turbine once the warranty for those equivalent Program Parts under the OESC has expired or (ii) repaired or provided as a replacement pursuant to this warranty, will not require repair or replacement (other than for Scheduled Outage maintenance and associated Program Part and Miscellaneous Hardware maintenance) due to defects in material or workmanship of such Program Part or of such Miscellaneous Hardware used to affix a Program Part or due to Normal

Wear and Tear from the date supplied until the end of the Term (the "Program Parts Term Warranty"). If prior to the end of the Term, a Program Part or an item of Miscellaneous Hardware used to affix a Program Part fails to conform to the above warranty and Seller is notified in writing by Buyer of the failure, Seller shall, at its option and as its exclusive warranty obligation either (i) repair the non-conforming Program Part or at Seller's expense (ii) provide a replacement Serviceable Program Part for the non-conforming Program Part or provide replacement Miscellaneous Hardware for the non-conforming Miscellaneous Hardware (Seller shall provide unencumbered title to Buyer for all Program Parts and Miscellaneous Hardware furnished under this Contract). Unless Seller elects otherwise, if a replacement Program Part is provided under this warranty or during either a Scheduled Outage or Unscheduled Outage, then title to, possessory right to, and risk of loss to such replaced Program Part shall transfer from the Buyer to Seller upon such Program Part's replacement and the Parties hereby agree that such Program Part shall be scrap with a deemed value of \$0. Furthermore, unless Seller elects otherwise, Buyer shall waive any and all liens/security interests with respect to such Program Part, shall do everything necessary to effectuate such waiver, and shall indemnify Seller against any loss or damage Seller may incur as a result of any liens/security interests being asserted against such Program Part.

8.2 Miscellaneous Hardware and Non-Program Part Warranty and Exclusive Remedy. Seller warrants that the Miscellaneous Hardware not otherwise covered under the Program Parts Term Warranty and Non-Program Parts provided to Buyer hereunder, including any item of Miscellaneous Hardware or Non-Program Part repaired or provided as a replacement by Seller under this Miscellaneous Hardware and Non-Program Part Warranty, will be free of defects in workmanship and materials until the earlier of:

- (i) one (1) year from the date of installation of the original item of Miscellaneous Hardware or original Non-Program Part, as applicable, into the Combustion Turbine;
- (ii) four hundred (400) Equivalent Starts after installation of the original item of Miscellaneous Hardware or original Non-Program Part, as applicable, into the Combustion Turbine;
- (iii) eight thousand (8,000) Equivalent Base Hours after installation of the original item of Miscellaneous Hardware or original Non-Program Part, as applicable, into the Combustion Turbine; or
- (iv) one (1) year from the date of Delivery of the original item of Miscellaneous Hardware or original Non-Program Part, as applicable;

except that the warranties on all Miscellaneous Hardware and Non-Program Parts shall expire no later than the earlier of either the termination of the Contract or the conclusion of the Term of the Contract, (the "Miscellaneous Hardware and Non-Program Part Warranty"). In no event shall a re-warranty of a Non-Program Part or an item of Miscellaneous Hardware extend beyond the original warranty period for such Non-Program Part or item of Miscellaneous Hardware. If during the Miscellaneous Hardware and Non-Program Part Warranty period, an item of Miscellaneous Hardware or a Non-Program Part fails to conform to the Miscellaneous Hardware and Non-Program Part Warranty and Seller is promptly notified in writing by Buyer of the failure, Seller shall, at its option and as its exclusive warranty liability, either (i) repair the non-conforming Miscellaneous Hardware or non-conforming Non-Program Part or at Seller's expense (ii) provide a replacement for the non-conforming Miscellaneous Hardware or non-conforming Non-Program Part.

8.3 Services Warranty and Exclusive Remedy. Seller warrants for each item of Services provided hereunder that (i) the engineering services of its personnel will be competent and consistent with prudent engineering practices, (ii) the technical information, reports, analyses and recommendations transmitted by Seller in connection therewith will be competent and consistent with prudent engineering practices, and (iii) the Services will be free from defects in the workmanship for a period of one (1) year from the date of completion of that item of Services; except that the warranties on Services shall expire no later than the earlier of either one (1) year after the termination of the Contract or the conclusion of the Term of the Contract, (the "Services Warranty"). In no event shall a re-warranty of a Service extend beyond the original warranty period for such Service. If during the Services Warranty period any portion of the Service fails to conform to the Services Warranty and Seller is promptly notified in writing thereof, Buyer's sole remedy shall consist of Seller's reperformance of such nonconforming portion of the Services.

8.4 Warranty Conditions. The warranties and remedies set forth herein are conditioned upon:

- (1) Buyer's receipt, handling, storage, operations and maintenance during any storage, operation and maintenance, including tasks incident thereto, of the Project, including any Program Parts, Non-Program Parts, Exhaust Components and Miscellaneous Hardware, shall be in all material respects in accordance with the terms of the Combustion Turbine and Steam Turbine instruction manuals, Exhibit D Service Bulletin 55004 Seller's written instructions provided to Buyer, the operating criteria provided to Buyer by the original equipment manufacturer and in general accordance with independent power industry practices.
- (2) the Combustion Turbine shall have been operated using natural gas, fuel oil and water consistent with the requirements specified in Exhibit I, Natural Gas, Fuel Oil and Water Specifications and neither the Combustion Turbine nor the Steam Turbine shall have been subject to alteration, abuse or misuse;
- (3) any accidental damage to the Combustion Turbine or Steam Turbine shall be repaired consistent with the original equipment manufacturer's reasonable recommendations,
- (4) the Buyer, without expense to Seller:
 - (a) providing working access to the non-conforming Program Parts, Non-Program Parts, Miscellaneous Hardware or Services, except as provided for and subject to the financial limitations set forth in Section 5.4, including disassembly and reassembly of the Combustion Turbine or Steam Turbine;
 - (b) bearing the expense of, and paying as and when due Seller's invoices for amounts in excess of those amounts for which Seller provides a credit as set forth in Section 5.4 above. Monitoring and calculation of the foregoing amount shall be based upon Seller's then current prices for which Seller would normally charge a customer for Seller's performance of such activity;

- (c) providing reasonable access to the Project and operating and maintenance data, including but not limited to continuous access to the control system and associated data for monitoring purposes;
- (d) making its Site facilities and Site operators available to assist Seller in the performance of its warranty obligations, to the extent they are reasonably available; and
- (e) hiring Seller to provide (i) labor, parts, repairs and materials required to remove the Combustion Turbine casing and to repair, and install or replace the Program Parts, Non-Program Parts, Exhaust Components or Miscellaneous Hardware in the Combustion Turbine after it has been disassembled, (ii) labor and repairs required for the Steam Turbine,

and

- (5) Buyer will maintain and operate the Steam Turbine in accordance with the original equipment manufacturer's recommendations.

8.5 Exclusivity of Warranties and Remedies. THE WARRANTIES/GUARANTEES SET FORTH IN THIS ARTICLE ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES/GUARANTEES WHETHER STATUTORY, EXPRESS, OR IMPLIED (INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE). The remedies set forth in this Article by correction of non-conformities in the manner and for the period of time provided shall constitute Seller's sole liability and Buyer's exclusive remedies for failure of Seller to meet its warranty or guarantee obligations whether claims of the Buyer are based in contract, in tort (including negligence and strict liability), or otherwise.

8.6 Warranty Liabilities. In the event that physical loss of or damage to Buyer's property results from the failure of (i) a Program Part to comply with the Program Parts Term Warranty per Section 8.1, (ii) Miscellaneous Hardware to comply with the applicable provisions of the Program Parts Term Warranty per Section 8.1 or the Miscellaneous Hardware and Non-Program Part Warranty per Section 8.2, (iii) a Non-Program Part provided hereunder to comply with the Miscellaneous Hardware and Non-Program Part Warranty per Section 8.2, (iv) a Service to comply with the Services Warranty per Section 8.3 or (v) or an Exhaust Component to comply with the Exhaust Components Warranty per Section 8.7, Seller's liability under the terms of such respective warranties shall not exceed the cost of performing the warranty remedy, either by repair, modification, re-performance, or replacement, which Seller would have had to perform if such warranty remedy had been completed immediately prior to the occurrence of the resultant physical loss or damage. In no event shall Seller have liability under this Article 8 for physical loss or damage to Buyer's property that results from the failure to comply with the warranties under this Article 8. Seller's responsibility for any such resultant physical loss or damage shall be exclusively as set out in Section 5.4 above.

8.7 Exhaust Components Warranty and Exclusive Remedy. Seller warrants that new Exhaust Components provided to Buyer pursuant to Section 6.7.1, including any Exhaust Components repaired or provided as a replacement by Seller pursuant to this warranty, will be free of defects in workmanship and materials until the earlier of (i) twelve (12) months from the date of Delivery of the original Exhaust Component item or (ii) for a period of twelve (12)

months from the date of installation of the original Exhaust Component; except that the warranties on all Exhaust Components shall expire no later than the earlier of either the termination of the Contract or the conclusion of the Term of the Contract ("the Exhaust Components Warranty"). In no event shall a re-warranty of an Exhaust Component extend beyond the original warranty period for such Exhaust Component. If during the Exhaust Components Warranty period, an Exhaust Component fails to conform to the Exhaust Component Warranty and Seller is promptly notified in writing by Buyer of the failure, Seller shall, at its option and as its exclusive warranty liability, either (i) repair the non-conforming Exhaust Component or at Seller's expense (ii) provide a replacement for the non-conforming Exhaust Component.

ARTICLE 9. INTELLECTUAL PROPERTY

9.1 Patent, Trademark or Copyright Infringement. Seller will, at its own expense, indemnify and defend or at its option settle any suit or proceeding brought against Buyer provided that such claim is based on an allegation that any Program Parts, Miscellaneous Hardware or any of the processes used by Seller in connection with the Services, supplied by Seller hereunder and used for its intended purpose, constitutes an infringement of any filed or registered United States patent, trademark or copyright, if Seller is notified promptly in writing and given authority, information and assistance in a timely manner for the defense of said suit or proceeding. Seller will pay the damages and costs awarded in any suit or proceeding so defended. Seller will not be responsible for any settlement of such suit or proceeding made without its prior written consent. However, in no event shall Seller have any authority to accept or enter any judgment against Buyer without the express written consent of Buyer after approval of Buyer's governing body, which approval shall not be unreasonably withheld. In case the Program Parts, Miscellaneous Hardware or processes used by Seller in connection with the Services supplied by Seller hereunder, as a result of any suit or proceeding so defended, is held to constitute infringement of any United States patent, trademark or copyright, or its use by Buyer is enjoined, Seller will, at its option and its own expense, either: (a) procure for Buyer the right to continue using said Program Part, Miscellaneous Hardware or process; (b) replace it with a substantially equivalent noninfringing Program Part, Miscellaneous Hardware or process; or (c) modify it so it becomes noninfringing.

9.2 Limitation of Intellectual Property Obligations. Seller will have no duty or obligation to Buyer under this Article to the extent that the Program Parts, Miscellaneous Hardware or any of the processes used by Seller in connection with the Services supplied by Seller hereunder is (a) supplied according to Buyer's design or instructions wherein compliance therewith has caused Seller to deviate from its normal course of performance, (b) modified by Buyer or its contractors after delivery, or (c) combined by Buyer or its contractors with items not furnished hereunder and by reason of said design, instruction, modification, or combination a suit is brought against Buyer. In addition, if by reason of such design, instruction, modification or combination, a suit or proceeding is brought against Seller, Buyer shall protect Seller in the same manner and to the same extent that Seller has agreed to protect Buyer under the provisions of Section 9.1 above.

9.3 Protection of Seller's Intellectual Property Rights. Buyer acknowledges and agrees that Seller and its affiliates have a considerable investment in its intellectual property rights and technology associated with the Combustion Turbine, Steam Turbine and Program Parts. Buyer therefore agrees not to take any action, either directly or through an affiliate, which would

infringe or violate Seller's or its affiliates' rights in its patents, trademarks, copyrights, trade secrets or other intellectual property. Buyer further agrees to use its best efforts to ensure that its suppliers, contractors and other agents not take any action inconsistent with Seller's or its affiliates' intellectual property rights.

9.4 Exclusivity of Duties and Remedies. THIS ARTICLE IS AN EXCLUSIVE STATEMENT OF ALL THE OBLIGATIONS AND LIABILITIES OF THE SELLER, RELATING TO PATENTS, TRADEMARKS OR COPYRIGHTS AND DIRECT OR CONTRIBUTORY INFRINGEMENT THEREOF AND OF ALL THE REMEDIES OF BUYER RELATING TO ANY CLAIMS, SUITS, OR PROCEEDINGS INVOLVING PATENTS, TRADEMARKS OR COPYRIGHTS. Compliance with this Article as provided herein shall constitute fulfillment of all liabilities of the Seller under the Contract with respect to patents, trademarks or copyrights.

ARTICLE 10. COMPLIANCE WITH LAWS

10.1 Generally. Subject to the provisions of Section 10.2, Seller shall at all times comply, and shall assure that the Program Parts, Miscellaneous Hardware and Services supplied by Seller, at the time of Delivery or performance comply in all material respects with all Laws applicable to the design and manufacture of the Program Parts and Miscellaneous Hardware, and the performance by Seller of its other obligations hereunder.

10.2 Changes in Law. In the event that any change in Laws enacted or otherwise approved after the Effective Date of this Contract requires or makes advisable any modifications to the Program Parts, Non-Program Parts, Miscellaneous Hardware or Services, Buyer or Seller, as the case may be, shall reasonably promptly notify the other thereof in writing upon its discovery of such change in Laws. If any such modification is required by any changes in Laws, Seller shall make such modification provided such modification is reasonably technically feasible, and if such modification increases Seller's cost of producing the Program Parts, Non-Program Parts Miscellaneous Hardware, or performing the Services, or delays Seller's schedule or affects any other provision of this Contract, the Parties shall negotiate in good faith and enter into a Change Order in accordance with the provisions of Section 6.2 above.

ARTICLE 11. INSURANCE

11.1 Seller's Insurance. Without limiting Seller's liability under this Contract, Seller shall maintain in full force and effect during the Term of this Contract with insurance companies having a Best's Insurance Guide rating of "A" or better (or otherwise satisfactory to Buyer), the insurance described in 11.1(a), (b), (c), and (d) below, with coverage limits as indicated, and shall provide to Buyer certificates evidencing such coverages, or, if requested by Buyer (in the event of a claim that falls within the scope of coverage conferred by such insurance), copies of applicable policies. The minimum required coverage limits set forth below in 11.1(a), (b), (c), and (d) may be met by any combination of applicable policies and limits as long as the combined limits thereof equal or exceed the required limits:

- (a) Commercial general liability insurance, including bodily injury, property damage, products/completed operations, contractual, and personal injury liability, with a combined single limit of one million Dollars (U.S. \$1,000,000) per occurrence with a two million Dollar (U.S. \$2,000,000) annual aggregate;

- (b) Excess liability coverage providing excess general liability, automobile liability and employer's liability with a combined single limit of five million Dollars (U.S. \$5,000,000);
- (c) Workers' compensation insurance with statutory limits, and employers liability insurance with limits of one million Dollars (U.S. \$1,000,000) per accident; and
- (d) Business automobile liability insurance in comprehensive form covering owned, non-owned and hired automobiles for a combined single limit of one million Dollars (U.S. \$1,000,000) per occurrence.

11.1.2 Seller agrees to cause such insurance policies to be endorsed to provide that it is primary to any insurance carried by Buyer, and agrees to cause its commercial general liability, umbrella excess liability, employer's liability and automobile liability policies/coverages listed in Sections 11.1(a), (b), and (d) to name Buyer, its affiliates and its subcontractors of every tier, identified in writing for this purpose to Seller by Buyer, as an additional insured to the extent that bodily injury, death or third party property damage are caused by the negligence of Seller or Seller's Subcontractors. Buyer shall be given thirty (30) Days advance notice of cancellation or material change. All policies furnished by Seller shall include waivers of subrogation rights against Buyer and its affiliates. If any such waiver of subrogation is not obtained by Seller, Seller shall defend, indemnify and hold Buyer and its affiliates harmless in and from any claim or proceeding by Seller's insurer(s) seeking subrogation which should have been waived. Buyer shall not be obligated to perform under this Contract at any time when Seller is not in full compliance with this Article 11.

11.2 Buyer's Insurance.

11.2.1 Without limiting Buyer's liability under this Contract, Buyer shall maintain in full force and effect during the Term of this Contract with insurance companies having a Best's Insurance Guide rating of "A" or better (or otherwise satisfactory to Seller), the insurance described below, with coverage limits as indicated, and shall provide to Seller certificates evidencing such coverages, or, if requested by Seller, copies of applicable policies. The minimum required coverage limits set forth below may be met by any combination of applicable policies and limits as long as the combined limits thereof equal or exceed the required limits:

- (a) Property damage insurance, including boiler and machinery coverage covering all real and personal property of Buyer on a replacement cost basis;
- (b) Commercial general liability insurance, including bodily injury, property damage, products/completed operations, contractual, and personal injury liability, with a combined single limit of one million Dollars (U.S. \$1,000,000) per occurrence with a two million Dollar (U.S. \$2,000,000) annual aggregate;
- (c) Excess liability coverage providing excess general liability, automobile liability and employer's liability with a combined single limit of five million Dollars (U.S. \$5,000,000);
- (d) Workers' compensation insurance with statutory limits, and employers liability insurance with limits of not less than one million Dollars (U.S. \$1,000,000) per accident; and

- (e) Business automobile liability insurance in comprehensive form covering owned, non-owned and hired automobiles for a combined single limit of one million Dollars (U.S. \$1,000,000) per occurrence.

11.2.2 Buyer agrees to cause such insurance policies to be endorsed to provide that it is primary to any insurance carried by Seller, and agrees to cause its commercial general liability, umbrella excess liability, employer's liability and automobile liability policies/coverages listed in Sections 11.2.1(b), (c) and (e) to name Seller, its affiliates and its Subcontractors of every tier, identified in writing for this purpose to Buyer by Seller, as an additional insured to the extent that bodily injury, death or third party property damage are caused by the negligence of Buyer or Buyer's other subcontractors. Seller shall be given thirty (30) Days advance notice of cancellation or material change. All policies furnished by Buyer shall include waivers of subrogation rights against Seller and its affiliates. If any such waiver of subrogation is not obtained by Buyer, Buyer shall defend, indemnify and hold Seller and its affiliates harmless in and from any claim or proceeding by Buyer's insurer(s) seeking subrogation which should have been waived. Seller shall not be obligated to perform work under this Contract at any time when Buyer is not in full compliance with this Article 11.

ARTICLE 12. TERMINATION

12.1 Termination for Seller's Inability to Perform. If any proceeding is instituted against Seller seeking to adjudicate Seller as bankrupt or insolvent, or if Seller makes a general assignment for the benefit of its creditors, or if a receiver is appointed on account of the insolvency of Seller, or if Seller files a petition seeking to take advantage of any other Law relating to bankruptcy, insolvency, reorganization, winding up or composition or readjustment of debts and, in the case of any such proceeding instituted against Seller (but not by Seller) if such proceeding is not dismissed within forty-five (45) Days of such filing, Buyer may terminate this Contract by written notice to Seller.

12.2 Termination for Seller's Failure to Perform. If Seller is in material default of any provision of this Contract, and provided Seller has not commenced cure of such default within thirty (30) Days after receipt of written notice from Buyer of such material default, Buyer may terminate this Contract by written notice to Seller.

12.3 Buyer's and Seller's Rights, Duties and Obligations Upon Buyer's Termination. If Buyer elects to terminate this Contract pursuant to Section 12.1 or 12.2, then Seller shall be entitled to retain or receive amounts paid or payable hereunder at the time of termination. Upon such a termination, Seller shall stop work on this Contract and place no further orders or lower tier subcontracts. Buyer shall transfer title to all Program Parts that are not installed in the Combustion Turbine as of the date of termination to Seller. Seller, at its expense, shall arrange transportation for and shall remove from the Site, all Program Parts to which Seller holds title. Seller shall protect Buyer's property which is in Seller's possession (if any), and upon Buyer's written instructions, Seller shall deliver to Buyer any of Buyer's property that is in Seller's possession and to which Seller has no claim of title. The cost of such delivery will be paid by Seller. Within thirty (30) Days from the effective date of such termination, Buyer shall either (a) return to Seller any of Seller's Confidential Information which had been in Buyer's possession (excluding this Contract) or (b) certify to Seller that all of Seller's Confidential Information which had been in Buyer's possession has been destroyed. If Buyer elects to terminate this Contract pursuant to the provisions of Section 12.1 or 12.2, then:

- (a) Seller shall credit Buyer's account for the applicable portion of the Variable Fee that Buyer has paid to Seller for the Combustion Turbine since the completion of the most recent Scheduled Outage or Unscheduled Outage (whichever most recently occurred) for such Combustion Turbine during which the workscope of a Combustor Inspection Scheduled Outage was completed (the Parties acknowledge that such workscope can be completed as part of an outage including the full or partial workscope of a Hot Gas Path Scheduled Outage or an outage including the full or partial workscope of a Major Inspection Scheduled Outage), and
- (b) Seller shall credit Buyer's account on a pro-rated basis, for the applicable portion of the Fixed Annual Fee that, based upon the date of termination, Buyer has paid but not used under the Contract or Seller shall charge Buyer's account for the portion of the Fixed Annual Fee that Buyer has used but has not paid for (each as applicable).

Within thirty (30) Days after receipt of Buyer's notice of termination, Seller will submit to Buyer in writing its calculation of the amount owed to Buyer or amount owed to Seller as a result of such termination, including the items stated in subclauses (a) and (b) above. The Party due the net credit hereunder (the "Invoicing Party") will then invoice the other Party (the "Paying Party") therefore, and the Paying Party will pay the undisputed amounts of such invoice within thirty (30) Days of its receipt of such invoice. If prior to the expiration of such thirty (30) Day period of time, the Paying Party disputes all or any portion of such invoice, the Paying Party shall, prior to the expiration of such time period, provide the Invoicing Party with written notice identifying the basis for such dispute. Thereafter, the payment of such disputed amount shall be deferred until such dispute has been resolved to the satisfaction of the Parties or pursuant to the provisions of Section 16.4. Any disputed amount which is ultimately determined to have been payable prior to the actual date of payment shall be paid with interest, at the Delayed Payment Rate, from the date due to the date of payment. No further rights or obligations shall exist between the Parties with respect to this Contract except for those that expressly survive, per Section 16.21, Survival.

WITH THE EXCEPTION OF THOSE RIGHTS AND REMEDIES THAT EXPRESSLY SURVIVE PURSUANT TO SECTION 16.21, THIS SECTION IS AN EXCLUSIVE STATEMENT OF ALL THE RIGHTS, DUTIES AND OBLIGATIONS OF THE PARTIES, RELATING TO TERMINATION UNDER SECTIONS 12.1 AND 12.2 AND OF ALL THE REMEDIES RELATING TO TERMINATION FOR SELLER'S INABILITY OR FAILURE TO PERFORM. Compliance with this Section as provided herein shall constitute fulfillment of all liabilities of the Parties under the Contract with respect to termination for Seller's inability or failure to perform.

12.4 Termination Prior to Period 1. The Parties expressly agree that the terms and conditions of this Contract, including in particular the prices stated herein, are based upon this Contract being in full force and effect beginning with the Effective Date of the Contract and continuing through the full Term of the Contract. The Parties further agree that it would be extremely difficult to determine the precise amount of economic harm that would be suffered by Seller due to the occurrence of any of the following after the Effective Date and prior to the beginning of Period One as identified in Exhibit C, Projected Scheduled Outage Plan: (a) Buyer's termination of the OESC or (b) Seller's termination of this Contract for Buyer's breach or default of the same or of the OESC. The Parties accordingly agree that an amount of ten percent (10%) of the Contract Price is a fair and reasonable estimation of the amount of economic harm that would be suffered by Seller for any such termination, and that the amount

does not constitute a penalty. In the event of any such termination the Buyer agrees to make payment to Seller of the amount stated above within thirty (30) Days of Seller's invoice for same. If termination is effected under this Section 12.4, Termination Prior to Period 1, then the obligations of the Parties pursuant to either Section 12.3 or Section 12.6 (each as applicable) shall remain.

12.5 Termination by Seller. Seller may at its option terminate or suspend its performance of the work under this Contract or suspend its performance of the work under this Contract then terminate the Contract by written notice to Buyer if:

- (i) with respect to any invoice delivered pursuant to Section 4.3, Buyer neither makes payment thereon in accordance with Section 4.4 nor provides a notice of dispute relating thereto in accordance with Section 4.5, in either case within the thirty (30) Day period provided in such Sections,
- (ii) a proceeding is instituted against Buyer seeking to adjudicate Buyer as bankrupt or insolvent and such proceeding is not dismissed within forty-five (45) Days of such filing,
- (iii) Buyer makes a general assignment for the benefit of its creditors,
- (iv) a receiver is appointed on account of the insolvency of Buyer,
- (v) a force majeure event has persisted for six (6) months or longer,
- (vi) Buyer files a petition seeking to take advantage of any other Law relating to bankruptcy, insolvency, reorganization, winding up or composition or readjustment of debts,
- (vii) a change in Laws has made Seller's performance impracticable as determined by Seller,
- (viii) Buyer is in material default of any provision of this Contract and provided Buyer has not commenced cure of such default within thirty (30) Days after receipt of written notice of such material default from Seller or
- (ix) a change in the ownership or ultimate management control of Buyer that Seller reasonably believes could materially affect Seller's interests, including without limitation the sale of any ownership interest in Buyer or the Project to any entity in competition with Seller.

12.6 Buyer's and Seller's Rights, Duties and Obligations Upon Seller's Termination. If Seller elects to terminate this Contract pursuant to Section 12.5, then, upon such a termination, Seller shall stop work on this Contract and place no further orders or lower tier subcontracts. Buyer shall transfer title to all Program Parts that are not installed in the Combustion Turbine as of the date of termination to Seller. Seller, at its expense, shall arrange transportation for and shall remove from the Site, all Program Parts to which Seller holds title. Seller shall protect Buyer's property which is in Seller's possession (if any), and upon Buyer's written instructions, Seller shall deliver to Buyer any of Buyer's property that is in Seller's possession and to which Seller has no claim of title. The cost of such delivery will be paid by Buyer. Within thirty (30) Days

from the effective date of such termination, Buyer shall either (a) return to Seller any of Seller's Confidential Information which had been in Buyer's possession (excluding this Contract) or (b) certify to Seller that all of Seller's Confidential Information which had been in Buyer's possession has been destroyed. If Seller elects to terminate this Contract pursuant to Section 12.5, then:

- (a) Seller shall credit Buyer's account for the applicable portion of the Variable Fee that Buyer has paid to Seller for the Combustion Turbine since the completion of the most recent Scheduled Outage or Unscheduled Outage (whichever most recently occurred) for such Combustion Turbine during which the workscope of a Combustor Inspection Scheduled Outage was completed (the Parties acknowledge that such workscope can be completed as part of an outage including the full or partial workscope of a Hot Gas Path Scheduled Outage or an outage including the full or partial workscope of a Major Inspection Scheduled Outage),
- (b) Seller shall credit Buyer's account on a pro-rated basis, for the applicable portion of the Fixed Annual Fee that, based upon the date of termination, Buyer has paid but not used under the Contract or Seller shall charge Buyer's account for the portion of the Fixed Annual Fee that Buyer has used but has not paid for (each as applicable),
- (c) Buyer's account shall be charged the cancellation amount listed in Exhibit G, in effect at the time of such termination. For the avoidance of doubt, if the Contract is terminated by Seller pursuant to the provisions of Section 12.4, Termination Prior to Period 1, then the cancellation charge stated in this Section 12.6(c) shall not be additionally applied to such termination,
- (d) Buyer's account shall be charged for demonstrable reasonable expenses actually incurred by Seller in settling Seller's terminated orders and subcontracts hereunder and the protection of Buyer's property that is in Seller's possession (if any), and
- (e) Buyer's account shall be charged for demonstrable reasonable expenses of demobilization, equipment storage, transportation, and handling.

Within thirty (30) Days after receipt of Seller's notice of termination, Seller will submit to Buyer in writing its calculation of the amount owed to Buyer or amount owed to Seller as a result of such termination, including the items stated in subclauses (a), (b), (c), (d), and (e) above. The Party due the net credit hereunder (the "Invoicing Party") will then invoice the other Party (the "Paying Party") therefore, and the Paying Party will pay the undisputed amounts of such invoice within twenty-five (25) Days of its receipt of such invoice. If prior to the expiration of such twenty-five (25) Day period of time, the Paying Party disputes all or any portion of such invoice, the Paying Party shall, prior to the expiration of such time period, provide the Invoicing Party with written notice identifying the basis for such dispute. Thereafter, the payment of such disputed amount shall be deferred until such dispute has been resolved to the satisfaction of the Parties or pursuant to the provisions of Section 16.4. Any disputed amount which is ultimately determined to have been payable prior to the actual date of payment shall be paid with interest, at the Delayed Payment Rate, from the date due to the date of payment. No

further rights or obligations shall exist between the Parties with respect to this Contract except for those that expressly survive, per Section 16.21, Survival.

The Parties agree that it would be difficult or impossible to determine the precise amount of damages that would be incurred by Seller as a result of Buyer's breach or early termination of this Contract. Accordingly, the Parties expressly agree that Buyer's payment of the amounts listed in the Cancellation Schedule set forth in Exhibit G are in lieu of actual damages, are the Parties' reasonable estimates of fair compensation for the losses that may reasonably be anticipated to be incurred by the Seller in respect of such matters and do not constitute a penalty.

ARTICLE 13. INDEMNIFICATION

13.1 Seller's Indemnity. Seller shall defend, indemnify and hold harmless Buyer from and against liability resulting from injury to or death of persons and from physical damage to or loss of third party property to the extent caused by the negligent acts or omissions or willful misconduct of Seller while performing Services at the Site. Seller's indemnity obligation under this Section 13.1 shall not apply to any liabilities arising out of or relating to events or circumstances occurring after the end of the Contract's Term. In no event shall Seller's indemnification obligations apply to any claim by a customer of Buyer for voltage or frequency fluctuation or service interruption of any kind, or to any claim by any third party for failure of Buyer to provide power or capacity under any contract. For the purposes of this Section 13.1, third party property shall be deemed to exclude property of the Buyer, operator, lender, Buyer's affiliates, or any other property at the Site (except for property belonging to contractors temporarily working at the Site). If a third party claim is filed against Buyer pursuant to Seller's obligations under this Section 13.1, then Buyer shall provide Seller with prompt written notice thereof and Buyer shall give Seller the unrestricted right to defend the respective claim on Buyer's behalf. However, in no event shall Seller have any authority to accept or enter any judgment against Buyer without the express written consent of Buyer after approval of Buyer's governing body, which approval shall not be unreasonably withheld.

13.2 Buyer's Indemnity. Buyer shall defend, indemnify and hold harmless Seller from and against liability resulting from injury to or death of persons and from physical damage to or loss of third party property to the extent caused by the negligent acts or omissions or willful misconduct of Buyer. Buyer's indemnity obligation under this Section 13.2 shall not apply to any liabilities arising out of or relating to events or circumstances occurring after the end of the Contract's Term.

ARTICLE 14. LIMITATION OF LIABILITY

14.1 Restrictions on Recoverable Damages. BUYER EXPRESSLY AGREES THAT NEITHER SELLER NOR ITS SUBCONTRACTORS, AGENTS, AFFILIATES OR ASSIGNS WILL UNDER ANY CIRCUMSTANCES BE LIABLE TO BUYER FOR CLAIMS UNDER OR ARISING OUT OF OR RELATING TO THIS CONTRACT UNDER ANY THEORY OF RECOVERY, WHETHER BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), UNDER WARRANTY, OR OTHERWISE, FOR: ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGE OR PUNITIVE DAMAGES WHATSOEVER; DAMAGE TO OR LOSS OF BUYER'S PROPERTY OR EQUIPMENT (EXCEPT AS OTHERWISE PROVIDED FOR AND SUBJECT TO THE LIMITATIONS STATED IN SECTION 5.4); LOSS

OF DATA AND INFORMATION; LOSS OF PROFITS OR REVENUE; LOSS OF USE BY THE BUYER OF ITS MATERIAL, EQUIPMENT OR POWER SYSTEM; INCREASED COSTS OF ANY KIND, INCLUDING BUT NOT LIMITED TO CAPITAL COST, FUEL COST AND COST OF PURCHASED OR REPLACEMENT POWER; OR CLAIMS OF CUSTOMERS OF BUYER.

SELLER EXPRESSLY AGREES THAT BUYER WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO SELLER FOR CLAIMS UNDER OR ARISING OUT OF OR RELATING TO THIS CONTRACT UNDER ANY THEORY OF RECOVERY, WHETHER BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), UNDER WARRANTY, OR OTHERWISE, FOR: ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGE OR PUNITIVE DAMAGES WHATSOEVER; LOSS OF DATA AND INFORMATION; OR LOSS OF PROFITS OR REVENUE.

NOTHING IN THIS SECTION 14.1 SHALL LIMIT: (A) EITHER PARTY'S RIGHT TO AMOUNTS EXPRESSLY AGREED TO BY THE PARTIES PURSUANT TO A CHANGE ORDER HERETO, OR APPLICABLE AMOUNTS CALCULATED PURSUANT TO ARTICLE 12; OR (B) SELLER'S RIGHT TO (i) ALL OR ANY PART OF THE CONTRACT PRICE OR OTHER AMOUNTS OTHERWISE PAYABLE HEREUNDER INCLUDING BUT NOT LIMITED TO ANY OVERHEAD OR PROFITS, (ii) INTEREST ON AMOUNTS NOT PAID BY BUYER, (iii) ANY DAMAGES RESULTING FROM A CLAIM FOR INTELLECTUAL PROPERTY INFRINGEMENT OR MISAPPROPRIATION UNDER APPLICABLE LAWS, AND (iv) ANY DAMAGES RESULTING FROM VIOLATION OF CONFIDENTIALITY OBLIGATIONS.

EXCEPT FOR BUYER'S OBLIGATIONS UNDER ARTICLE 9 (INTELLECTUAL PROPERTY), SECTION 16.1 (CONFIDENTIAL OR PROPRIETARY INFORMATION), AND SECTION 16.20 (TRANSFER), EACH PARTY EXPRESSLY AGREES THAT NEITHER THE OTHER PARTY NOR IN THE CASE OF THE SELLER, SELLER'S SUBCONTRACTORS WILL, UNDER ANY CIRCUMSTANCES, BE LIABLE UNDER ANY THEORY OF RECOVERY, WHETHER BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), UNDER WARRANTY, OR OTHERWISE BEYOND FOUR (4) YEARS SUBSEQUENT TO THE EARLIER OF EITHER THE EXPIRATION OR TERMINATION OF THE TERM.

14.2 Exclusive Remedy and Limitation on Liability. BUYER EXPRESSLY AGREES THAT THE REMEDIES PROVIDED HEREIN ARE EXCLUSIVE AND THAT UNDER NO CIRCUMSTANCES SHALL THE TOTAL AGGREGATE CLAIMS AGAINST OR LIABILITY OF SELLER DURING A GIVEN CALENDAR YEAR UNDER ANY THEORY OF RECOVERY, WHETHER BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), UNDER WARRANTY, OR OTHERWISE, EXCEED THE GREATER OF FIVE MILLION DOLLARS (\$5,000,000) OR ONE HUNDRED PERCENT (100%) OF THE TOTAL PRICE PAID TO SELLER FOR THAT GIVEN CALENDAR YEAR UNDER THIS CONTRACT. THE PARTIES FURTHER EXPRESSLY AGREE THAT UNDER NO CIRCUMSTANCES SHALL THE TOTAL AGGREGATE CLAIMS AGAINST OR LIABILITY OF EITHER PARTY UNDER ANY THEORY OF RECOVERY, WHETHER BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), UNDER WARRANTY, OR OTHERWISE, EXCEED SEVENTY FIVE PERCENT (75%) OF THE TOTAL PRICE PAID TO SELLER UNDER THIS CONTRACT; PROVIDED HOWEVER, THAT THE PROVISIONS AND LIMITATIONS OF SECTION 14.2 SHALL NOT APPLY TO BUYER'S LIABILITIES ARISING OUT OF SECTION 5.4.3, ARTICLE 9, SECTION 11.2.2, ARTICLE 13, SECTION 16.1 AND SECTION 16.20 AND EXPRESSLY EXCLUDE ALL PAYMENTS MADE OR REQUIRED TO BE

MADE FROM BUYER TO SELLER FOR WORK PERFORMED UNDER THIS CONTRACT OR UPON TERMINATION OF THIS CONTRACT.

14.3 Extent of Waivers. THE WAIVERS AND DISCLAIMERS OF LIABILITY, RELEASES FROM LIABILITY, AND LIMITATIONS ON LIABILITY EXPRESSED IN THIS ARTICLE SHALL EXTEND TO SELLER AND ITS AFFILIATES, SUCCESSORS AND ASSIGNS, AND ITS AND THEIR RESPECTIVE PARTNERS, PRINCIPALS, SHAREHOLDERS, DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS.

14.4 Extent of Conflicts. THE PROVISIONS OF THIS ARTICLE SHALL PREVAIL OVER ANY CONFLICTING OR INCONSISTENT PROVISIONS SET FORTH ELSEWHERE IN THIS CONTRACT.

ARTICLE 15. FORCE MAJEURE

15.1 Excuse by Force Majeure. Seller will not be liable for failure to perform any obligation or delay in performance resulting from or contributed to by any cause beyond the reasonable control of Seller or its Subcontractors including without limitation any act of God; act of civil or military authority; act of war whether declared or undeclared; act of terrorism; act (including delay, failure to act, or priority) of any governmental authority or Buyer; civil disturbance; insurrection or riot; sabotage; fire; inclement weather conditions; earthquake; flood; strike; work stoppage or other labor difficulty; embargo; car shortage; fuel or energy shortage; delay or accident in shipping or transportation; or failure or delay beyond its reasonable control in obtaining necessary manufacturing facilities, labor, necessary import or export licenses or materials from usual sources. Notwithstanding the foregoing and for the avoidance of doubt, the following shall not be considered events of Force Majeure: economic hardship; lack of money or credit; loss of profit or loss of return on investment; changes in commodity prices and the price of raw materials, fuel and supplies; changes in labor costs, wages and benefits; changes in exchange rates; Seller's inability to perform and complete the work for the Contract Price; and, for either Party, the obligation to make payment in accordance with the terms of the Contract.

15.2 Effect of Force Majeure. In the event of a delay in performance excusable under this Article, the date of Delivery or time for performance of the work will be extended by a period of time reasonably necessary to overcome the effect of such delay and Buyer will reimburse Seller for its reasonable and identifiable additional costs and expenses resulting from said delay.

ARTICLE 16. MISCELLANEOUS

16.1 Confidential or Proprietary Information.

16.1.1 Confidentiality Obligation. Information furnished pursuant to the Contract may be regarded by Seller as confidential or proprietary information ("Confidential Information"), including Seller's proposal and the Contract itself. Buyer will (a) maintain Confidential Information in confidence with the same level of care as Buyer maintains its own confidential or proprietary information but in no event maintained with any less than a reasonable standard of care; (b) restrict the disclosure of Confidential Information within Buyer to those persons having a need for access; (c) not disclose to any third party (including affiliates, contractors or financing entities) any such information which is specifically designated as confidential or

proprietary information of Seller without the prior written permission of Seller; and (d) not use any such Confidential Information for other than the express purpose for which it is supplied. Prior to disclosing such Confidential Information to any party, Buyer shall (i) enter into an agreement with such third party requiring said third party to protect the Confidential Information and to keep it confidential, and (ii) obtain Seller's prior written approval (not to be unreasonably withheld or unduly delayed) of the agreement before any Confidential Information is disclosed to the third party. The provisions of this paragraph shall not apply to information, notwithstanding any confidential designation thereof, which was rightfully known by Buyer without any restriction as to disclosure or use at the time it is furnished, which is or becomes generally available to the public without breach of any agreement, or which is received from a third party without limitation or restriction on said third party or Buyer at the time of disclosure.

16.1.2 Disclosure Pursuant to Government Mandate. When required by appropriate governmental authority, including governmental regulations, applicable law or regulation, by order of a court of competent jurisdiction or lawful subpoena (hereinafter collectively referred to as ("Government Authority") or when Buyer has received a valid request under the California Public Records Act, Buyer may disclose such proprietary information to such Government Authority or requestor under any California Public Records Act request, subject to the following conditions: (a) Buyer shall provide Seller within five (5) Days of receiving the request written notice of the request and will include a copy of such request with the written notice; (b) Buyer shall provide to Seller reasonable access to the documents Buyer proposes to produce in response to any such request; (c) after Seller is provided reasonable access to the documents Buyer proposes to produce, Seller shall have twenty (20) Days within which to provide Buyer with a list of those documents that Seller objects to the Buyer producing based on said documents being confidential, proprietary or trade secret information of Seller (hereinafter the "Disputed Documents"); (d) within five (5) Days of receiving any objection from Seller, Buyer shall provide a written notice to Seller stating whether Buyer agrees with Seller's objections; (e) if Buyer does not agree to some or all of Seller's objections, Buyer shall so state this in the response and shall specifically identify to Seller which Disputed Documents Buyer proposes to produce; and (f) Buyer agrees, however, that it shall not produce any Disputed Documents until ten (10) days after it has provided Seller with written notice in accordance with 16.1.2 (d) above so that Seller can take further action to protect any Disputed Documents from being produced including the filing of a motion for protective order in court. In the event that Buyer is found by a court of competent jurisdiction to be responsible for reimbursing attorneys' fees or costs as a result of failing to produce Disputed Documents to such requestor that files a valid California Public Records Act request, Seller agrees to indemnify Buyer for such fees and costs to the extent that Buyer's failure to produce documents was based solely on Seller's actions.

Under any and all circumstances relating to a request to the Buyer for documentation, Buyer shall make every reasonable effort (which shall include participation by Seller in discussions with the Government Authority involved) to secure confidential treatment and minimization of the proprietary information to be provided. In the event that efforts to secure confidential treatment are unsuccessful, Seller shall have the prior right to revise such information to minimize the disclosure of such information in a manner consonant with its interests and the requirements of the Government Authority involved.

16.1.3 Indemnity. Buyer shall be responsible for maintaining Seller's Confidential Information subject to the provisions of Section 16.1.1 and 16.1.2. Any unauthorized disclosure of Confidential Information or other violation of the provisions of this Contract shall be deemed a material breach of this Contract. The Parties agree that monetary damages for any breach of

the provisions of this Article are inadequate and that the non-breaching Party is entitled to appropriate equitable relief (including without limitation, injunctive relief or specific performance) for any breach of such provisions. Such remedies shall neither be exclusive nor be in derogation of any other rights or remedies which a Party may have under this Contract or under applicable law. All of the non-breaching Party's rights and remedies shall be cumulative and may be exercised separately or concurrently.

16.1.4 Other Agreements. The provisions of this Section 16.1 shall be in addition to, and not in lieu of, any other confidentiality agreements or arrangements between Seller and Buyer.

16.2 Subcontractors. Seller shall have the right to have individual items of the Program Parts, Non-Program Parts or Miscellaneous Hardware supplied to it or Services performed by Subcontractors, provided that no such Subcontractor is intended to be or shall be deemed a third party beneficiary of this Contract. Notwithstanding the foregoing, no arrangements between Seller and any Subcontractor shall create any contractual relationship between any Subcontractor and Buyer. Seller shall be solely responsible for the engagement and management of Subcontractors in the performance of work, for all work performed and items provided by Subcontractors and for all acts and omissions of Subcontractors.

Seller will not sign the Lodi Energy Center Project Maintenance Labor Agreement ("MLA") (attached hereto as Exhibit J), however, Seller agrees to subcontract Covered Work as defined in Exhibit J that is included in the Contract only to Subcontractors who abide by the project MLA. Seller anticipates subcontracting the labor for Covered Work that is included in the Contract to the Seller's subsidiary company named Siemens Generation Services Co. ("SGSC"). SGSC is a national contractor which specializes in using union building trade labor to perform maintenance on combustion turbine generators, steam turbine generators and their auxiliaries.

16.3 Third Parties. Except as otherwise expressly provided in this Contract, nothing in this Contract shall be construed to create any duty to, or standard of care with respect to or any liability to any person who is not a Party to this Contract.

16.4 Dispute Resolution. In the event a dispute arises between Seller and Buyer regarding the application or interpretation of any provision of this Contract that cannot be resolved pursuant to the alternative dispute resolution procedures described below, the Parties expressly agree, notwithstanding that the Project is located in the City of Lodi, San Joaquin County, California that the County of San Francisco and specifically, the Superior Court of the State of California in and for the County of San Francisco or the United States District Court for the Northern District of California shall be the venue for any action or proceeding between the Parties with respect to this Contract. Pending the resolution of any dispute, protest or claim under this Section 16.4, Seller or Buyer shall proceed with the performance of its undisputed obligations consistent with its respective position in the dispute, including but not limited to payment. Notwithstanding any provisions of this Dispute Resolution Article, including the alternative dispute resolution procedures described below, Seller shall have the right at any time to pursue equitable relief, including injunctive relief, under Section 16.1.

16.4.1 All questions of fact, and any and all disputes with reference thereto, arising out of the performance of this Contract, or changes therein, or extra work in connection therewith, shall be submitted in writing to the applicable Party.

16.4.2 Prior to initiating litigation in a court of competent jurisdiction, both Seller and Buyer shall undergo alternative dispute procedures as outlined in California Public Contract Code Section 20104, et seq. for claims that do not exceed one million, five hundred thousand Dollars (\$1,500,000). The Parties also expressly agree that the Alternative Dispute Resolution procedures outlined in California Public Contract Code Sections 20104, et seq. shall apply to all claims that exceed three hundred seventy-five thousand Dollars (\$375,000) but are equal to or less than one million five hundred thousand Dollars (\$1,500,000), and that such procedures are incorporated as though fully set forth in this Contract.

16.4.3 For claims in excess of one million five hundred thousand Dollars (\$1,500,000) in the aggregate, both Seller and Buyer agree to the following process:

- (a) The claim shall be in writing and include documentation, if available, that substantiates the claim;
- (b) The Party receiving the claim shall have sixty (60) Days to respond in writing to the claim;
- (c) If the claimant disputes the written response, or a written response has not been provided within the sixty (60) Day period, claimant may notify the other Party, within fifteen (15) Days of receipt of the written response or within fifteen (15) Days of when the response was due, that it demands an informal conference to meet and confer for settlement of the issues in dispute. This meeting must be held within thirty (30) Days of such demand and shall be attended by senior management of the Parties;
- (d) Following the meet and confer set forth in Section 16.4.3(c), claimant is free to pursue any legal remedies accorded by the law including, but not limited to, filing a lawsuit in court; and
- (e) Seller and Buyer agree that the procedures set forth in California Public Contract Code Sections 20104, et seq., do not apply to disputes that exceed one million, five hundred thousand Dollars (\$1,500,000) in the aggregate.

16.5 Assignment and Delegation. The Contract will not be assigned by either Party without the prior written consent of the other Party, which consent will not be unreasonably withheld. However, Seller may assign the Contract without prior written consent, in whole or in part, to any subsidiary, parent, or successor organization (whether as a result of reorganization, restructuring or sale) or affiliate of Seller, or may assign the Contract in whole or in part, to such entity that substantially all of the assets or direct ownership thereof relating to the power generation business have been transferred. Any purported assignment without such prior written consent shall be null and void.

16.6 Severability. If any phrase, sentence, clause, Section or Article contained in this Contract is held invalid by a court of competent jurisdiction, such a ruling shall not affect the validity of the remaining portions of the Contract so long as the material purposes of this Contract can be determined and effectuated. The Parties shall negotiate appropriate modifications to the Contract to restore the Contract to the Parties' original intent.

16.7 Amendments. No change, amendment or modification of this Contract shall be valid or binding upon the Parties hereto unless such change, amendment or modification shall be in writing and duly executed by both Parties hereto.

16.8 Joint Effort. Preparation and negotiation of this Contract has been a joint effort of the Parties and neither the Contract nor any of its provisions shall be construed against either of the Parties as the drafting party or otherwise. Each Party has retained its own experts and professionals, and has not relied on the expert or professional advice of the other Party hereto.

16.9 Captions. The captions contained in this Contract are for convenience and reference only and in no way define, describe, extend or limit the scope or intent of this Contract or the intent of any provision contained herein.

16.10 Non-Waiver. Any failure of any Party to enforce any of the provisions of this Contract or to require compliance with any of its terms at any time during the pendency of this Contract shall in no way affect the validity of this Contract, or any part hereof, and shall not be deemed a waiver of the right of such Party thereafter to enforce any and each such provision.

16.11 Applicable Law. This Contract shall be governed by, construed and enforced in accordance with the laws of the State of California, exclusive of conflicts or choice of law provisions or the United Nations Convention on Contracts for the International Sale of Goods.

16.12 Successors and Assigns. This Contract shall be binding upon and inure to the benefit of the Parties hereto, their successors and permitted assigns.

16.13 Counterparts. This Contract may be signed in any number of counterparts and each counterpart shall represent a fully executed original.

16.14 Notices. Any written notice, direction, instruction, request, or other communication required or permitted under this Contract, including payment invoices from Seller to Buyer, shall be deemed to have been duly given on the date of receipt, and shall be either served personally or by telefacsimile to the Party to whom notice is to be given, or mailed to the Party to whom notice is to be given, by first class registered or certified mail, return receipt requested, postage prepaid, and addressed to the addressee at the address stated opposite its name below, or at the most recent address specified by written notice given to the other Party in the manner provided in this Section 16.14.

BUYER: Northern California Power Agency
Lodi Energy Center
12745 North Thornton Rd.
P.O. Box 1478
Lodi, CA 95242
Attention: Plant Manager
Tel: (209) 333-6730

With copies to:

Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678
Attention: General Manager and General Counsel
Tel : (916) 781-3636
Fax : (916) 781-4254

SELLER: Siemens Energy, Inc.
4400 Alafaya Trail MC-605
Orlando, FL 32826-2399
Attention: Long-Term Programs c/o Gregory Wendt
Telephone: (407) 736-3543
Fax: (407) 736-5015

16.15 Complete Contract. This Contract, including all Exhibits attached hereto, constitutes the complete agreement between the Parties as of the Effective Date of the Contract, and supersedes any and all agreements (oral or written), proposals, discussions or representations made or dated prior thereto concerning the subject matter therein.

16.16 Site Access. Seller's personnel performing Services at the Site shall comply with Buyer's Site safety and security measures at the Site.

16.17 Permits and Licenses. Buyer shall be responsible for obtaining all necessary approvals, permits and licenses for the Project from governmental agencies having jurisdiction including any import and export licenses. Notwithstanding any other provision herein, the obligation of Buyer to pay for Program Parts, Non-Program Parts, Miscellaneous Hardware or Services as set forth in this Contract shall not be affected by any delay or failure to secure or renew, or by the cancellation of, any such necessary approvals, permits or licenses.

16.18 Special Packing. Seller will pack for standard shipment via truck or rail transportation. When this packing will not meet Buyer's requirements covering preparation of Program Parts, Non-Program Parts or Miscellaneous Hardware for special shipments, Buyer must notify Seller of the special packing specifications involved during negotiation of the Contract. The charge made for such packing will be based on its cost to Seller and will be shown as a separate item on the invoice.

16.19 Return of Program Parts, Non-Program Parts or Miscellaneous Hardware. Seller shall pack and arrange for transportation off of the Site, all Program Parts that were removed from the Combustion Turbine during the preceding outage and, when possible, Seller shall use the same shipping containers for such Program Parts as Seller provided to Buyer. In no event will Seller be responsible for Program Parts, Non-Program Parts or Miscellaneous Hardware returned by Buyer without proper authorization and identification.

16.20 Transfer. Prior to the transfer to a third party of any Program Parts, Non-Program Parts and Miscellaneous Hardware or the transfer of any interest in said Program Parts, Non-Program Parts and Miscellaneous Hardware or Buyer's power generation facility in which said Program Parts, Non-Program Parts and Miscellaneous Hardware are installed, Buyer shall obtain for Seller written assurances from the transferee of limitation of and protection against liability following the proposed transfer at least equivalent to that afforded Seller and its Subcontractors under the Contract. Transfer contrary to the provisions of this Section shall

make Buyer the indemnitor of Seller and its Subcontractors against any liabilities incurred by Seller and its Subcontractors in excess of those that would have been incurred had no such transfer taken place.

16.21 Survival. The provisions of Articles 9, Intellectual Property, 13, Indemnification, and 14, Limitation of Liability and Sections 16.1, Confidential or Proprietary Information and 16.20, Transfer, of this Contract shall survive the expiration or other termination of the Contract.

16.22 Environmental Compliance. The performance of Service at the Site may involve the generation of regulated waste (as defined below).

Buyer shall be responsible for the handling, storage and disposal of all regulated wastes at its expense and agrees to indemnify Seller against any related claims or actions. Buyer shall furnish Seller with appropriate containers for regulated wastes and shall designate a waste storage facility at the Site where such containers are to be placed by Seller for removal and disposal by Buyer. Buyer shall handle, store and dispose of regulated waste in accordance with all applicable governmental, federal, state and local laws, rules, regulations and ordinances. "Regulated waste" shall mean (a) (i) "hazardous waste" or (ii) "industrial waste", as either (i) or (ii) is defined in or regulated under or by the national laws of the country, the state/provincial and the local laws applicable to the Site, or (b) any other waste the handling, storage, or disposal of which requires a permit, license, authorization, approval, or other special handling.

16.23 Asbestos and Thermal Insulation.

The terms "Asbestos" and "Presumed Asbestos Containing Material" shall have the meanings set forth in United States Code of Federal Regulations Chapter 29 Section CFR 1926.1101 et seq.

- (1) The Buyer, by allowing access to any Site, thereby warrants, represents, and certifies that any areas there associated with the Seller's scope of work, including, without limitation, areas of ingress and egress thereto (the "Work Areas") either (a) are free of asbestos or asbestos containing materials (collectively "ACM"), or (b) any ACM there present is lawfully abated and conspicuously and specifically marked as asbestos or ACM, and all thermal insulation, sprayed-on surfacing material, and/or Presumed Asbestos Containing Material ("PACM") the disturbance of which could occur in or removal of which is required for the performance of the Services has been removed. Without limiting its other rights and remedies Seller shall not be obligated to commence or may stop any work in any Work Areas unless fully satisfied that the Buyer is in compliance with this paragraph and shall be entitled to an equitable adjustment in the schedule, price and other provisions of the Contract affected thereby or otherwise affected by Buyer's non-compliance.
- (2) Seller does not represent that it is licensed to abate ACM. Where the Services include activities such as handling, modification, removal, or reinstallation of generator wedges, packing, or high temperature gaskets (such materials herein "GPW"), then, and unless Seller is provided satisfactory written evidence that such GPW is not ACM, Seller shall be obligated only to the extent (a) such activities would be classified as Class II or Class III activity under United States Code of Federal Regulations Chapter 29 Section CFR 1926.1101 et seq., (b)

such activities do not require a permit, license, or authorization, (c) such activities are not likely to generate airborne asbestos fibers, and (d) all such GPW is non-friable. In all other cases, such activities shall be Buyer's responsibility and Seller shall be entitled to an equitable adjustment in the schedule, price and other pertinent affected provisions of this Contract should the same not be performed in a timely manner. The disposal of any GPW or scrap or waste material resulting from its disturbance or removal shall in all cases be the Buyer's responsibility.

16.24 Export Law Compliance. Buyer acknowledges that Seller is required to comply with applicable export laws and regulations relating to the sale, exportation, transfer, assignment, disposal and usage of the Program Parts, Non-Program Parts, Miscellaneous Hardware and Services provided under the Contract, including any export license requirements. Buyer agrees that such Program Parts, Non-Program Parts, Miscellaneous Hardware and Services shall not at any time directly or indirectly be used, exported, sold, transferred, assigned or otherwise disposed of in a manner which will result in a non-compliance with such applicable export laws and regulations. It shall be a condition of the continuing performance by Seller of its obligations hereunder that compliance with such export laws and regulations be maintained at all times.

NOW, THEREFORE, the Parties hereto have entered into this Contract as of the Effective Date first appearing above.

SELLER
SIEMENS ENERGY, INC.

By: Craig A. Weeks
Name: CRAIG A. WEEKS
Title: VICE PRESIDENT, GLOBAL
SERVICE OPERATIONS

BUYER
NORTHERN CALIFORNIA POWER AGENCY

By: Ken Speer for Jim Pope
James H. Pope, General Manager

ATTEST

By: Cary A. Padgett
Cary A. Padgett, Assistant Secretary

APPROVED AS TO FORM:

By: Ruthann G. Ziegler
Ruthann G. Ziegler, Assistant General
Counsel

Exhibit A
Scope of Work Description

1.0 SCOPE DOCUMENTS

1.1 Scope Documents. This Scope of Work Description consists of this general description and the following addenda which are specifically made a part hereof by reference:

Addendum 1A	-	Combustion Turbine Scheduled Outage Services Description
Addendum 1B	-	Steam Turbine Scheduled Outage Services Description
Addendum 2A	-	Combustion Turbine Scheduled Outage Division of Responsibilities
Addendum 2B	-	Steam Turbine Scheduled Outage Division of Responsibilities
Addendum 3	-	Scope of Program Management Services

1.2 Conflicting Provisions. In the event of any conflict between this document and any addendum hereto, the terms and provisions of this document, as amended from time to time, shall control. In the event of any conflict among the addenda, the following order of precedence shall govern: Addendum 1A, 1B, 2A, 2B, and 3. Subject to the foregoing, the several instruments forming part of this Scope of Work Description are to be taken as mutually explanatory of one and another and in the case of ambiguities or discrepancies within or between such parts shall be explained and adjusted by the mutual agreement of the Parties.

2.0 SELLER'S OBLIGATIONS

2.1 Program Part(s) During the Term, Seller shall deliver the type and quantity of Serviceable Program Parts as required per the Scheduled Outage plan jointly developed and revised in accordance with Section 4.2 of this Exhibit A, Scope of Work Description.

2.2 Miscellaneous Hardware, Non-Program Parts, and Exhaust Components. During the Term, Seller shall deliver the type and quantity of Miscellaneous Hardware as required per the Scheduled Outage plan jointly developed and revised in accordance with Section 4.2 of this Exhibit A, Scope of Work Description. Seller shall supply any Non-Program Parts and Exhaust Components as mutually agreed to by the Parties and specified in a Change Order issued pursuant to Article 6.

2.3 Scheduled Outage Services. During the Term, Seller shall, per the Scheduled Outage plan jointly developed and revised in accordance with Section 4.2 of this Exhibit A, Scope of Work Description, provide all labor, supervision and technical field assistance (TFA engineering) to complete its Scheduled Outage Services, specified in Addenda 1A and 1B hereto for the applicable Scheduled Outage. Furthermore, as part of such Scheduled Outage Services, Seller is responsible for those responsibilities listed in Addenda 2A and 2B which have an "X" in the Seller column.

2.4 Program Management Services. Seller shall provide Program Management Services to manage the Steam Turbine and Combustion Turbine maintenance program, in accordance with Addendum 3 hereto, throughout the Term of this Contract.

2.5 Remote Monitor System. Seller, at its sole discretion, at any time during the Term of this Contract, may place, at no cost to Buyer, a monitoring system pursuant to the provisions of Exhibit K, Remote Monitor System.

2.6 Transportation. Seller will transport Program Parts, Non-Program Parts and items of Miscellaneous Hardware to and from the Site in accordance with its obligations under the Contract.

3.0 BUYER'S OBLIGATIONS

3.1 Storage. Buyer will store and maintain the parts, including any Program Parts, Non-Program Parts, Exhaust Components and Miscellaneous Hardware supplied by Seller hereunder, materials, tools and bolting kits at the Site in accordance with the original equipment manufacturer's and Seller's written instructions.

3.2 Project Operation. Buyer will maintain and operate the Combustion Turbine and Steam Turbine consistently with the warranty conditions stated in Article 8, Warranty, of the Contract.

3.3 Training. Buyer will ensure that its operator and maintenance personnel are properly trained in the correct operation and maintenance of the Project including the control system.

3.4 Scheduled Outage. Buyer will provide indoor work space for the Scheduled Outage Services personnel, including the outage manager, outage engineers and Combustion Turbine and Steam Turbine technicians. Additionally, Buyer will provide the resources listed in Addenda 2A and 2B which have an "X" in the Buyer column.

3.5 Hazardous Waste. Buyer will arrange for the disposal of all hazardous wastes generated by the Seller and Buyer.

3.6 Operating Data. At the end of each month Buyer will provide to Seller the number of Equivalent Starts and EBHs incurred by the Combustion Turbine and Steam Turbine during that month and the data to support the calculations.

3.7 Remote Monitor System. If a monitoring system is provided by Seller pursuant to Exhibit K, Remote Monitor System, Buyer shall also perform the obligations stated therein.

3.8 Transportation. Buyer will transport Program Parts that are removed from the Combustion Turbine after outages from the Site to Seller's designated facility.

4.0 JOINT OBLIGATIONS

4.1 Deviations to Scope. Either Party shall inform the other of any unexpected findings or any deviations from the Scheduled Outage plan and Seller and Buyer shall jointly modify, pursuant to a Change Order, the scope of the deliverables and Services related to the affected Scheduled Outage.

4.2 Outage Schedule. Buyer and Seller shall jointly develop the Scheduled Outage plan and shall jointly revise such plan during each interval between each Scheduled Outage, if necessary. The projected Scheduled Outage plan is contained in Exhibit C, Projected

Scheduled Outage Plan. The Parties shall mutually agree upon the commencement date for each Scheduled Outage at least six (6) months prior to such Scheduled Outage's expected date of commencement. Should this plan be revised, changing the number or type of Program Parts, Non-Program Parts or Services to be provided or the type of Scheduled Outage(s) or the dates for which the Scheduled Outages are to be performed, such shall constitute a Change in scope and entitle Seller to a Change Order pursuant to Section 6.4, Minimum Operating Requirements. Buyer will schedule each Combustor Scheduled Outage, Hot Gas Path Scheduled Outage and Major Scheduled Outage for the Combustion Turbine at no longer than the applicable interval indicated in the then current version of Exhibit D, Service Bulletin 55004. Buyer will schedule each Steam Turbine Major Overhaul, Steam Turbine Limited Overhaul, and Steam Turbine Annual Safety Inspection Scheduled Outages as set forth in Exhibit C. Seller will be entitled to a Change Order in the event of such a change in the applicable Scheduled Outage interval.

Addendum 1A
Combustion Turbine Scheduled Outage Services Description

The following paragraphs become effective upon installation of the CIE hardware at the Period 2 Hot Gas Path Scheduled Outage.

The Parties agree that this Contract is designed to accommodate modifications to the operating interval and scope as technologies, techniques and procedures evolve over the Term. As such, Seller shall have the right to request modifications during the Term to the (i) Basis Interval, which upon installation of the CIE hardware at the Period 2 Hot Gas Path Scheduled Outage is not less than the earlier of 25,000 EBH or 1,200 ES ("Basis Interval") and (ii) the scope within the Basis Scope, which as of the Period 2 Hot Gas Path Scheduled Outage is the scope of work defined below ("Basis Scope").

Whenever Seller desires to modify the Basis Interval (such modification referred to as "Flex Interval") or Basis scope (such modification referred to as "Flex Scope"), then Seller must present such requested modification via the Scheduled Outage planning set forth in Exhibit A, Section 4.2. As part of such application, Seller must provide and present information to support the requested change(s) to Buyer. Such presentation may include Seller's methodology, evaluation criteria and assessment process used to define both the interval and/or scope, as applicable. Buyer shall review such request(s) in a timely manner. If Buyer desires to review specific technical information in connection with such Flex Interval or Flex Scope modification, then Seller shall make its relevant resources and documents that are approved for external distribution available to Buyer in a timely manner (to include hosting a review of documents at Seller's facility, if necessary), subject to the provisions of Section 16.1.1.

Similarly, if Buyer desires for Seller to make modifications to extend the Basis Interval, then Buyer shall present such request to Seller also via the Scheduled Outage planning process. Seller shall review such request(s) in a timely manner.

In no instance shall either Party knowingly request or implement modifications which would adversely affect the operation and performance of the Combustion Turbines. Adverse effects would include adverse impacts to safety, operation, efficiency and/or emissions or dynamics. Further, the Parties agree to work cooperatively to mitigate effects of such modifications to outage scheduling and implementation. The Parties agree to work together to reach mutual agreement on whether, and to what extent, a Flex Interval and/or a Flex Scope or modifications to extend the Base Interval shall be implemented. Under no circumstances will a Flex Interval, Flex Scope or modifications to extend the Base Interval be unilaterally implemented and neither Party shall unreasonably withhold its approval for such Flex Interval and/or a Flex Scope or modifications to extend the Base Interval, on condition that it will be reasonable to withhold consent for reasons consistent with generally accepted electric power industry practices.

For clarity, each type of Scheduled Outage is subject to revision pursuant to the application and modification procedure set forth herein. Other than the modification process described above, all other requested changes shall be implemented pursuant to Article 6.

After the Period 2 Hot Gas Path Scheduled Outage, Seller agrees to perform one borescope inspection on the Combustion Turbine, at Seller's expense, during each Period between the Hot Gas Path and Major Scheduled Outages (currently projected as Periods 3, 5, 7, 9 and 11 per Exhibit C, Projected Scheduled Outage Plan), limited to once per Period and a total of five (5)

borescope inspections in aggregate over the Term. Each Party will be responsible for performing, at its own expense, its obligations required pursuant to Exhibit A, Addendum 2A, Combustion Turbine Scheduled Outage Division of Responsibilities.

Basis Scope

Disassembly, inspections, and reassembly will be performed per applicable Seller field Service procedures. The following Scheduled Outage workscope description, defined as the "Basis Scope", illustrates a typical Scheduled Outage but may not reflect the actual workscope performed which may vary, at Seller's discretion, from this description. Seller will complete Seller's workscope using the level of effort necessary in accordance with prudent engineering practices. Under the Basis Scope, components which have reached their repair or replacement interval or were deemed not fit for continued service through the inspection process will be replaced as specified by the Contract.

COMBUSTOR INSPECTION

INLET SECTION

Disassembly

- Remove access cover on inlet manifold.

Inspection

- Visually inspect compressor inlet for damage and oil leaks.
- Visually inspect the inlet guide vanes and row #1 compressor blades.
- Measure the row #1 compressor blade radial clearances.

Assembly

- Install the inlet manifold access cover.

COMBUSTOR SECTION

Disassembly

- Remove the combustor access manway covers.
- Remove the following components:
 1. Fuel nozzles and piping
 2. Cross-flame tubes
 3. Combustor baskets
 4. Transitions
 5. Row #1 vanes

Inspection

- Visually inspect the fuel nozzles, cross-flame tubes, combustor baskets, and transitions for damage.
- Perform visual inspection of the rotor cooling air pipes in place.
- Perform visual inspection of the row #1 turbine vanes.
- Perform visual inspection of row #1 blades in place.
- Perform boroscope inspection of row #2 in place.

Assembly

- Install row #1 vanes

- Install and align replacement transitions per the applicable Service Bulletin and measure clearances.
- Measure and record transition outlet mouth clearances.
- Install replacement combustor baskets and check alignment to the transitions.
- Install replacement cross-flame tubes.
- Install replacement fuel nozzles.
- Install fuel nozzle piping.

EXHAUST SECTION

Inspection

- Perform visual inspection of the turbine exhaust including the strut shields.
- Visually inspect the row #4 turbine blades and measure the radial clearances.

Notes:

1. Document and map all defects, cracks, wear, etc. as found.
2. Document all as found clearances and as left clearances.
3. Document all parts by location and serial number as installed in the engine and removed from the engine.

HOT GAS PATH INSPECTION

INLET SECTION

Disassembly

- Remove access cover on inlet manifold.

Inspection

- Visually inspect compressor inlet for damage and oil leaks.
- Visually inspect the inlet guide vanes and row #1 compressor blades.
- Measure the row #1 compressor blade radial clearances.

Assembly

Install the inlet manifold access cover.

COMBUSTOR SECTION

Disassembly

- Remove the following components:
- Turbine cylinder cover
- Fuel nozzles and piping
- Cross-flame tubes
- Combustor baskets
- Transitions

Inspection

- Visually inspect the fuel nozzles, cross-flame tubes, combustor baskets, and transitions for damage.
- Visually inspect the rotor cooling air pipes in place.

Assembly

- Install and align replacement transitions per the applicable Service Bulletin.
- Measure and record the transition outlet mouth clearances.
- Install replacement combustor baskets and measure alignment to transitions.
- Install replacement cross-flame tubes.
- Install replacement fuel nozzles.
- Install fuel nozzle piping.

TURBINE SECTION

Disassembly

- Remove the turbine cooling air piping and cylinder cover.
- Unbolt and remove the upper half rows 2, 3, and 4 blade rings and interstage seals.
- Measure the turbine axial and radial clearances.
- Remove the lower half rows 2, 3, and 4 blade rings.
- Remove the rows 1, 2, 3, and 4 vanes.
- Remove the turbine blades.

Inspection

- Clean and NDE the turbine discs per the applicable Service Bulletin.

- Visually inspect the turbine ring segments.
- Clean and inspect the vanes per the applicable Service Bulletin.
- Clean and inspect the blades per the applicable Service Bulletin.
- Clean and visually inspect the turbine cylinder and piping.

Assembly

- Install replacement ring segments as needed.
- Install replacement vanes.
- Install replacement turbine blades.
- Install lower half rows 2, 3, and 4 blade rings and measure the axial and radial clearances.
- Install and bolt the upper half interstage seals and blade rings.
- Align the blade rings to the rotor.
- Install and bolt the turbine cylinder cover and piping.

EXHAUST SECTION

Inspection

- Perform visual inspection of the turbine exhaust including the strut shields.

Notes:

1. Document and map all defects, cracks, wear, etc., as found.
2. Document all as found clearances and as left clearances.
3. Document all parts by location and serial number as installed in the Combustion Turbine and removed from the Combustion Turbine.
4. Provide moment weight and sequence charts for all rotating parts (i.e., 1st stage blades) by serial number and location.

MAJOR INSPECTION INLET SECTION

Disassembly

- Remove upper half inlet manifold and inlet casing.
- Measure the inlet end journal bearing clearances and remove the bearing.
- Measure thrust bearing axial clearance and disassemble bearing.
- Measure air and oil seal clearances and remove seals.

Inspection

- Clean and visually inspect inlet manifold, inlet casing, and inlet guide vanes.
- Perform ultrasonic inspection of journal bearing babbitt.
- Perform ultrasonic inspection of thrust bearing babbitt.
- Perform visual and dimensional inspection of the oil and air seals.

Assembly

- Install air and oil seals and measure clearances.
- Install journal bearing and measure clearances.
- Assemble thrust bearing and measure clearance.
- Install and bolt upper half inlet casing and inlet manifold.

COMPRESSOR SECTION

Disassembly

- Remove upper half compressor covers.
- Measure compressor axial and radial clearances.
- Remove compressor diaphragms.

Inspection

- Clean and visually inspect compressor cylinders.
- Clean and visually inspect compressor diaphragms.

Assembly

- Install compressor diaphragms.
- Measure compressor axial and radial clearances.
- Install and bolt compressor cylinder covers.

COMBUSTOR SECTION

Disassembly

- Remove the following components:
- Fuel nozzles and piping.
- Combustor baskets.
- Transitions.
- Rotor cooling air pipes.

Inspection

- Visually inspect the combustor components for damage.
- Visually inspect the rotor cooling air pipes.

Assembly

- Install the rotor cooling air pipes.
- Install and align replacement transitions per the applicable Service Bulletin.
- Measure the transition outlet mouth clearances.
- Install replacement combustor baskets, and check alignment to the transitions.
- Install replacement cross-flame tubes.
- Install replacement fuel nozzles.
- Install fuel nozzle piping.

TORQUE TUBE SEAL HOUSING

Disassembly

- Remove the upper half torque tube seal housing.
- Measure the torque tube seal clearances.
- Remove the torque tube seals.

Inspection

- Clean and visually inspect the torque tube seals.
- Visually inspect the static seal segments.
- Clean and visually inspect the torque tube seal housing.

Assembly

- Install the torque tube seals and measure clearances.
- Install and bolt the upper half torque tube seal housing.

TURBINE SECTION

Disassembly

- Remove the turbine cooling air piping and cylinder cover.
- Unbolt and remove the upper half rows 2, 3, and 4 blade rings and interstage seals.
- Measure the turbine axial and radial clearances.
- Remove the lower half rows 2, 3, and 4 blade rings.
- Remove the rows 1, 2, 3, and 4 vanes.
- Remove the turbine blades.

Inspection

- Visually inspect the turbine ring segments.
- Clean and inspect the vanes per the applicable Service Bulletin.
- Clean and inspect the blades per the applicable Service Bulletin.
- Clean and visually inspect the turbine cylinder and piping.

Assembly

- Install replacement ring segments as needed.
- Install replacement vanes.
- Install replacement turbine blades.
- Install the lower half rows 2, 3, and 4 blade rings and measure the axial and radial clearances.
- Install and bolt the upper half interstage seals and blade rings.
- Align the blade rings to the rotor.
- Install and bolt the turbine cylinder cover and piping.

EXHAUST SECTION

Disassembly

- Remove the exhaust cylinder cover.
- Measure the exhaust end journal bearing clearances and remove the bearing.
- Measure the air and oil seal clearances and remove the seals.

Inspection

- Clean and visually inspect the exhaust cylinder including the struts and strut shields.
- Perform ultrasonic inspection of journal bearing babbitt.
- Perform visual and dimensional inspection of the oil and air seals.

Assembly

- Install air and oil seals and measure clearances.
- Install the journal bearing and measure the clearances.
- Install and bolt the exhaust cylinder cover.

ROTOR SECTION**Disassembly**

- Unbolt turbine/generator coupling and measure alignment.
- Rig and remove the rotor.
- Remove the turbine blades.

Inspection

- Clean and NDE the turbine discs.
- Clean and inspect the compressor blades in place per the applicable Service Bulletin.
- Clean and dimensionally inspect the bearing journals and thrust collar.
- Clean and inspect the coupling.

Assembly

- Rig and install rotor.
- Measure coupling alignment and bolt coupling.

Addendum 1B
SST-900RH Steam Turbine Scheduled Outage Services Description

Disassembly, inspections, and reassembly will be performed per applicable Seller field Service procedures. The following Scheduled Outage workscope description illustrates a typical outage but may not reflect the actual workscope performed which may vary, at Seller's discretion, from this description.

STEAM TURBINE ANNUAL SAFETY INSPECTION (ASI)

This consists of verification and testing of the Steam Turbine and generator instrumentation and safety systems. The purpose of this inspection is to verify the turbine-generator set protection equipment are working and will function when necessary.

- Participation and observation at shut down of the plant
- Visual inspection for leaks, noises or other deviations from normal turbine behavior.
- Shut down procedure
- Leakage test, control valves
- Stroke test, emergency stop valve and check valves
- Test of tripping devices (switches and transmitters)
- Function and logic test of hydraulic oil system
- Function and logic test of lube oil system
- Gear box inspection (through inspection covers)
- Visual inspection of earth grounding device

STEAM TURBINE LIMITED OVERHAUL (LO)

This inspection also incorporates the Steam Turbine Annual Safety Inspection. The Steam Turbine Limited Overhaul includes inspection of several components of the Steam Turbine and is listed below.

- Participation and observation at shut down of the plant
- Visual inspection for leaks, noises or other deviations from normal turbine behavior
- Shut down procedure
- Leakage test, control valves
- Stroke test, emergency stop valve and check valves
- Linearity test, control valves
- Test of tripping devices (switches and transmitters)
- Function and logic test of hydraulic oil system
- Function and logic test of lube oil system
- Turbine bearing inspection
- Perform borescope inspection of accessible areas
- Turbine coupling alignment check
- Turbine bearing housing to foundation alignment inspection
- Turbine rupture disk inspection
- Disassemble/clean & inspect/reassemble all turbine stop/control valves
- Disassemble/clean & inspect/reassemble bypass stop/control valve (if applicable)
- Disassemble/clean & inspect/reassemble non-return valve (if applicable)

STEAM TURBINE MAJOR OVERHAUL (MO)

This inspection also incorporates the Steam Turbine Annual Safety Inspection and the Steam Turbine Limited Overhaul. The Steam Turbine Major Overhaul includes inspection of several components of the Steam Turbine and is listed below.

- Participation and observation at shut down of the plant
- Visual inspection for leaks, noises or other deviations from normal turbine behavior.
- Shut down procedure.
- Dismantling procedure on HP and LP-turbine.
- Inspection and NDT of turbine casing, rotor, blades, diaphragms, guide vanes, bearings, couplings and sealings on turbine.
- Inspection and NDT of wheel, pinion, bearings on the gearbox.
- Inspection and NDT of main valves, inlet steam valves, extraction valves.
- Inspection of valves, actuators, strainers for gland- and leak-off system.
- Inspection of valves, pumps, motors, filters, coolers, servomotors, for lube- and hydraulic oil system.

Turning Gear

- Disassemble
- Clean and inspect
- Reassemble

Bearing Pedestals

- Check alignment of bearing housing
- Clearance check of bearing housing to seal rings
- Check anchor bolt pre-stress

Bearings

- Disassemble bearings – check bearing seats in bearing housing
- Inspect bearing guides for wear and binding
- Check bearing surfaces
- Ultrasonic test babbitt bonding
- Check bearing clearances
- Check seal rings
- Check condition and performance of shaft lift oil system
- Check condition and performance of temperature monitoring
- Reassemble bearings

Coupling

- Open coupling, inspect coupling bolts
- Check axial and radial alignment and runnout check
- Close coupling

Bypass Stop and Control Valves (If applicable)

- External inspection
- Steam side inspection, clearance check
- Perform NDE

Electric Hydraulic Actuators

- Function test
- Inspect cup spring packs
- Inspect for wear, binding, clearance check

Hydraulic Supply System

- Drain control Fluid tank
- Clean control-fluid tank
- Perform functional testing
- Record results

Non-return Valve (extraction and exhaust valves if applicable)

- External Inspection
- Steam side inspection, clearance check

Control and Governing System

- Functional check of control and governing system
- Functional test of mechanical, electrical, hydraulic and pneumatic equipment and calibration
- Check of internals

Turbine

- Open casing
- Remove rotor
- Cleaning and NDE on turbine internals (rotor, diaphragms)
- Inspection of casing

Addendum 2A
Combustion Turbine Scheduled Outage Division of Responsibilities

The following list specifies the key resources necessary to perform the Scheduled Outages and assigns responsibility for their supply, either to Seller or Buyer.

Outage Responsibility Checklist

		Seller	Buyer
1.	Review the scope of work, scheduling and planning with Owner's representative(s).	X	
2.	Provide field engineers, and specialists as required by the scope of work.	X	
3.	Provide qualified labor and perform the work with good safety and housekeeping practices.	X	
4.	Provide tools for workforce including transportation	X	
5.	Expendable materials	X	
6.	Clerical support/administrative support	X	
7.	Final field report	X	
8.	Dustblast equipment, material and services	X	
9.	NDE equipment, material and services	X	
10.	Compressed air		X
11.	Removal and replacement of insulation	X	
12.	Office trailer, change trailers, chemical toilets, potable water		X
13.	Telephone service		X**
14.	Cribbing for disassembled parts/scaffolding (as required)		X
15.	Cable slings, lifting devices and associated special tooling supplied with the original equipment order		X
16.	Operated crane & crane operators	X	
17.	Electrician for disconnection and connections		X
18.	Electrical power including: (120/480 VAC single phase and 480 VAC three phase up to 100 amps), service water, oxygen, acetylene gas, and lubricants as necessary		X
19.	Trash containers and disposal service		X
20.	Fire protection equipment/first aid facilities		X
21.	All asbestos removal and disposal		X
22.	Disposal of hazardous waste		X
23.	Forklifts & welding machine		X
24.	I&C technicians		X
25.	Painting		X

** Seller responsible for the phone bill

Addendum 2B
Steam Turbine Scheduled Outage Division of Responsibilities

The following list specifies the key resources necessary to perform the Scheduled Outages and assigns responsibility for their supply, either to Seller or Buyer.

Outage Responsibility Checklist

	Seller	Buyer
PRE-OUTAGE REVIEW		
Review the scope of work and provide a schedule	X	X
Review the availability of required outage parts including asbestos free gaskets and gasket material in Buyer's stock	X	X
Review inventory and condition of Buyer supplied Steam Turbine special tooling	X	X
Review masonry work requirements and provide recommendations prior to outage	X	X
Review lighting requirements and provide recommendations prior to outage	X	X
Review crane and scaffold requirements and provide recommendations for any supplemental cranes or scaffold	X	X
Review fork truck requirements and provide recommendations	X	X
Review gasses and lubricant requirements and provide recommendations	X	X
Review fire protection requirements and provide recommendations for any supplemental fire protection measures	X	X
Review storage and enclosure requirements and provide recommendations	X	X
Review Foreign Materials Exclusion (FME) program to assure all debris, tools and other materials do not enter or are left inside the equipment that may cause damage or operational problems.	X	X
Review Site for obstacles of interference and provide recommendations	X	X

	Seller	Buyer
OUTAGE STAFFING / SUPPORT		
Provide field engineers, technicians and specialists as required by the scope of work	X	
Provide qualified craft labor and perform the work with good safety and housekeeping practices	X	
Outage clerical support/administrative support	X	
Instrument and controls (I & C) technicians		X
Electrician(s) for electrical disconnect and reconnect		X
Certified crane and operator	X	
DOCUMENTATION		
Observe unit operation during shutdown and obtain data as necessary	X	X
Scheduling and planning	X	X
Detailed final report and recommendations	X	
Supply daily updates to the schedule manager and attend progress meetings with work updates during the outage	X	
MATERIAL & FACILITIES		
Provide tool set for the craft labor	X	
Bolt induction heating	X	
Expendable materials	X	
Non-destructive (NDE) testing service and material	X	
Supply rigging equipment (not to include special equipment supplied with Steam Turbine)	X	
Provide oxygen, acetylene gas, argon, hydrogen, carbon dioxide and lubricants as necessary.		X
Supply tooling (except as noted below) including bolt-heating equipment, slug wrenches, chain falls	X	
Provide all turbine / generator tools that were originally supplied by the original equipment manufacture for these units. These include jack bolts, major lifting cables, lifting beam, hydrogen cooler lifting brackets, generator skid pan, shoes and hydrogen seal housing brackets, cable slings and lifting devices		X
Washroom facilities, portable toilets and potable water		X
Office trailer and equipment, change trailers, and telephones		X**
Telephone service and high-speed internet connection		X
Provide turbine floor protection when required to prevent damage during material storage and work activities.		X
Overhead and portable crane(s)	X	
Scaffolding materials and erection		X

Plant machine facilities and operators, if required		X
Fork trucks		X
Compressed air at 100 psi, 480 and 120 volt outlets, phone lines to office facilities, non-potable water source, trash containers outside of building and parts storage trailer		X

	Seller	Buyer
SUPPORT SERVICES		
Provide start-up and balancing support (performed on a 1-10-6 shift arrangement basis)	X	
Dustblast equipment, material and services for cleaning turbine components	X	
Arc welding machine(s), if required	X	
Storage and work enclosures for disassembled components	X	
Transport (if required) of disassembled parts from/to T/G to/from work/storage areas.	X	
Support the moving, loading in and out, prepping for shipment and receiving of equipment for all the turbine work		X
Pre-inspection of the overhead crane(s) as required		X
Operations for tagging, draining, filling and testing of equipment		X
Removal and installation of acoustical enclosure, as required	X	
Removal and replacement of non-asbestos insulation blankets	X	
All asbestos insulation removal and disposal		X
Disposal of hazardous and non-hazardous waste including material containing asbestos, if encountered		X
Removal and disposal of lead paint		X
Trash containers and disposal service		X
Oil flush program (This service can be provided by Seller upon request on time & material basis.)	X	
Electrical power including: (120/240V single phase and 240/480, three phase)		X
Area lighting		X
Check and calibrate gauges, instrumentation and thermocouples associated with the turbine-generator		X
Fire protection equipment (existing plant equipment)		X
Repack, repair or replace small hand valves		X
Repaint as necessary		X
Weather protection		X

On-site first aid facilities and ambulance service		X
Sufficient and convenient lay down, cleaning, storage and work areas in close proximity to T/G which isolates the Seller work area from routine plant activity		X
Removal of any obstacles of interference outside of the control of Seller that may be encountered prior to or during the outage which may hinder or prevent Seller from performing the work outlined in this offer		X

In Addition to General Section		
Rotor stands available for the LP rotor and one set of power rollers. Cribbing and pallets for disassembled parts	X	
Condenser protection	X	

****Seller responsible for the phone bill.**

Addendum 3
Scope of Program Management Services

Seller will provide Program Management Services throughout the Contract's Term, commencing twelve (12) months prior to the Project's scheduled date of First Fire.

The Program Management Services will include:

1. Providing contacts for communication between Seller and the Buyer's designated representatives (Operation and Maintenance staff) for the major maintenance of the plant.
2. Working with the Seller's inventory and manufacturing personnel (located at Seller factories throughout the world) to expedite Program Parts and Miscellaneous Hardware as required to facilitate the success of each Scheduled Outage.
3. Maintaining a parts tracking database on Program Parts.
4. Communicating and coordinating with the plant purchasing agent regarding warehouse stock of Program Parts and Miscellaneous Hardware, delivery and shipment of Program Parts and Miscellaneous Hardware.
5. Providing final review of Program Parts and Miscellaneous Hardware inventory prior to Scheduled Outages to verify that all required Program Parts and Miscellaneous Hardware are on Site.
6. Initiating and resolving product warranty claims to the best interest of all Parties involved.
7. Initiating, determining the status, and verifying completion of (E-FAR's) regarding plant issues.
8. Providing technical support, assistance, and evaluation when operating or maintenance problems occur. Assisting in areas of technical issues and helping to facilitate resolution.
9. Communicating to Buyer's designated representative technical bulletin updates as published.
10. Delivering to Buyer's designated representative outage reports and repair reports after Scheduled Outages.
11. Providing sourcing assistance for procurement of Siemens Energy, Inc. parts.

QUARTERLY DELIVERABLES

1. Updated Projected Scheduled Outage Plan if requested
2. Issues summary report indicating maintenance issues and outage findings at other similar frame plants
3. Updated Seller's section of the Schedule Outage Plan
4. Program Parts order and delivery status report
5. Program Parts status report

Exhibit B
Combustion Turbine Program Parts List

Baseline 12.5k Program Parts Table

Baseline Program Parts
Combustor Baskets
Fuel Nozzles
Transitions
Transition Seals
Ring Segments – Row 1
Ring Segments – Row 2
Ring Segments – Row 3
Ring Segments – Row 4
Row 1 Blade
Row 1 Vane
Row 2 Blade
Row 2 Vane
Row 3 Blade
Row 3 Vane
Row 4 Blade
Row 4 Vane
Compressor Blades
Compressor Diaphragms
Diaphragm Seals

Combustion Turbine Program Parts to be changed for 25k EBH/ 1200 ES Basis intervals
(Combustion Turbine Interval Extension Program Parts)

CIE Program Parts
Baskets
Pilot Nozzles
Support Housing
Transitions
Transition Seals

Exhibit C
Projected Scheduled Outage Plan

The projected Scheduled Outage plan below is based on the current revision of the Service Bulletins as provided in Exhibit D. Combustion Turbine Scheduled Outages will be performed as required by the Contact, subject to the application and modification process set forth in Exhibit A, Addendum 1.

Combustion Turbine	
Period	Scheduled Outage Type
1	CI
2	HGP*
3	
4	Major
5	
6	HGP
7	
8	Major
9	
10	HGP
11	
12	Major

* Installation of Combustion Turbine Interval Extension Program Parts at Period 2 HGP

Steam Turbine Scheduled Outages will be performed in conjunction with the corresponding Combustion Turbine Scheduled Outage as set forth below; should a change to the Service Bulletin adversely affect the Buyer, the Parties will negotiate changes to the Contract in good faith.

Steam Turbine	
Period	Scheduled Outage Type
1	ASI
2	LO
3	ASI
4	MO
5	ASI
6	LO
7	ASI
8	MO
9	ASI
10	LO
11	ASI
12	MO

Exhibit C (continued)

Outage Definitions:

CI – Combustor Scheduled Outage

HGP – Hot Gas Path Scheduled Outage

Major – Major Scheduled Outage

ASI – Steam Turbine Annual Safety Inspection

LO – Steam Turbine Limited Overhaul

MO – Steam Turbine Major Overhaul

**Exhibit D
Service Bulletin**

Service Bulletin 55004

Prior to installation of Combustion Turbine Interval Extension Program Parts, the current Service Bulletin for the Combustion Turbine is Service Bulletin 55004. Service Bulletin 55004 is attached separately.

Service Bulletin SB4-11-0018-GT-EN-01

Upon installation of Combustion Turbine Interval Extension Program Parts into the Combustion Turbine the applicable Service Bulletin will be Service Bulletin SB4-11-0018-GT-EN-01.

Service Bulletin SB4-11-0018-GT-EN-01 is attached separately and is modified by the following:

Exhibit D Addendum 1: Service Program Inspection Intervals (Basis Intervals)

Exhibit D (continued)
Addendum 1

Service Program Inspection Intervals

This Addendum 1 to Exhibit D provides recommendations for gas turbine inspection intervals for certain SGT6-5000F and 501F units. The inspection intervals provided herein are particular to Buyer's Combustion Turbine and are to be used in lieu of the minimum interval requirements outlined in Exhibit SB4-11-0018-GT-EN. Calculation methodology and inspection scope recommendations are as provided in such SB SB4-11-0018-GT-EN.

Table 1. Inspection Interval Summary (to be applied in place of the inspection intervals provided in SB4-11-0018-GT-EN).

Inspection Type	Interval
Hot Gas Path (includes the Combustor Inspection workscope)	25,000 EBH or 1200 ES
Major	50,000 EBH or 2400 ES
Rotor Assessment	See Note 2 below.

Notes

1.) EBH and ES are to be calculated using the service counter calculation parameters/counters/methods provided per in SB4-11-0018-GT-EN.

2.) Specific Rotor scope and interval will be based on rotor design and application. Consult your Siemens Service representative for details.

Exhibit E Payment Schedule

Pricing Schedule:

1. Program Initialization Fee:

Within 30 Days of Effective Date Seller shall invoice Buyer and Buyer shall pay to Seller a Program Initialization Fee in the amount of one million five hundred thousand Dollars (U.S. \$1,500,000.00)

2. Fixed Annual Fee:

Seller shall invoice Buyer and Buyer shall pay to Seller a "Fixed Annual Fee" of one hundred thousand Dollars (U.S. \$100,000.00) to be paid in advance of each Calendar Year, beginning on June 1, 2012.

3. Variable Fee:

Seller shall invoice Buyer and Buyer shall pay to Seller a Variable Fee of five hundred twenty one Dollars per Equivalent Base Hour (US \$521.00/EBH).

The "Variable Fee" is calculated and invoiced based upon the Equivalent Base Hours (EBH) accumulated by the Combustion Turbine. Commencing as of First Fire with respect to the Combustion Turbine, at the end of each calendar quarter thereafter for such Combustion Turbine (or at the time of a Scheduled Outage), Seller shall invoice Buyer for the Variable Fee (per above), based on the actual operation of such Combustion Turbine during such calendar quarter (or during such calendar quarter up to the commencement of the next Scheduled Outage).

True Up of Variable Fees:

1. At the commencement of each Hot Gas Path Scheduled Outage, Seller, notwithstanding other amounts invoiced under this Contract, will invoice Buyer from First Fire or from the commencement of the first Major Inspection, each as applicable to the commencement of the Hot Gas Path Scheduled Outage, the Variable Fee multiplied by twenty-five thousand (25,000) EBH.

2. At the commencement of each Major Scheduled Outage, Seller, notwithstanding other amounts invoiced under this Contract, will invoice Buyer from the most recent Hot Gas Path Scheduled Outage to the Major Scheduled Outage, the Variable Fee multiplied by twenty-five thousand (25,000) EBH.

Variable Fee after Period 2 Hot Gas Path Scheduled Outage

1. Variable Fee After Period 2 Hot Gas Path Scheduled Outage.

Beginning upon completion of installation of the CIE hardware at the Period 2 Hot Gas Path Scheduled Outage, Seller shall invoice Buyer and Buyer shall pay to Seller a Variable Fee (subject to escalation as provided below in this Exhibit E) of five hundred twenty-one Dollars per Equivalent Base Hour (US \$521/EBH) or ten thousand eight hundred fifty-four Dollars and seventeen cents per Equivalent Start (US \$10,854.17/ES), depending on the actual mode of operation, as described below.

The "Variable Fee" is calculated and invoiced based upon the Equivalent Base Hours (EBH) or Equivalent Starts (ES) accumulated by the Combustion Turbine during each calendar quarter. Commencing as of the Period 2 Hot Gas Path Scheduled Outage, at the end of each calendar quarter thereafter (or at the time of a Scheduled Outage), Seller shall invoice Buyer for the Variable Fee (per above), based on the actual operation during such calendar quarter (or during such calendar quarter up to the commencement of the next Scheduled Outage).

For invoicing purposes, the mode of operation is based on the most recent completed calendar quarter. A ratio is calculated by taking the total EBH accumulated over the previous calendar quarter divided by the total ES accumulated over the same time period. If the EBH/ES ratio exceeds 21, Seller will invoice based on EBH. If the EBH/ES ratio is equal to or below 21, Seller will invoice based on ES.

The Variable Fee will be calculated in accordance with the following:

Where:

X = Ratio of accumulated EBH to accumulated ES

Y = U.S. \$521/EBH

Z = U.S. \$10,854.17/ES

Calculation of the Variable Fee:

When X is > 21 , then the Variable Fee shall equal the amount of EBH accrued in that calendar quarter multiplied by Y.

When X is ≤ 21 , then the Variable Fee shall equal the amount of ES accrued in that calendar quarter multiplied by Z.

Example calculation of the Variable Fee for different values of X:

(i)

$X = \text{EBH/ES} = 32$

EBH accrued in that calendar quarter = 1,800

ES accrued in that calendar quarter = 56

Variable Fee = $(1,800) * (\$521) = \$937,800$

(ii)

$X = \text{EBH/ES} = 20$

EBH accrued in that calendar quarter = 1,400

ES accrued in that calendar quarter = 70

Variable Fee = (70)*(\$10,854.17) = \$759,791.90

2. True Up of Variable Fees after Period 2 Hot Gas Path Scheduled Outage.

a. If the Hot Gas Path or Major Scheduled Outage is scheduled based on ES per Exhibit C, at the commencement of each Hot Gas Path or Major Scheduled Outage, Seller, notwithstanding other amounts invoiced under this Contract, will invoice Buyer from the Period 2 Hot Gas Path Scheduled Outage or from the prior Hot Gas Path or Major Inspection, each as applicable, to the commencement of the Hot Gas Path or Major Scheduled Outage, the ES Variable Fee multiplied by the greater of the total ES accumulated or 1,200 ES, and credit to Buyer any Variable Fees that have been paid by Buyer since the last Hot Gas Path Scheduled Outage or Major Scheduled Outage.

b. If the Hot Gas Path or Major Scheduled Outage is scheduled based on EBH per Exhibit C, at the commencement of each Hot Gas Path or Major Scheduled Outage, Seller, notwithstanding other amounts invoiced under this Contract, will invoice Buyer from the Period 2 Hot Gas Path Scheduled Outage or from the prior Hot Gas Path or Major Inspection, each as applicable, to the commencement of the Hot Gas Path or Major Scheduled Outage, the EBH Variable Fee multiplied by the greater of the total EBH accumulated or 25,000 EBH, and credit to Buyer any Variable Fees that have been paid by Buyer since the last Hot Gas Path Scheduled Outage or Major Scheduled Outage.

Escalation:

Payments will be due net thirty (30) Days from date of each invoice. All payments shall be in U.S. Dollars, escalated at the time of invoice according to the Escalation Factor.

**Exhibit F
Not Used**

[This Exhibit Intentionally Left Blank]

Exhibit G
Cancellation Schedule

The cancellation amount owed by Buyer to Seller, pursuant to Section 12.6 of the Contract, shall be equal to twelve percent (12%) of the remaining Fees that Buyer would have owed to Seller if the third Major had been performed on the Combustion Turbine based on the predominant mode of operation. Such cancellation amount will be calculated from the date of termination of the Contract.

Exhibit H
Change Order Format

CHANGE ORDER NO. _____

Contract: _____

Effective Date: _____

Buyer: _____

Seller: _____

1. **Introduction.** This Change Order No. _____ (this "Change Order") is agreed to pursuant to that certain Amended and Restated Program Parts, Non-Program Parts, Miscellaneous Hardware, Program Management Services and Scheduled Outage Services Contract, dated November 1, 2014 (the "Contract") by and between Siemens Energy, Inc. ("Seller") and Northern California Power Agency ("Buyer"). Capitalized terms used but not defined herein shall have the meaning given them in the Contract. This Change Order as submitted by one Party to the other shall constitute a request for a Change Order. Upon its countersignature in the space provided below, this Change Order shall constitute a Change Order within the meaning of the Contract.

2. **Scope of Change.** Describe in pertinent detail (a) the addition or removal of a Program Part, Non-Program Part or Miscellaneous Hardware Item from the Contract, (b) a change to the Services, (c) a change in schedule of Program Parts, Non-Program Parts or Services, (d) any other change to the workscope obligations. Attach any necessary documentation as Attachment 1 hereto, including any revisions to Exhibits to the Contract.

(a) _____

(b) _____

(c) _____

(d) _____

3. **Timing.** Describe in pertinent detail the timing of implementation of this Change Order. Attach any necessary documentation as Attachment 2 hereto, including any revisions to Exhibits to the Contract.

4. **Payment and Term.** Describe in pertinent detail the effect of this Change Order on the Fees and/or the Term. If payment is to be made by other than an adjustment to the

Fees, specify. Attach any necessary documentation as Attachment 3 hereto, including any revisions to Exhibits to the Contract.

5. **Other Terms and Conditions.** Except as otherwise specifically provided in this Change Order, all other terms and conditions of the Contract shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties, intending to be legally bound, have caused this Change Order No. ___ to be executed by their duly authorized representatives to be effective as of the date first above written.

[Seller]

[Buyer]

By: _____
Name:

By: _____
Name

Title:

Title:

Date:

Date:

Exhibit I
Natural Gas, Fuel Oil and Water Specifications

To Be Attached.

SIEMENSSiemens Power Generation
A Siemens Company**ENGINEERING SPECIFICATION**

Title	FUEL GAS SPECIFICATION
Titel	

ZDX555	DC01	KKS MBP CNS 2500	01	UNIO 3705971
Proj. Code/Proj.-Kennz.	Doc./JA	Contents Code/Inhaltskennzeichen	Count no./Zähl-nr.	

		Confidential	Vertraulich
Original / Ursprung	Module Coordinator / Modulverantwortlicher	Handling	Handhabung

See Section 2.0 APPLICABLE DOCUMENTS	3
Related Documents/Zugehörige Dokumente	Review Level

	Department	Dept. Code	Name	Signature	Date
Prepared by	Operating Plants Technical Support	E96P5	Fred W. Shoemaker, Engineer	<i>F W Shoemaker</i>	2006.08.24
Reviewed by	Environmental Engineering	E96P2	Ramesh Kagolanu, Manager	<i>J M Haywood</i> <i>For R Kagolanu</i>	2006.08.24
Reviewed by	BOP Fluid Systems & Mechanical Components	E9632	Abol Moulavi, Manager	<i>A Moulavi</i>	2006.08.24
Reviewed by	Thermal Component Engineering	E9631	David Boyce, Manager	<i>D Boyce</i>	2006.08.24
Reviewed by	Operating Plants Technical Support	E96P5	Patrick Solomon, Manager	<i>P M Solomon</i>	2006.08.24
Approved by	Plant Integration	E96P	George Schott, Manager	<i>G A Schott</i>	2006.09.01

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Title: FUEL GAS SPECIFICATION	ZDX555-DC01-MBP-2500-01
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Project: E9 GENERIC DOCUMENTS	Issued: 2006-09-01
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Project: E9 GENERIC DOCUMENTS			Issued: 2006-09-01
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Siemens Power Generation, Orlando, FL	Rev. 013	Type: ESP	Page 3 of 22

1. PURPOSE

The purpose of this specification is to define the properties of gaseous fuels which are acceptable for use in Siemens Power Generation (SPG) gas turbines used in large scale power applications, including combined cycle plants.

2. SCOPE/APPLICABILITY

The information presented in this document applies to the SPG gas turbine frames listed below:

SGT-1000F

SGT6-2000E(6), SGT5-2000E(3),(6),(7)

SGT6-3000E, SGT5-3000E(2)

SGT6-4000F(2),(4), SGT5-4000F(2),(4)

SGT6-5000F(2),(3)

SGT6-6000G(M),(1)

This document describes specific limits that are placed on fuel gas properties to ensure operability and maintainability of the gas turbine equipment. The fuel supply must meet these limits at the ECONOPAC boundary. The ECONOPAC Boundary is defined as follows:

(a) For SGT6-3000E, SGT6-5000F(2),(3) and SGT6-6000G(M),(1) premix combustion systems, the ECONOPAC boundary is defined as the inlet flange to the fuel gas filter/separator(s).

(b) For all other combustion systems, the ECONOPAC boundary is defined as the inlet to the ECONOPAC fuel gas strainer.

3. ABBREVIATIONS AND DEFINITIONS

API	American Petroleum Institute
ASTM	American Society for Testing and Materials
FBN	Fuel Bound Nitrogen
GI	Gas Index
GT	Gas Turbine
HHV	Fuel Gas Higher Heating Value
HRSG	Heat Recovery Steam Generator
LHV	Fuel Gas Lower Heating Value
NO _x	Nitrogen Oxide(s)
SCR	Selective Catalytic Reduction
SPG	Siemens Power Generation
Wo	Wobbe Index

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4. PROCEDURE

Fuel gases intended for use in SPG gas turbines shall be verified to meet the requirements specified in this document. If no limits are listed for a fuel property in question, SPG must be consulted for further information on a case-by-case basis. In cases where there are deviations from the requirements specified in this document, SPG must be consulted and approval obtained in writing. A chemical analysis of the fuel must be submitted to SPG for review and approval prior to operation of the gas turbine. Ultimately, only those fuels stipulated in the supply contract shall be permissible for operation in the gas turbines. Operation with fuels other than those contractually stipulated is not permitted.

4.1 GENERAL

SPG gas turbines are equipped with either a diffusion flame or premix combustion system. The diffusion flame combustion system can be applied to a variety of fuels ranging from those with low energy content, such as coal gas, to those with high energy content, such as natural gas, butane, or propane. Gas mixtures with a widely varying chemical content, such as refinery waste gases, have also been successfully used. The premix combustion system has more stringent fuel requirements than the diffusion flame system. However, with premix combustion it is possible to achieve lower NO_x emissions without requiring steam or water injection when burning gas fuel.

For satisfactory operation, the fuel must meet requirements as described in Appendix 1 and Appendix 2. Use of some fuels may require equipment modification due to properties not discussed in this document. For this reason, SPG must review all fuels being considered for use in any SPG gas turbine.

4.2. ENERGY CONTENT

Energy content shall be reported on the basis of both lower and higher heating values. This will be done on both a volumetric (e.g. kJ/Nm³, Btu/scf) and mass (e.g. MJ/kg, Btu/lb) basis. Fuel gas heating value can be calculated based on the gas constituents using standard heating value reference data for these constituents. From these calculations, a "design value" for the fuel energy content must be selected. This value should lie between the maximum and minimum limits as specified in Appendix 1.

4.2.1 Wobbe Index

The lower Wobbe Index (henceforth referred to as Wobbe Index) is defined as the ratio of the lower heating value of the fuel to the square root of the specific gravity of the fuel at reference temperature and pressure:

$$Wo = \frac{LHV_{vol}}{\sqrt{SG}}$$

Where:

Wo = Wobbe Index

LHV_{vol} = volumetric lower heating value at reference temperature and pressure

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SG = ratio of fuel gas density to the density of air at reference temperature and pressure

Reference temperature and pressure for calculation of Wo are 0°C and 101.325 kPa.

A specific standard burner and system design is specified for the following gas turbine frames. SPG must be consulted on a project specific basis for the appropriate Wo range.

SGT-1000F

SGT6-2000E(6), SGT5-2000E(3),(6),(7)

SGT5-3000E(2)

SGT6-4000F(2),(4), SGT5-4000F(2),(4)

Once a design fuel is selected for these gas turbine frames, the Wo of that fuel can be allowed to fluctuate during operation; $\pm 5\%$ for premix system or $\pm 15\%$ for diffusion system, provided that at maximum variance the fuel LHV still lies within the acceptable range. In the event of larger fluctuations, SPG must be consulted for further details and any requisite modification of parts.

A specific standard burner and system design is also specified for the following gas turbine frames. SPG must be consulted on a project specific basis for the appropriate Wo range

SGT6-3000E

SGT6-5000F(2),(3)

SGT6-6000G(M),(1)

Once a design fuel is selected for these gas turbine frames, the Wo of that fuel can be allowed to fluctuate during operation as per the limits specified in Appendix 1, provided that at maximum variance the fuel LHV still lies within the acceptable range. In the event of larger fluctuations, SPG must be consulted for further details and any requisite modification of parts.

4.3 PRESSURE

The required fuel gas supply pressure is the pressure needed at the ECONOPAC fuel gas system boundary in order to meet the maximum volumetric fuel flow needed by the gas turbine. The required fuel pressure depends upon site specific parameters such as fuel gas composition, fuel gas temperature, fuel gas density, site ambient temperature, site elevation, unit frame size, combustion system, and options such as steam injection for power augmentation. When determining the required fuel pressure, fuel flow demands while operating under a wide range of conditions are considered, including but not limited to the following:

Lowest ambient temperature (with consideration for maximum load limit)

Maximum water or steam injection (with consideration for maximum load limit)

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Minimum fuel lower heating value (LHV)

Maximum fuel gas temperature

The required fuel gas pressure is considered the "design value" for a given gas turbine unit at a specified site and applies to all operating conditions for that gas turbine. It is required for various items in the fuel gas system, and it is entered into the gas turbine control system. Specified tolerances apply to this fuel pressure, per Appendix 1. In addition, regulators shall have sufficient provisions for deadband, gain, and dampening adjustment to tune out any critical oscillations that may occur between regulators and the gas turbine system demand.

4.4 TEMPERATURE

The maximum and minimum temperature limits for the fuel gas depend upon the fuel gas composition and the fuel gas supply pressure. The fuel gas must be at a temperature sufficiently higher than the fuel gas and water dew point temperatures so that the fuel fed to the SPG supplied filter/separator is free of any constituents in liquid state. See Section 4.5 for further details on limits associated with fuel gas and water dew point temperatures.

The fuel gas may be heated to meet these dew point limits and/or to improve turbine efficiency. Maximum fuel gas temperature is limited depending on composition and frame and must be assessed by SPG. Increasing the fuel gas temperature increases nozzle fuel jet velocities which affects the required fuel gas supply pressure. This can adversely affect emissions and combustor stability. Fuel gas temperature may need to meet certain limits during gas turbine startup for some configurations (See Appendix 1). Any plans for fuel heating above the limits in Appendix 1 or for fuel temperatures less than 5°C must be reviewed by SPG in advance.

4.5 CONDENSABLE LIQUIDS IN THE FUEL

Liquid carryover from the fuel to the gas turbine can be detrimental to gas turbine and auxiliary parts life. Therefore, the fuel gas as fed to the SPG supplied filter/separator at the gas turbine must be free of any constituents in liquid state. This requires that the fuel gas temperature must exceed the measured dew point temperature of the fuel by the values specified in Appendix 1. If the dew point cannot be measured, it must be calculated based on chromatographic analysis including all hydrocarbons up to, and including, hydrocarbons of C₁₄. The use of knockout scrubbers followed by traps, separators and heaters in the fuel supply system can further assure that all traces of liquid hydrocarbons and liquid water are excluded from the fuel system. Design considerations should be given to minimizing long runs of pipe between the gas conditioning equipment and the SPG supplied filter/separator. Proper liquid level alarms and shutdown protection are also recommended. In projects with a fuel gas compressor, carryover of lubricating oil is possible. A gas chromatograph alone may not detect lube oil. Therefore liquids from the separator drains should have an extended fuel analysis performed to test for lubricating oil.

It is possible for liquids with high boiling temperatures to be present in the fuel supply system, for example, lubricating oil from gas compressors. Much of this material will be removed by the same gas filter/separator used in removing lower boiling liquids. Limits for carryover of this material are included in Appendix 2.

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4.6 FUEL COMPOSITION

Some fuel components of particular interest are discussed in this section. Appendix 1 and Appendix 2 combined contain the complete specification of limits on a natural gas fuel composition. In some cases, additional limits may apply that are not presented in this document. SPG must review all fuels to be considered for use in any SPG gas turbine. A chemical analysis of the fuel is required to determine its acceptability for use.

4.6.1 Hydrocarbons

The presence of hydrocarbons heavier (having a greater molecular weight) than methane (CH_4) may result in higher emissions and can adversely affect operability of the gas turbine. The greater the amount of these higher hydrocarbons, the lower the auto-ignition temperature will be. This can lead to combustion instabilities such as flashback. The measures required to avoid these effects may result in greater production of NO_x emissions. A fuel supply with a widely varying content of higher hydrocarbons will require even more extensive measures to maintain stable combustion. SPG will review all fuels on a case-by-case basis for higher hydrocarbon content and evaluate the effect on emissions and operability.

4.6.1.1 Hydrocarbon Considerations for Specific GT Frames – Part A

This section applies to the following gas turbine frames only:

SGT-1000F

SGT6-2000E(6), SGT5-2000E(3),(6),(7)

SGT5-3000E(2)

SGT6-4000F(2),(4), SGT5-4000F(2),(4)

SPG should be consulted in the case of fuels containing greater than 20% by volume higher hydrocarbons or greater than 10% by volume of higher hydrocarbons (excluding ethane). Ethane (C_2H_6) contents of up to a maximum of 15% by volume are permissible and do not require the approval of SPG.

Fuels with acetylene (C_2H_2) content greater than 0.1% by volume shall only be used in diffusion flame combustion systems. Use of fuels containing more than this amount in premix combustion systems would risk destruction of the burners due to reactions in the premix piping.

4.6.1.2 Hydrocarbon Considerations for Specific GT Frames – Part B

This section applies to the following gas turbine frames only:

SGT6-3000E

SGT6-5000F(2),(3)

SGT6-6000G(M),(1)

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Diffusion flame combustion systems for these gas turbine frames can operate without restrictions on the hydrocarbons present in the fuel. See Appendix 1 for the hydrocarbon limits associated with premix combustion systems for these gas turbines.

4.6.2 Olefins

The presence of olefins, hydrocarbons of the form C_nH_{2n} , may lead to coking of the fuel nozzles. This is of particular concern in premix combustion systems because of the small gas port sizes. Fuel heating can increase the tendency for coking to occur and is not recommended for gas turbines burning fuels with a high olefin content.

4.6.3 Oxygen

Oxygen (O_2) content must be limited in fuels containing olefins because the presence of oxygen will increase the coking reaction discussed in Section 4.6.1.3. See Appendix 1 for the limits associated with specific gas turbine and combustion system configurations.

4.6.4 Hydrogen

4.6.4.1 Hydrogen Limits for Specific GT Frames – Part A

This section applies to the following gas turbine frames only:

SGT-1000F

SGT6-2000E(6), SGT5-2000E(3),(6),(7)

SGT5-3000E(2)

SGT6-4000F(2),(4), SGT5-4000F(2),(4)

Fuels with a hydrogen (H_2) content of 1% or less may be used in diffusion flame and premix combustion systems. Use of fuels containing more than 1% hydrogen in premix combustion systems could risk destruction of the burners due to reactions in the premix piping. Fuels with a hydrogen content greater than 1% but less than 10% by volume shall only be used in diffusion flame combustion systems. SPG must be consulted and approval obtained in cases where there are deviations from these requirements.

4.6.4.2 Hydrogen Limits for Specific GT Frames – Part B

This section applies to the following gas turbine frames only:

SGT6-3000E

SGT6-5000F(2),(3)

SGT6-6000G(M),(1)

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For diffusion flame combustion systems, the maximum amount of hydrogen (H_2) allowable in a fuel is 40% by volume, provided all other fuel requirements are met.

For premix combustions systems, the maximum limit of hydrogen content is 8.5% by volume, provided all other fuel requirements are met.

Fuels exceeding these limits may be permitted only by special agreement with SPG. This will depend upon such factors as firing temperature, emissions requirements, and possible steam injection.

Note: NO_x emissions for fuels with high levels of molecular hydrogen may be higher than for standard natural gas. This is most evident with diffusion flame combustors.

4.6.5 Fuel Bound Nitrogen

Fuel bound nitrogen (FBN) may be present in some fuels in the form of ammonia (NH_3) or hydrogen cyanide (HCN). FBN is readily converted to nitrogen oxides (NO_x) during the combustion process. The amount of NO_x formed due to FBN may be determined in accordance with 40 CFR 60, Subpart GG, Section 60.332(a)(3) or as in SIGAMA H.3. Maximum acceptable FBN content of a fuel is dictated by the emissions requirements of the specific application. In the case of stringent NO_x requirements, fuels containing FBN must be reviewed.

4.7 CONTAMINANTS

Contaminants from all sources must be considered when checking the limits defined in this specification, including but not limited to non-fuel sources such as compressor inlet air, steam/water injection for NO_x control or power augmentation, and water for evaporative coolers. The total of the fuel-borne and non-fuel borne contaminants must not exceed the specified limits. The equation given in Section 4.7.7 must be used to determine the effective contaminant concentration. Contaminant limits are given in Appendix 2.

The compressor inlet air can greatly increase the level of impurities entering the hot gas path. For gas turbine installations where the total of the concentrations of sodium, potassium, vanadium, and lead, in the inlet air are greater than those levels specified in this document, additional air filtration units are required. When evaluating the amount of air contaminants, care should be taken to determine the contaminants that will enter the turbine, after all filtration is complete. An accurate assessment of the filtration efficiency is required.

Water and steam employed for evaporative cooling, emissions control, or power augmentation can also increase the level of impurities entering the hot gas path. Water/steam borne solids are assumed to oxidize during the combustion process and result in added particulate emissions. When evaporative coolers are employed, samples of the air should be taken downstream of the equipment. Thus, the contaminants in the water being used by the evaporative cooler will be accounted for in the air analysis.

Sodium, potassium, vanadium, and lead induce corrosion of metals in the hot gas path of the turbine, and calcium causes deposits that may be difficult to remove. This results in degradation of performance. Special coatings and materials may be selected to minimize corrosion of components in the turbine hot gas path. Also, the unit may be derated or operated at partial load to further minimize the effects of certain trace elements. However, to meet expected parts life and to sustain

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good performance, it is required that the total of these trace elements (from all sources), as corrected to a fuel equivalent basis, be held within the limits specified in Appendix 2.

4.7.1 Particulates

Particulates are limited to minimize clogging of filters and prevent erosion and deposition on the components in the turbine and the compressor. Large particles will cause erosion on the trailing edges of airfoils and ceramic coatings. Airfoil cooling effectiveness could be affected if erosion is severe. Small particles will deposit onto the leading surfaces of the airfoils and restrict the flow path. If deposition is severe, performance will deteriorate, and the compressor surge margin will diminish. Particulate level limitation becomes especially crucial when using coal gases.

4.7.2 Sodium and Potassium

The behavior of sodium (Na) and potassium (K) in the gas turbine is very similar to that of vanadium (V). During passage through the hot gas path, these elements can combine with sulfur and/or vanadium to form highly corrosive compounds.

4.7.3 Calcium

Calcium can lead to hard and tenacious deposits, such as anhydrite (CaSO_4), which are neither self-spalling when the gas turbine is shut down, nor readily removable by water washing of the turbine. These deposits will degrade performance and may also abrade turbine coatings.

4.7.4 Sulfur and Hydrogen Sulfide

Elemental sulfur (S) is not permitted at any level. If elemental sulfur were present in a gas fuel, it is possible that deposition could occur in the fuel system restricting the safe and efficient operation of the gas turbine. Using gas fuels which contain sulfur compounds may result in sulfur deposits, particularly if the fuel also contains CO_2 and has a low heating value. It has been found that heating the fuel to a temperature between 55°C and 60°C can prevent these deposits from occurring.

The sulfur compound content in the natural gas must be limited since the sulfur products have a tendency to condense as acids in the exhaust of the gas turbine and in progressively colder sections of heat recovery steam generators (HRSGs). In addition, in units with selective catalytic reduction (SCR) units for NO_x reduction, further limits may be required to reduce the potential for formation of ammonium sulfate compounds in the HRSG.

The gas turbine and auxiliaries can be operated without restriction provided that the hydrogen sulfide (H_2S) partial pressure is kept below 0.0003 MPa abs. This is in accordance with the material requirements set forth in NACE MR01750-2003. SPG should be consulted if the partial pressure is higher than allowed. The maximum expected partial pressure of H_2S may be calculated by multiplying the maximum system total pressure by the mole fraction of H_2S :

$$p_{\text{partial}}[\text{H}_2\text{S}] = p_{\text{total}} \times \text{H}_2\text{S}$$

where:

$$p_{\text{partial}}[\text{H}_2\text{S}] = \text{maximum expected partial pressure of } \text{H}_2\text{S}$$

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P_{total} = maximum system total pressure

H_2S = mole fraction of hydrogen sulfide (as decimal)

For protection of the gas turbine, the total content of all sulfur compounds in the natural gas shall not exceed 2,000 ppmw (parts per million by weight) unless otherwise restricted by more stringent contract requirements and/or non-SPG supplied equipment limitations such as for HRSGs, SCR's, or oxidation catalysts (CO or VOC).

See Appendix 2 for a summary of the acceptable levels of sulfur compounds. Both absolute limits and "guidance" are provided. Guidance is a rough estimate of the appropriate sulfur levels for environmental and HRSG corrosion issues to be resolved. Actual limits for sulfur in the fuel gas will be determined on a project specific basis taking into account thermal performance, corrosion and environmental issues.

4.7.5 Other Contaminants

In addition to the contaminants discussed in this document, SPG will review all other contaminants on a case-by-case basis per applicable ASTM or equivalent test methods.

4.7.6 Additives

All fuel additives require SPG approval prior to use. A complete chemical analysis of the additives are needed for a meaningful evaluation. Any contaminants contributed by additives must be included in evaluation of the total equivalent contaminant level.

4.7.7 Calculation of Contaminants

Evaluation of contaminants must account for all sources, including non-fuel sources such as compressor inlet air, steam/water injection for NO_x control or power augmentation, and water for evaporative coolers. Contaminant concentrations contributed by each non-fuel source must be corrected to a fuel-equivalent basis. The equation below shall be used to calculate total effective contaminant levels. A sample calculation is given in Appendix 2.

$$TCL[i] = R \times \{I_f + [I_{air} \times (1-K_A) \times (A/F)] + [I_{stm} \times (S/F)] + [I_w \times (W/F)] + [I_{add} \times (AD/F)]\}$$

where:

$TCL[i]$ = total equivalent contaminant level [ppmw], i is the individual species of concern

R = (LHV of Reference Fuel)* / (LHV of Actual Fuel)

I_f = contaminant level of fuel at the ECONOPAC boundary [ppmw]

I_{air} = contaminant level of air entering filters [ppmw]

K_A = total efficiency of air filter(s) (0 = no filtering; 1.00 = 100% filter efficiency) [†]

A/F = air to fuel weight ratio

I_{stm} = contaminant level of injection steam entering gas turbine [ppmw]

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S/F = steam to fuel weight ratio

I_w = contaminant level of injection water entering gas turbine [ppmw]

W/F = water to fuel weight ratio

I_{add} = contaminant level of additives entering gas turbine [ppmw]

AD/F = additive to fuel weight ratio

* LHV of the Reference Fuel is 43,031 kJ/kg (18,500 BTU/lb)

† If an evaporative cooler is present and air samples are taken downstream of the evaporative cooler equipment, then K_A should be set to zero.

Note: A/F, S/F, W/F, and AD/F are the actual values for the specific fuel being used.

The total contaminant level entering the gas turbine must be less than the limit given in Appendix 2, for each contaminant species. If fuel additives are used which affect the heating value of the fuel, this altered LHV (fuel + additive) should be used as the "LHV of Actual Fuel".

The contaminant limits stated in this document are based on a fixed impurity mass flow through the combustor as based on the LHV of the Reference Fuel stated above. Fuels with lower LHVs require higher fuel flow into the gas turbine for an equivalent heat input. This increased fuel flow means possible greater contribution of contaminants. The "R" term in the above equation corrects for increased or decreased fuel flow based on the fuel LHV. Therefore, it should be noted that fuels with lower LHVs may need to meet reduced limits in order for the total contaminant level to meet the required limit stated in Appendix 2.

4.8 REQUIRED EVALUATIONS FOR AIR, WATER/STEAM, FUEL, AND FUEL ADDITIVES

Prior to operation, it is required that a complete evaluation of the following be submitted to SPG for review and approval:

- air entering the gas turbine (after the evaporative cooler, if applicable)
- water entering the gas turbine for injection
- steam entering the gas turbine for injection
- fuel entering the gas turbine as supplied to the ECONOPAC boundary
- fuel additive(s)

See the attached appendices for the required analysis methods and results to be reported. Existing units with possible contamination issues must also have these analyses performed and the results submitted to SPG for review.

Since certain constituents are significant at the part per million level, extreme care must be taken in sampling to ensure that a representative sample is delivered to the laboratory. Measurements for each parameter shall be accurate within the following ranges:

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CONTAMINANT LIMIT LISTED**IN APPENDIX 2**

> 1% by volume
 < 1% by volume
 >3.0 ppmw
 <3.0 ppmw

REQUIRED ACCURACY**OF MEASUREMENT**

+/- 0.05%
 +/- 0.001%
 +/- 0.1 ppmw
 +/- 0.01 ppmw

All samples should be obtained using proper sampling methods, per approved standards. The sampling point shall be located such that it will provide a well mixed sample for an accurate representation. The specific sampling point location shall be documented on all samples and on all laboratory reports.

All fuel sample analyses are to be performed at qualified laboratories using ASTM and API methods as specified in Appendices 3 and 4, as appropriate. Other laboratory procedures are included in Appendices 4, 5 and 6 for air, additives and water. If analytical services are not readily available to the customer then SPG should be contacted to help determine how to best to acquire these services.

5. REFERENCES

NACE MR0175-2003: "Standard Material Requirements – Metals for Sulfide Stress Cracking and Stress Corrosion Cracking Resistance in Sour Oilfield Environments"

6. APPENDICES

Appendix 1: Fuel Properties and Composition Limits

Appendix 2: Total Contaminant Limits

Appendix 3: Required Fuel Analysis and Test Methods

Appendix 4: Fuel Contaminants for Synthetic/Low Heating and Waste Gases (per ASTM D3605)

Appendix 5: Water/Steam Fuel Additive Analysis Requirements

Appendix 6: Air Analysis

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APPENDIX 1: FUEL PROPERTY AND COMPOSITION LIMITS

PART A: FUEL PROPERTY AND COMPOSITION LIMITS FOR GAS TURBINE FRAMES: SGT-1000F, SGT6-2000E(6), SGT5-2000E(3),(6),(7), SGT5-3000E(2), SGT6-4000F(2),(4), SGT5-4000F(2),(4)			
For limits associated with other gas turbine frames, see Part B.			
COMBUSTION SYSTEM TYPE	PREMIX		DIFFUSION
Combustor Model	Annular	Silo	Silo
FUEL PROPERTIES			
LHV mass	40 to 50 MJ/kg	35 to 50 MJ/kg	20 to 50 MJ/kg
LHV vol	34 to 42 MJ/Nm ³	30 to 42 MJ/Nm ³	21 to 42 MJ/Nm ³
Wobbe Index (Wo)	41.5 to 51 MJ/Nm ³	37 to 51 MJ/Nm ³	25 to 50 MJ/Nm ³
Wo Variation	±5 of design value		±15% of design value
Wo Variation Rate	≤ 6%/minute		
Pressure	Project Specific		
Pressure Variation	±5% of design setpoint for fuel flow < 15% of max flow ±2.5% of design setpoint for fuel flow > 15% of max flow		
Pressure Variation Rate	≤ 20 kPa/s		
Temperature	Project Specific (See Section 4.4)	-10°C to 130°C	
Temperature During Startup	±10°C from design value		
Temperature Variation Rate	1°C/s		
Dew Point Approach	≥ 10°C for hydrocarbons, ≥ 15°C for H ₂ O		
FUEL COMPOSITION (BY VOLUME)			
Methane (CH ₄)	≥ 80%		
Ethane (C ₂ H ₆)	≤ 15%		
Propane (C ₃ H ₈)	N/A		
Hydrocarbons of C ₃ +	≤ 10% *		
Aromatics (C _n H _{2n-6} , C _n H _{2n-12})	Report †		
Diolefins (C _n H _{2n-2})	≤ 0.1%		≤ 1%
Olefins (C _n H _{2n})	≤ 4%		
Paraffins (C _n H _{2n+2})	Report †		
Oxygen (O ₂)	≤ 1.0 %		
Hydrogen (H ₂)	≤ 1%		≤ 10%
CO	Report †		
FBN	Project Specific (Per Emissions Requirements. See Section 4.6.4)		
(N ₂ + Ar + CO ₂)	≤ 18%		

N/A = Not Applicable

* The limits stated for Hydrocarbons of C₃ apply to the total of all hydrocarbons in this category, including Aromatics, Diolefins (such as Acetylene C₂H₂), Olefins, and Paraffins.

† The limit for this component is governed by the limit stated for Hydrocarbons of C₃+. However, the amount of this component should still be reported for review.

‡ SPG does not currently limit the quantity of this component for this application. However, the amount of this component should still be reported for review.

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APPENDIX 1: FUEL PROPERTY AND COMPOSITION LIMITS

PART B: FUEL PROPERTY AND COMPOSITION LIMITS FOR GAS TURBINE FRAMES: SGT6-3000E, SGT6-5000F(2),(3), SGT6-6000G(M), (1) For limits associated with other gas turbine frames, see Part A.					
COMBUSTION SYSTEM TYPE		PREMIX			DIFFUSION
GT Application	SGT6-3000E with DLN	SGT6-5000F with DLN	SGT6-5000F with DLN++	SFT6-6000G with DLN	SGT6-3000E SGT6-5000F with DF-42
FUEL PROPERTIES					
LHV mass	42 to 51 MJ/kg		46 to 50 MJ/kg		≥ 20 MJ/kg
LHV vol	32 to 41 MJ/Nm ³		34 to 39 MJ/Nm ³		≥ 9 MJ/Nm ³
Wobbe Index (Wo)	40.2 to 54.3 MJ/Nm ³				
Wo Variation	±2% during startup to stable operation				
	±2% w/o active tuning ±7% w/ active tuning	±2% w/o active tuning ±4% w/ active tuning			±15%
Wo Variation Rate	≤ 2%/minute				
Pressure	Project Specific				
Pressure Variation	±5% of design setpoint				
Pressure Variation Rate	≤ 20 kPa/s				
Temperature	Project Specific (See Section 4.4)				
Temperature During Startup	Project Specific (See Section 4.4)				
Temperature Variation Rate	N/A				
Dew Point Approach	≥ 28°C for hydrocarbons and H ₂ O				
FUEL COMPOSITION (BY VOLUME)					
Methane (CH ₄)	≥ 80%				Report †
Ethane (C ₂ H ₆)	≤ 20%	≤ 16%	≤ 8%	Report †	
Propane (C ₃ H ₈)	≤ 15%	≤ 2.5%	≤ 1.5%	Report †	
Hydrocarbons of C ₄ +	≤ 5% *	≤ 1% *		Report †	
Aromatics (C _n H _{2n-6} , C _n H _{2n-12})	Report †				
Diolefins (C _n H _{2n-2})	Report †				
Olefins (C _n H _{2n})	≤ 4%	≤ 1%		≤ 4%	
Paraffins (C _n H _{2n+2})	Report †				
Oxygen (O ₂)	≤ 1.0 %				
Hydrogen (H ₂)	≤ 8.5%				≤ 40%
CO	Report †				
FBN	Project Specific (Per Emissions Requirements. See Section 4.6.4)				
(N ₂ + Ar + CO ₂)	≤ 18%			≤ 5%	≤ 18%

DLN, DLN++ = Subcategories of premix combustion systems. Applicable only for the GT frames listed. "DLN" stands for "Dry Low NO_x".

DF-42 = Subcategory of diffusion flame combustion systems. Applicable only for the GT frames listed.

N/A = Not Applicable

* The limits stated for Hydrocarbons of C₄ apply to the total of all hydrocarbons in this category, including Aromatics, Diolefins, Olefins, and Paraffins.

† The limit for this component is governed by the limit stated for Hydrocarbons of C₄+. However, the amount of this component should still be reported for review.

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Title: FUEL GAS SPECIFICATION

ZDX555-DC01-MBP-2500-01

Project: E9 GENERIC DOCUMENTS

Issued: 2008-09-01

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‡ SPG does not currently limit the quantity of this component for this application. However, the amount of this component should still be reported for review.

APPENDIX 2: TOTAL CONTAMINANT LIMITS

CONTAMINANT	MAXIMUM LIMIT	
Particulates / Dust (PM)		
Maximum Particle Size (d)	10 μm	
Maximum Allowable Content (by weight)		
d < 5 μm	18.5 ppmw	
5 ≤ d ≤ 10 μm	1.5 ppmw	
Maximum Allowable Content (by heat input)		
d < 5 μm	1.7x10 ⁻¹⁵ kg/mJ (LHV)	
5 ≤ d ≤ 10 μm	6.4x10 ⁻¹⁷ kg/mJ (LHV)	
Liquid Carryover		
Maximum Allowable at Econopac Boundary	0.05 ppmw	
Trace Elements		
Sodium and Potassium (Na + K)	0.3 ppmw (uncoated turbine blades and vanes) 1.0 ppmw (coated turbine blades and vanes)	
Calcium (Ca)	10 ppmw	
Vanadium (V)	0.5 ppmw	
Lead (Pb)	1.0 ppmw	
Chlorine (Cl)	6.0 ppmw	
Magnesium (Mg)	2.0 ppmw	
Barium (Ba)	0.1 ppmw (with SCR)	
Phosphorous (P)	0.1 ppmw (with SCR)	
Compounds		
	Limits	Guidance (ppmv)
Hydrogen Sulfide (H ₂ S)	0.0003 MPa (absolute)	
Total of Sulfur Compounds (including H ₂ S)	2000 ppmw	30-40 (SC emissions) 5-8 (CC with SCR + oxidation catalyst) 9-12 (CC with SCR)
All other contaminants must be reported and reviewed.		

NOTES:

- These limits apply to the total contaminant level as calculated on a fuel equivalent basis.
- If any of these limits are exceeded, SPG must be contacted for review and approval.

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APPENDIX 2: TOTAL CONTAMINANT LIMITS (CONTINUED)

Sample Calculation for Checking Total Contaminant Levels:

Consider a gas turbine with no evaporative cooler is operating under the following conditions: fuel gas LHV = 46520 kJ/kg, air-to-fuel ratio = 45:1, air filter efficiency = 90%, water-to-fuel injection ratio = 0.8/1, and the following results are obtained from analysis:

FUEL (at ECONOPAC boundary)	AIR (prior to filters)	WATER (supplied to combustor)
[Ca]: 0.01 ppmw	[Ca]: 0 ppmw	[Ca]: 1 ppmw
[PM]: 0 ppmw	[PM]: 0.02 ppmw	[PM]: 0 ppmw
[Na]: 0.01 ppmw	[Na]: 0.01 ppmw	[Na]: 0.01 ppmw
[K]: 0 ppmw	[K]: 0.02 ppmw	[K]: 0.03 ppmw

$$TCL = R \times \{ I_f + [I_{air} \times (1 - K_A) \times (A/F)] + [I_{stm} \times (S/F)] + [I_w \times (W/F)] + [I_{add} \times (AD/F)] \}$$

$$TCL[Ca] = (43031 / 46520) \{ 0.01 + (1)(0.8) \} = 0.75 \text{ ppmw}$$

$$TCL[PM] = (43031 / 46520) \{ (0.02)(1 - 0.90)(45) \} = 0.08 \text{ ppmw}$$

$$TCL[Na+K] = (43031 / 46520) \{ 0.01 + (0.02 + 0.01)(1 - 0.90)(45) + (0.01 + 0.03)(0.8) \} = 0.17 \text{ ppmw}$$

Comparing to the table above, all contaminants meet the specified limits.

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APPENDIX 3: REQUIRED FUEL ANALYSIS AND TEST METHODS

The tables below specify the required standards for analysis.

Corresponding ASTM, ISO or DIN standards may be substituted.

Properties/Contaminants	ASTM/ISO Method	Value	Units
Dew Point (water) *	D 1142/ISO 6327		°C
Moisture Content *	D 1142/ISO 10101		ppmv
Dew Point (Hydrocarbon)	Calculated/ISO 6976		°C
Specific Gravity @ 15.6°C, 101.325 kPa	D 3588/ISO 6976		-
Density	Calculated		kg/m ³
Higher Heating Value (HHV)	D 3588/ISO 6976		kJ/m ³
Lower Heating Value (LHV)	D 3588/ISO 6976		kJ/m ³
Higher Heating Value (HHV)	D 3588/ISO 6976		kJ/kg
Lower Heating Value (LHV)	D 3588/ISO 6976		kJ/kg
Molecular Weight	Calculated		
Total of Sulfur Compounds †	D 3246/ISO 6326		

* Not required for performance test samples

† Including Hydrogen Sulfide (H₂S).

Chemical Composition (per ASTM D 1945, ISO 6974, 6975)			
Component	% mol	Component	% mol
Argon (Ar)		Methane (CH ₄)	
Helium (He)		Ethane (C ₂ H ₆)	
Nitrogen (N ₂)		Propane (C ₃ H ₈)	
Oxygen (O ₂)		i-Butane (C ₄ H ₁₀)	
Carbon Monoxide (CO)		Butane (C ₄ H ₁₀)	
Carbon Dioxide (CO ₂)		i-Pentane (C ₅ H ₁₂)	
Water Vapor (H ₂ O)		Pentane (C ₅ H ₁₂)	
Hydrogen (H ₂)		Hexane (C ₆ H ₁₄)	
Acetylene (C ₂ H ₂) ‡		Heptane (C ₇ H ₁₆) ‡	
Ethylene (C ₂ H ₄) ‡		Octane (C ₈ H ₁₈) ‡	
Propylene (C ₃ H ₆) ‡		Nonane (C ₉ H ₂₀) ‡	
Butylene (C ₄ H ₈) ‡		Decane (C ₁₀ H ₂₂) ‡	
		Undecane (C ₁₁ H ₂₄) ‡	
		Dodecane (C ₁₂ H ₂₆) ‡	
		Tridecane (C ₁₃ H ₂₈) ‡	
		Tetradecane (C ₁₄ H ₃₀) ‡	

‡ Required only if presence is suspected

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APPENDIX 3: REQUIRED FUEL ANALYSIS AND TEST METHODS (CONTINUED)

Additional Tests (May be required for certain fuels.)			
Properties / Contaminants	ASTM/ISO/DIN Method	Value	Units**
Critical Pressure	Calculated		
Critical Temperature	Calculated		
Condensed Liquids	E 700/ISO 10101		
Hydrogen Sulfide (H ₂ S)	D 5504/ISO 19739		ppmv
Carbonyl Sulfide (COS)	D 5504/ISO 19739		ppmv
Hydrogen Cyanide (HCN)	D 5504/ISO 19739		ppmv
Ammonia (NH ₃)	D 5504/ISO 19739		ppmv
Alkali	D 3605/DIN 51790		% wt.
Other contaminants at concentration ≥ 0.001% vol.	D 5504/ISO 19739		ppmv

** ppmv = part per million by volume. % wt. = percent by weight.

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APPENDIX 4. WATER/STEAM FUEL ADDITIVE ANALYSIS REQUIREMENTS

The following results shall be obtained and the method(s) used to determine each item shall be provided.

PROPERTY	RESULT	
Oxygen content		ppmw (determined by O2 saturated water)
pH level		(see text)
Condensables		% weight
Cation Conductivity		
Total Dissolved Solids		
Ammonia		

CONTAMINANT (ASTM D3605)							
COMPONENT	SYMBOL	RESULT	UNITS	COMPONENT	SYMBOL	RESULT	UNITS
Sodium	Na		ppmw	Copper	Cu		ppmw
Potassium	K		ppmw	Zinc	Zn		ppmw
Vanadium	V		ppmw	Nickel	Ni		ppmw
Lead	Pb		ppmw	Chlorides			ppmw
Magnesium	Mg		ppmw				
Manganese	Mn		ppmw				
Silica	SiO ₂		ppmw				
Silicon	Si		ppmw				
Barium	Ba		ppmw				
Phosphorous	P		ppmw				
Calcium	Ca		ppmw				
Iron	Fe		ppmw				

SAMPLE OBTAINED BY: _____ DATE SAMPLE WAS TAKEN: _____

LOCATION WHERE SAMPLE WAS TAKEN: _____

LAB NAME: _____ DATE OF TEST: _____

Use these results to calculate total contaminants as described in Appendix 2.

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APPENDIX 5. AIR ANALYSIS

The following results shall be obtained and the method(s) used to determine each item shall be provided.

CONTAMINANT COMPONENT	SYMBOL	RESULT	UNITS
Sodium	Na		ppmw
Potassium	K		ppmw
Vanadium	V		ppmw
Lead	Pb		ppmw
Magnesium	Mg		ppmw
Manganese	Mn		ppmw
Silica	SiO ₂		ppmw
Silicon	Si		ppmw
Barium	Ba		ppmw
Phosphorous	P		ppmw
Calcium	Ca		ppmw
Iron	Fe		ppmw
Copper	Cu		ppmw
Zinc	Zn		ppmw
Nickel	Ni		ppmw
Chlorides	Cl		ppmw
Other Trace Metals			ppmw
			ppmw
			ppmw

SAMPLE OBTAINED BY: _____ DATE SAMPLE WAS
TAKEN: _____

LOCATION WHERE SAMPLE WAS
TAKEN: _____

LAB NAME: _____ DATE OF TEST: _____

Use these results to calculate total contaminants as described in Appendix 2.

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DEMINERALIZED WATER QUALITY REQUIREMENTS FOR GAS TURBINE APPLICATIONS

Written by:

Fred Shoemaker
Fred Shoemaker, Engineer
Operating Plant Technical Support

28-09-2005

Date

Approved by:

Patrick Solomon
Patrick Solomon, Manager
Operating Plant Technical Support

28-09-2005

Date

This document was formerly referred to as 22T1523.

Reference: _____

WBS: _____

Review Level: 1

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DOCUMENT NO. ZDX555-DC01-GC-4421-01		DISTRIBUTION CODE: 270-000-605	
TITLE: DEMINERALIZED WATER QUALITY REQUIREMENTS FOR GAS TURBINE APPLICATIONS		TYPE ESP	REV 002
Siemens Power Generation, Inc. - Orlando, FL A Siemens Company		Issue Date: 09/28/05	Page: 1 of 7

REVISION SHEET

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1.0 PURPOSE

The purpose of this document is to define the water quality requirements for the use of demineralized water in Siemens Power Generation, Inc. gas turbines. Demineralized water is required for certain applications such as wet compression, inlet fogging, on-line water washing, etc. In order to minimize the fouling, erosion, or corrosion of the gas turbine, the following demineralized water requirements have been developed.

These requirements represent the recommended allowable concentrations and it is the customer's responsibility to ensure these recommendations are followed.

2.0 WATER QUALITY REQUIREMENTS

The allowable concentrations in the demineralized water supplied to the gas turbine are as follows.

Substance	Maximum Concentration Allowed in water to compressor (ppmw)	Reason for Requirement
Sodium & Potassium	0.02	Corrosion
Calcium	0.4	Deposits
Chlorides	0.25	Corrosion
Iron & Copper	0.01	Deposits
Silica	0.1	Deposits
Total dissolved solids*	1.0	Deposits/Fouling/Erosion
Minimum pH*	6.0 (SS Piping) 7.5 (Carbon Steel Piping)	Corrosion
Maximum pH*	8.0	Corrosion
Conductivity*	0.5 μ Siemens/cm	Additional Detection

*Continuous analysis recommended

In order to limit suspended particulates, all water must pass through a 5 micron filter prior to entering the engine.

Note: The total contaminants present in the fuel, air, and injection fluids must meet the requirements of the latest Siemens Power Generation, Inc. liquid and gas fuel specifications (21T4424 & 21T0306).

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To determine the extent of contamination on a fuel equivalent basis due to the added water, the water contaminant level in ppmw (ppm by weight) is multiplied by the water-to-fuel ratio. For example:

$$\text{ppm (fuel flow equivalent)} = \frac{\text{ppm (water)} \times \text{lb/hr (water)}}{\text{lb/hr (fuel)}}$$

$$\text{where: lb/hr (water)} = \text{GPM} \times 500$$

Simply adhering to the total contaminant levels defined in the fuel specifications would in most cases, with clean fuel and air, allow for substantially more contaminants in the water. However, exceeding the above values or operating outside the range of pH levels will increase the rate of fouling, corrosion, or erosion and will lead to a loss of performance and component life.

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WATER QUALITY RECOMMENDATIONS FOR EVAPORATIVE COOLERS

Written by:	<i>Christopher Ritter</i> Christopher Ritter, Engineer G 1232 - Inlet, Exhaust, V84	Feb 3, 2005 Date
Reviewed by:	<i>Volker Wild</i> Volker Wild, Tech Lead Engineer G1232 - Inlet, Exhaust, V84	Feb 3, 2005 Date
Approved by:	<i>P. Ritland</i> Paul Ritland, Manager G1232 - Inlet, Exhaust, V84	Feb 3, 2005 Date

Reference: _____
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 Review Level: 4

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DOCUMENT NO. 22T3387			
TITLE: WATER QUALITY RECOMMENDATIONS FOR EVAPORATIVE COOLERS		TYPE ESP	REV 002
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REVISION SHEET

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DOCUMENT NO. 22T3387

TITLE: WATER QUALITY RECOMMENDATIONS FOR EVAPORATIVE COOLERS

**TYPE
ESP**

REV
002

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1.0 PURPOSE

The purpose of this document is to define the water quality recommendations for the use of evaporative coolers. In order to minimize the scaling and corrosion, the number of cycles of concentration in the evaporative cooler, as well as makeup water quality are addressed.

These requirements represent the recommended allowable concentrations and it is the operator's responsibility to ensure these recommendations are followed.

2.0 MAKEUP WATER QUALITY RECOMMENDATIONS

The allowable concentrations in the makeup water supplied to the evaporative cooler are as follows.

Table I. Evaporative Cooler Makeup Water Quality Recommendations

Constituent	Concentration Range (ppm)
Calcium Hardness (as CaCO ₃)	50 - 150
Total Alkalinity (as CaCO ₃)	50 - 150
Chlorides (as Cl)	< 50
Silica (as SiO ₂)	< 25
Iron (as Fe)	< 0.2
Oil and Grease	< 2.0
Total Dissolved Solids	30 - 500
Suspended Solids	< 5
pH	6.0 - 8.5
Conductivity	50 - 750 μ mhos

Makeup water maintained within these recommendations is expected to allow operation at 1.5 to 3 cycles of concentration in the evaporative cooler with an acceptable scaling index level. The scaling index for site specific water analysis at site operating conditions must be verified by the operator based on the limits presented below.

3.0 SCALING INDEX

The determination of the maximum number of cycles of concentration (as defined as the ratio of the makeup water flow to the blowdown flow) for any water source should be verified utilizing a scaling index. The determination of the number cycles of concentration also determines the blowdown requirement during operation of the system. There are many scaling indices for determining the scaling characteristics of a given water. For evaporative cooling, it is desirable to maintain a slightly corrosive or scale dissolving index. However, water that is very corrosive such as demineralized water can soften the media in the cooler.

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The water at the operating conditions in the evaporative cooler should be maintained such that the scaling index lies within the ranges presented in Table II. Although a several indices are listed, the Practical (Puckorius) Stability Index (PSI) is the preferred index of the media vendors.

Table II. Recommended Scaling Indices for Evaporative Cooling

Index	Recommended Range
Langlier Saturation Index (LSI)	0.25 - 0.75
Ryznar Stability Index (RSI)	5.5 - 6.5
Practical (Puckorius) Stability Index (PSI)	6.0 - 7.0

4.0 ADDITIONAL RECOMENDATIONS

4.1 Blending

The blending of demineralized, treated or purified water with potable water or raw water is an acceptable means of obtaining the water quality to meet the recommendations. Consideration as to the reliability of the sources is important since use of only demineralized water or raw water could cause scaling or degradation of the cooler media. Generally, interruption of either supply for even a short period of time can cause damage to the media.

4.2 Chemical Additives

Use of chemicals is not recommended to treat the water. Any use of chemicals shall be approved by the media vendor.

4.2.1 Scale Control Additives

4.2.1.1 Cooling tower chemical treatment programs for controlling scale should not be used in evaporative coolers. Cooling tower chemicals are designed to protect the metal heat transfer surfaces from scale deposits. The cooling tower media stays clean due to the high volume of water that flows over the surface. In evaporative coolers, the media is the heat transfer surface and the evaporative surface. Low flow allows salts to concentrate and deposit on the media surface.

4.2.1.2 Chemical treatment utilizing scale inhibitors is not recommended in evaporative coolers. The antiscalants are not effective in the inhibition of scale. The scale inhibitors also concentrate and become a part of the scale deposit.

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4.2.2 Additives to Increase Hardness and Alkalinity

Utilizing chemicals to increase hardness and alkalinity in demineralized water is not recommended. The appropriate chemical balance is delicate and is easy to overdose chemicals. Evaporative cooler operators have typically experienced reduced media life when chemically treated demineralized water is the water source. Therefore, media suppliers are reluctant to approve the use of chemically treated demineralized water.

4.2.3 Biocides

Biocides are not recommended for use in evaporative coolers. Biological growth should be controlled by good housekeeping. Keeping the media dry while the system is down is critical to good housekeeping. The evaporative cooler operator is advised to consult with the evaporative cooler supplier for additional information regarding biocides.

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DOCUMENT NO. 22T3387		TYPE	REV
TITLE: WATER QUALITY RECOMMENDATIONS FOR EVAPORATIVE COOLERS		ESP	002
Siemens Westinghouse Power Corporation - Orlando, FL		Issue Date: Feb 4, 2005 Page: 6 of 6	

Exhibit J
Maintenance Labor Agreement (MLA)

To Be Attached.

MAINTENANCE LABOR AGREEMENT
FOR
THE LODI ENERGY CENTER PROJECT

LODI, CALIFORNIA

1. INITIAL PROVISIONS

1.1. This Maintenance Labor Agreement ("Agreement") is entered into by the Northern California Power Agency ("Primary Employer"), the State Building and Construction Trades Council of California ("State Council") and the Building and Construction Trades Council of San Joaquin, Calaveras, and Alpine Counties ("Local Council") and the local unions who have executed this Agreement, all of whom are referred to collectively as the "Unions."

1.2. The Lodi Energy Center Project (the "Project") is an approximately 255 MW power plant located in the City of Lodi, San Joaquin County, California. The Project is owned by the Northern California Power Agency ("Owner"). It is understood and agreed by and between the Parties to this Agreement that the final plans for the Project may be subject to modifications and approval by those public agencies possessing lawful approval authority over the Project and that this Agreement applies to the Project as it is finally approved by such entities and agencies.

1.3. The Primary Employer is a California Joint Power Agency. It is an employer in the construction industry. Its employees currently perform construction work and will perform construction work on the Project. It has a collective bargaining relationship with the International Brotherhood of Electrical Workers and Operating Engineers.

1.4. As provided below, all project managers, construction managers, contractors, subcontractors or other persons or entities assigning, awarding or subcontracting Covered Work (as defined in Article 2), or authorizing another party to assign, award or subcontract Covered Work or performing Covered Work will be subject to this Agreement by executing Attachment A, the Employer Agreement to be Bound (all of whom, including the Primary Employer, are individually and collectively referred to as "Employer" or "Employers").

1.5. The Unions are labor organizations whose members are construction industry employees who generally work in close proximity to one another at

construction job sites and whose jobs are closely related and coordinated. Each of the Unions is a party to a multi-employer collective bargaining agreement ("Master Agreement") that covers the geographic area of the Project. Where the term Master Agreement is used, it means the existing Master Agreement currently in effect as to each of the Unions.

1.6. The Project will be a large, complex construction project that will require periodic maintenance by skilled craft workers. A large pool of skilled labor represented by the Unions will be required to execute the work involved in maintaining the Project. Employers wish and it is the purpose of this Agreement to ensure that a sufficient supply of skilled craft workers are available at the Project, that all maintenance work and related work performed by the members of the Unions on this Project shall proceed continuously, without interruption, in a safe and efficient manner, economically with due consideration for the protection of labor standards, wages and working conditions. In furtherance of these purposes and to secure optimum productivity, harmonious relations between the parties and the orderly performance of the work, the parties to this Agreement agree to establish adequate and fair wage levels and working conditions.

1.7. It is a central purpose of the parties in executing this Agreement to protect the Project against the jobsite friction that could arise at a common-situs jobsite if union employees had to work alongside non-union employees in their own craft or in those other crafts with which they generally work in close proximity performing work that is closely related and coordinated. This Agreement accomplishes this purpose by ensuring that all Covered Work will be performed by workers who are union members. In the event that any construction work falls outside the scope of this Agreement, the Primary Employer further protects itself from the natural result of jobsite friction by prohibiting all strikes, picketing or similar activity for any reason whatsoever, and by imposing severe penalties on any Union that violates this prohibition.

1.8. In the interest of the future of the construction industry in the local area, of which the Unions are a vital part, and to maintain the most efficient and competitive posture possible, the Unions pledge to work and cooperate with the management of the Project to produce the most efficient utilization of labor and equipment in accordance with this Agreement.

2. SCOPE OF AGREEMENT

2.1. This Agreement applies to the Project and includes all planned outage maintenance, major overhauls, and other maintenance work performed on the Project that is contracted out to a contractor in the construction industry. All work within the scope of this Agreement is referred to as "Covered Work."

2.2. The following work is excluded from the scope of this Agreement:

2.2.1. Work which is performed by an Original Equipment Manufacturer's ("OEM") labor forces for warranty, repair or maintenance on the vendor's equipment if required by the OEM's warranty agreement between the OEM and the Owner.

2.2.2. Construction or repair work performed by the Primary Employer's general or EPC contractor under a Project Labor Agreement approved by the Councils and the Owner.

2.2.3. Work performed by technical representatives or technicians performing specialized work on equipment where such employees have special or unique skills or experience on that equipment which employees represented by the Unions do not possess.

2.2.4. Work performed by non-construction craft employees.

2.2.5. Work performed by Primary Employer's regular workforce.

2.2.6. Work performed by Pacific Gas & Electric or another utility or local water purveyor.

2.2.7. Work performed on the existing 49.9 MW steam injected gas turbine adjacent to the Project site.

2.2.8. Worked that is performed in the existing 230 KV Switchyard.

2.2.9. Work performed on the existing waste water treatment plant adjacent to the Project site.

2.2.10. Work that is immediately necessary to repair a unit or piece of equipment as the result of an emergency, act of God or other sudden unexpected events outside of the control of the Primary Employer.

2.2.11. Work if, at the time the work is to be performed, union signatory contractors are not reasonably available to bid the work.

3. SUBCONTRACTING

3.1. Primary Employer and each other Employer agree that they will contract for the assignment, awarding or subcontracting of Covered Work, or authorize another party to assign, award or subcontract Covered Work, only to a person, firm, corporation or other entity that, at the time the contract is executed, has become a party to this Agreement by executing Attachment A, the Employer Agreement to be Bound.

3.2. Primary Employer and each other Employer agree that they will subcontract Covered Work only to a person, firm, corporation or other entity who is or becomes party to this Agreement and who is or becomes bound for purposes of performing Covered Work to either a local, area or regional Master Agreement with the craft Union having traditional and customary building trades craft jurisdiction over the work or, only in the case of a national contractor, a national agreement with the International Union(s) of the craft Union(s) having traditional and customary jurisdiction over the work. Any Employer (including Primary Employer) performing Covered Work on the Project shall, as a condition to working on the Project, perform all work under the terms of this Agreement and the applicable Master Agreement. Before being authorized to perform any Covered Work, Employers (other than Primary Employer) shall become a party to this Agreement by signing Attachment A, the Employer Agreement to be Bound. Every Employer

shall notify the Local Council and the State Council in writing within five business days after it has subcontracted work, and shall at the same time provide to the Local Council and the State Council a copy of the executed Employer Agreement to be Bound.

3.3. Notwithstanding Section 3.2, any Employer not already bound to a Master Agreement, who signs and becomes bound to a Master Agreement to participate on this Project, shall not be required to apply the terms of that Master Agreement to any other construction project.

3.4. Nothing in this Agreement shall in any manner whatsoever limit the rights of the Primary Employer, or any other Employer, to subcontract Covered Work or to select its contractors or subcontractors; provided, however, that all Employers, at all tiers, assigning, awarding, contracting or performing, or authorizing another to assign, award, contract or perform Covered Work shall be required to comply with the provisions of this Agreement. Primary Employer and every other Employer shall notify each of its contractors and subcontractors of the provisions of this Agreement and require as a condition precedent to the assigning, awarding or subcontracting of any Covered Work or allowing any subcontracted Covered Work to be performed, that all such contractors and subcontractors at all tiers become signatory to this Agreement. Any Employer that fails to provide the Local Council and State Council with the Employer Agreement to be Bound executed by its contractor or subcontractor shall be liable for any failure of that contractor or subcontractor, or any contractor or subcontractor at a lower tier, to comply with the provisions of this Agreement, including any contributions to any trust funds that the contractor or subcontractor, or any subcontractor to that subcontractor, fails to make.

4. WAGES AND BENEFITS

4.1. All employees covered by this Agreement (including foremen and general foremen if they are covered by the Master Agreement) shall be classified

and paid wages, other compensation including but not limited to travel, subsistence, and shift premium pay, and contributions made on their behalf to multi-employer trust funds, all in accordance with the then current multi-employer Master Agreement of the applicable Union.

4.2. Any special interest bargaining which establishes wage rates, classifications, zones, or wage escalations which apply exclusively to the Project will not be recognized. In addition, there shall be no redlining of the Project in any future multi-employer collective bargaining agreements by singling out, either by name or by effect, the Project or the Employers for less favorable wages, benefits or working conditions than are generally accorded other industrial projects in the same general geographic area.

5. UNION RECOGNITION

5.1. The Employers recognize the Unions signatory to this Agreement as the sole and exclusive collective bargaining agents for their respective construction craft employees performing Covered Work for the Project, and further recognize the traditional and customary craft jurisdiction of each Union.

5.2. All employees performing Covered Work shall be or shall become and then remain members in good standing of the appropriate Union as a condition of employment on or before the eighth (8th) day of employment, or the eighth (8th) day following the execution of this Agreement, whichever is later.

5.3. The Unions shall be the source of all craft employees for Covered Work for the Project. Employers agree to be bound by the hiring and layoff practices of the respective Union, including hiring of apprentices, and to utilize its registration facilities and referral systems.

5.4. In the event the referral facilities maintained by the Unions do not refer the employees as requested by the Employer within a forty-eight (48) hour period after such requisition is made by the Employer (Saturdays, Sundays and holidays excepted), the Employer may employ applicants from any source.

5.5. Each Union shall have the right to designate one working journeyperson per shift as a steward. The steward shall be a qualified employee performing the work of that craft and shall not exercise any supervisory functions. Each steward shall be concerned with the employees of the steward's Employer and not with the employees of any other Employer. A steward at the appropriate time of day shall be allowed sufficient time to perform his duties. This provision shall not be abused.

6. WORK STOPPAGES AND LOCKOUTS

6.1. During the term of this Agreement, there shall be no strikes, sympathy strikes, picketing, work stoppages, slow downs, interference with the work or other disruptive activity for any reason by the Union or by any employee, and there shall be no lockout by any Employer. Failure of any Union or employee to cross any picket line established at the Employer's project site is a violation of this Article.

6.2. The Union shall not sanction, aid or abet, encourage or continue any work stoppage, strike, picketing or other disruptive activity at the Project site and shall undertake all reasonable means to prevent or to terminate any such activity. No employee shall engage in activities which violate this Article. Any employee who participates in or encourages any activities which interfere with the normal operation of the Project shall be subject to disciplinary action, including discharge, and, if justifiably discharged for the above reasons, shall not be eligible for rehire on the same project for a period of not less than ninety (90) days.

6.3. The Union shall not be liable for acts of employees for which it has no responsibility. The principal officer or officers of a Union will immediately instruct, order and use the best efforts of his office to cause the employees the Union represents to cease any violations of the Article. A Union complying with this obligation shall not be liable for unauthorized acts of employees it represents. The failure of the Employer to exercise its right in any instance shall not be deemed a waiver of its right in any other instance.

6.4. The Union(s) agrees that if any union or any other persons, whether parties to this Agreement or otherwise, engage in any picketing or work stoppages, the signatory Unions shall consider such work stoppage or picketing to be illegal and refuse to honor such picket line or work stoppage.

6.5. In the event of any work stoppage, strike, sympathy strike, picketing interference with the work or other disruptive activity in violation of this Article, the Employer may suspend all or any portion of the Project work affected by such activity at the Employer's discretion and without penalty.

6.5.1. Any Union which initiates or participates in a work stoppage in violation of this Article, or which recognizes or supports the work stoppage of another Union which is in violation of this Article agrees, as a remedy for said violation, to pay liquidated damages in accordance with Section 6.6.8 of this Article.

6.6. In lieu of, or in addition to, any other action at law or equity, any party may institute the following procedure when a breach of this Article is alleged, after the Union(s) and/or local union(s) has been notified of the fact.

6.6.1. The party invoking this procedure shall notify Norman Brand or Joe Grodin who the parties to this agreement agree shall be the permanent Arbitrators under this procedure. In the event that either of the permanent Arbitrators is unavailable at any time, the American Arbitration Association shall select an alternative arbitrator within twenty-four (24) hours of notice. Notice to the Arbitrator shall be by the most expeditious means available, with notice by fax or electronic means or any other effective written means to the party alleged to be in violation and the involved International Union President and or local union.

6.6.2. Upon receipt of said notice, the Arbitrators named above shall set and hold a hearing within twenty-four (24) hours if it is contended that the violation still exists.

6.6.3. The Arbitrator shall notify the parties by fax or electronic means or any other effective written means of the place and time he has chosen for this hearing. Said hearing shall be completed in one session. A failure of any party or

parties to attend said hearing shall not delay the hearing of evidence or issuance of an Award by the Arbitrator.

6.6.4. The sole issue at the hearing shall be whether or not a violation of this Article has in fact occurred. The Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without an opinion. If any party desires an opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The Arbitrator may order cessation of the violation of this Article by the Union, and such Award shall be served on all parties by hand or registered mail upon issuance.

6.6.5. Such Award may be enforced by any court of competent jurisdiction upon the filing of this Agreement and all other relevant documents referred to hereinabove in the following manner. The fax or electronic notice of the filing of such enforcement proceedings shall be given to the other party. In the proceeding to obtain a temporary order enforcing the Arbitrator's Award as issued under Section 6.6.4 of this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Arbitrator's Award shall be served on all parties by hand or by delivery to their last known address or by registered mail.

6.6.6. Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance therewith are hereby waived by the parties to whom they accrue.

6.6.7. The fees and expenses of the Arbitrator shall be borne by the party or parties found in violation, or in the event no violation is found, such fees and expenses shall be borne by the moving party.

6.6.8. If the Arbitrator determines that a violation has occurred in accordance with Section 6.6.4 above, the party or parties found to be in violation shall pay as liquidated damages the following amounts: for the first shift in which the violation occurred, \$20,000; for the second shift, \$25,000; for the third shift,

\$30,000; for each shift thereafter on which the craft has not returned to work, \$30,000 per shift. The Arbitrator shall retain jurisdiction to determine compliance with this section and this Article.

6.7. The procedures contained in Section 6.6 shall be applicable to alleged violations of this Article. Disputes alleging violation of any other provision of this Agreement, including any underlying disputes alleged to be in justification, explanation or mitigation of any violation of this Article, shall be resolved under the grievance procedures of Article 8.

6.8. Notwithstanding the provisions of Section 6.1 above, it is agreed that with twenty-four (24) hour prior notice to the Primary Employer, a Union retains the right to withhold the services of its members from a particular contractor or subcontractor who fails to make timely payments to the Union's benefit plans or fails to timely pay its weekly payroll in accordance with its agreements with the Union; provided, however, that in the event the Union or any of its members withhold their services from such contractor or subcontractor, Primary Employer shall have the right to replace such contractor or subcontractor with any other contractor or subcontractor who executes the Agreement to be Bound.

6.9. It will not be a violation of this Agreement when the Employer considers it necessary to shut down to avoid the possible loss of human life because of an emergency situation that could endanger the life and safety of an employee. In such cases, employees will be compensated only for the actual time worked. In the case of a situation described above whereby the Employer requests employees to wait in a designated area available for work, the employees will be compensated for the waiting time.

6.10. In the event that any applicable labor agreement expires and the parties to that agreement fail to reach agreement on a new contract by the date of expiration, a Union shall continue to provide employees to the Employers working on the Project under all the terms of the expired agreement until a new agreement is negotiated, at which time all terms and conditions of that new agreement shall be

applied to Covered Work at the Project, except to the extent they conflict with any provision of this Agreement. In addition, if the new labor agreement provides for wage or benefit increases, then any Employer shall pay to its employees who performed Covered Work at the Project during the hiatus between the effective dates of such labor agreements, an amount equal to any such wage and benefit increases established by the new labor agreement for such work performed.

7. HOURS OF WORK AND HOLIDAYS

7.1. The standard work day shall consist of eight (8) hours of work between 6:00 a.m. and 5:30 p.m. with one-half hour designated as an unpaid period for lunch. Common start times may be established by the Employer during this window period. Proposed modifications to the standard work day may be submitted by an Employer to the Local Council for approval. This approval shall not be unreasonably withheld. The standard work week shall be five (5) consecutive days of work commencing on Monday. Proposed modifications to the standard work week may be submitted by an Employer to the Local Council for approval. The Local Council shall respond within five (5) working days and bargain in good faith over any such proposed modification. Nothing herein shall be construed as guaranteeing any employee eight (8) hours of work per day or forty (40) hours of work per week.

7.2. Common shifts may be established when considered necessary by the Employer. The Employer shall provide at least one week notice to the Local Council prior to any change in shift time. Any shifts established shall continue for the established work week.

7.3. Recognized holidays shall be as follows: New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Memorial Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, Christmas Day. No other holidays or black-out dates will be recognized. In the event a holiday falls on Saturday, the previous day, Friday, shall be observed as such holiday. In the event a holiday falls on Sunday, the following day, Monday, shall be observed as such

holiday. There shall be no paid holidays. If employees are required to work on a holiday, they shall receive the appropriate rate; but in no case shall such overtime rate be more than double the straight time rate.

8. GRIEVANCE PROCEDURE

8.1. It is mutually agreed that any question arising out of and during the term of this Agreement involving its interpretation and application (other than jurisdictional disputes or successorship) shall be considered a grievance. Questions between or among parties signatory to a Master Agreement arising out of or involving the interpretation of a Master Agreement shall be resolved under the grievance procedure provided in that Master Agreement.

8.2. The Primary Employer and other Employers, as well as the Unions, may bring forth grievances under this Article.

8.3. A grievance shall be considered null and void if not brought to the attention of the Employer(s) within five (5) working days after the incident that initiated the alleged grievance occurred or was discovered, whichever is later. The term "working days" as used in this Article shall exclude Saturdays, Sundays or holidays regardless of whether any work is actually performed on such days.

8.4. Grievances shall be settled according to the following procedure, except that grievances that do not involve an individual grievant shall be discussed by the Primary Employer, State Council and Local Council and then, if not resolved within five (5) working days of written notice unless extended by mutual consent, commence at Step 4:

Step 1

The Steward and the grievant shall attempt to resolve the grievance with the craft supervisor within five (5) working days after the Grievance has been brought to the attention of the Employer.

Step 2

In the event the matter remains unresolved in Step 1 above after five (5) working days, within five (5) working

days thereafter, the alleged grievance may be referred in writing to the Business Manager(s) of the Union(s) affected and the site construction manager or Labor Relations representative of the Employer(s) for discussion and resolution. A copy of the written grievance shall also be mailed, faxed, or emailed to the Primary Employer.

Step 3

In the event the matter remains unresolved in Step 2 above within five (5) working days, within five (5) working days thereafter, the grievance may be referred in writing to the Business Manager(s) of the affected Union(s) involved and the Manager of Labor Relations of the Employer(s) or the Manager's designated representative and the Primary Employer for discussion and resolution.

Step 4

If the grievance is not settled in Step 3 within five (5) working days, within five (5) days thereafter, either party may request the dispute be submitted to arbitration or the time may be extended by mutual consent of both parties. The request for arbitration and/or the request for an extension of time must be in writing with a copy to the Primary Employer. Should the parties be unable to mutually agree on the selection of an Arbitrator, selection for that given arbitration shall be made by seeking a list of seven (7) labor arbitrators with construction experience from the Federal Mediation and Conciliation Service and alternately striking names from the list of names on the list until the parties agree on an Arbitrator or until one name remains. The first party to strike a name from the list shall alternate between the party bringing forth the grievance and the party defending the grievance. Primary Employer shall keep a record of the sequence and shall notify the parties to the grievance as to which party has the right to strike a name first.

8.5. The Arbitrator shall conduct a hearing at which the parties to the grievance shall be entitled to present testimonial and documentary evidence. Hearings will be transcribed by a certified court reporter. The parties shall be entitled to file written briefs after the close of the hearing and receipt of the transcript.

8.6. Upon expiration of the time for the parties to file briefs, the Arbitrator shall issue a written decision that will be served on all parties and on the Primary Employer. The Arbitrator shall have the authority to utilize any equitable or legal remedy to prevent and/or cure any breach or threatened breach of this Agreement. The Arbitrator's decision shall be final and binding as to all parties signatory to this Agreement.

8.7. The cost of the Arbitrator and the court reporter, and any cost to pay for facilities for the hearing, shall be borne equally by the parties to the grievance. All other costs and expenses in connection with the grievance hearing shall be borne by the party who incurs them.

8.8. The Arbitrator's decision shall be confined to the issue(s) posed by the grievance and, except as provided in Section 13.1.1, the Arbitrator shall not have the authority to modify, amend, alter, add to or subtract from any provision of this Agreement.

8.9. Any party to a grievance may invite the Primary Employer to participate in resolution of a grievance. The Primary Employer may, at its own initiative, participate in Steps 1 through 3 of the grievance procedure.

8.10. In determining whether the time limits of Steps 2 through 4 of the grievance procedure have been met, a written referral or request shall be considered timely if it is personally delivered, sent by overnight mail or faxed within the five (5) working day period. Any of the time periods set forth in this Article may be extended in writing by mutual consent of the parties to the grievance, and any written referral or request shall be considered timely if it is personally delivered, sent by overnight mail or faxed during the extended time period.

9. JURISDICTIONAL DISPUTES

9.1. The assignment of work will be solely the responsibility of the Employer performing the work involved, and shall be made in accordance with traditional and customary building trades craft jurisdiction. All jurisdictional

disputes between or among the Unions and their employees, parties to this Agreement, shall be settled and adjusted according to the plan described in this Article 9. Decisions rendered shall be final, binding and conclusive on the Employers involved and the Unions that are parties to this Agreement. Provisions of Section 6.1 apply to any issues associated with jurisdictional disputes.

9.2. A party challenging an assignment shall notify all affected Unions, the Employer and the Local Council, by facsimile, within two (2) days of the time that a dispute occurs. All disputes involving craft work assignments shall be referred to the Local Council which shall convene a meeting with the affected Unions and Employer within two (2) days. Should the Local Council, the affected Unions and the Employer fail to resolve the dispute within five (5) working days from the date they were notified of the dispute, then the matter shall be immediately referred to the affected International Unions with which the local unions are affiliated and they and the Employer shall have the opportunity to resolve the dispute.

9.3. Should the International Unions and the Employer fail to resolve the dispute within five (5) work days from the date they were notified of the dispute, then the matter shall be referred by facsimile by any International Union or Employer directly involved in the dispute for arbitration to the arbitrator chosen by the International Unions from among Gerald McKay, Thomas Angelo, William Riker and Emily Maloney, to resolve jurisdictional disputes under this procedure. If none of these arbitrators is available, an arbitrator shall be selected as provided in Section 8.4, Step 4.

9.4. The arbitrator will set and hold a hearing within seven (7) days of the referral to him or her. The arbitrator shall notify the Employer and the appropriate International Unions by facsimile of the place and time chosen for the hearing. A failure of any party or parties to attend said hearing without good cause, as determined by the arbitrator, shall not delay the hearing of evidence or issuance of a decision by the arbitrator. The time period set forth herein can be extended by mutual agreement of the parties in writing.

9.5. The arbitrator shall issue a decision within three (3) days after the case has been closed. The decision of the arbitrator shall be final and binding on all parties to the dispute. This action of the arbitrator shall be predicated upon the particular facts and evidence presented regarding this dispute and shall be effective only on this particular job.

9.6. In rendering the decision, the arbitrator shall determine first whether a previous decision or agreement of record between the parties to the dispute governs. If the arbitrator finds that the dispute is not covered by an appropriate or applicable decision or agreement of record, the arbitrator shall then consider whether there is an applicable agreement between the crafts governing the case. If no such agreement is in effect, the arbitrator shall then consider the established trade practice and prevailing practice in the locality.

9.7. The arbitrator is not authorized to award back pay or any damages for a mis-assignment of work, except for a willful violation of a well established jurisdiction. Nor may any party to this procedure bring an independent action for back pay or any other damages based upon a decision of the arbitrator.

9.8. Each party to the arbitration shall bear its own expense for the arbitration. The fees and expenses of the arbitrator will be shared equally by the affected International Unions and the Employer.

9.9. The Employer shall not be subject to disputes regarding work assignments made by its subcontractors. However, the Employer must ensure that its subcontractors performing work under the terms and conditions of this Agreement follow the procedures of this Article.

10. JOINT LABOR/MANAGEMENT MEETINGS

10.1. During the period of any Covered Work performed under this Agreement, an initial joint Labor/Management meeting will be held before the particular work commences, and thereafter joint meetings will be held as needed between the Primary Employer, the other Employers, the Local Council and the

signatory Unions. The purpose of these meetings is to promote harmonious labor/management relations, ensure adequate communications and advance the proficiency and efficiency of the craft workers and contractors performing work at the Project. These meetings will also include discussion of safety, craft resource requirements, scheduling and productivity of work performed at the Project.

10.2. A Pre-Job Conference will be held prior to the commencement of work to establish the scope of work in each Employer's contract. When a contract has been let to an Employer(s) covered by this Agreement, a Pre-Job Conference and/or Mark-Up Meeting shall be required upon request of any Union, Employer or the Primary Employer.

11. SUCCESSORSHIP AND SURVIVABILITY

11.1. This Agreement is and shall be binding and legally effective upon (i) any successor to Primary Employer, whether by merger, consolidation, acquisition or otherwise, and (ii) any person or entity that acquires all or any portion of Primary Employer's right, title or interest in the Project whether by sale, lease, or other transfer, or contribution to partnership, joint venture or other entity. Any agreement for a sale, lease, contribution or other transfer of the Project by the Primary Employer, or an agreement for a merger or acquisition including ownership or control of Primary Employer, shall include an express assumption of the obligations and undertakings of Primary Employer under this Agreement, including this successorship provision. Within ten (10) days following the close of any sale, acquisition, merger, lease or other transfer covered by this Section 11.1, Primary Employer shall provide the State Council and the Local Council with written notice thereof and an original, executed assumption of this Agreement. Any sham transfer is a breach of this clause and shall not release Primary Employer from any of its obligations or undertakings under this Agreement.

11.2. This Article 11 shall be enforceable in any court of competent jurisdiction, and shall not be subject to the grievance procedure of Article 8.

12. GENERAL PROVISIONS

12.1. If any article or provision of this Agreement shall become invalid, inoperative and/or unenforceable by operation of law or by declaration of any competent authority of the executive, legislative, judicial or administrative branches of the federal or state government, the Employers and the State Council shall suspend the operation of such article or provision during the period of its invalidity, and the Primary Employer and the State Council shall negotiate in its place and stead an article or provision that will satisfy the objections to its validity and that, to the greatest extent possible, will be in accord with the intent and purpose of the article or provision in question. The new article or provision negotiated by the Primary Employer and the State Council shall be binding on all parties signatory to this Agreement.

12.1.1. If the Primary Employer and the State Council are unable within thirty (30) calendar days to negotiate a substitute article or provision, either of them may at any time thereafter submit the matter directly to interest arbitration pursuant to the procedures set forth in Section 8.4, Step 4, and Sections 8.5 through 8.7. The Arbitrator shall have the authority to modify, amend and alter the Agreement by providing a substitute article or provision to replace the one(s) that have become invalid, inoperative or unenforceable. The Arbitrator's decision, and the new article or provision, shall be final and binding on all parties signatory to the Agreement.

12.2. If any article or provision of this Agreement shall be held invalid, inoperative or unenforceable by operation of law, or by any of the above mentioned tribunals of competent jurisdiction, the remainder of the Agreement or application of such article or provision to persons or circumstances other than to which it has been held invalid, inoperative or unenforceable shall not be affected thereby.

12.3. Except as enumerated in this Agreement, all other terms and conditions of employment described in the Master Agreement of the Union having traditional and customary jurisdiction over the Covered Work shall apply.

12.4. The provisions of this Agreement shall take precedence over conflicting provisions of any Master Agreement or any other collective bargaining agreement.

12.5. Each person executing this Agreement represents and warrants that he or she is authorized to execute this Agreement on behalf of the party or parties indicated.

12.6. This Agreement may be executed in any number of counterparts, and each counterpart shall be deemed to be an original document. All executed counterparts together shall constitute one and the same document, and any signature pages may be assembled to form a single original document.

12.7. To the fullest extent consistent with the applicable Master Agreement and trust agreement, it is agreed that any liability under this Agreement by Primary Employer, the State Council, the Local Council, a Union, or any other Employer shall be several and not joint. Any alleged breach of this Agreement by a party shall not affect the rights, liabilities, obligations, and duties among the other parties or between that party and any other party.

12.8. Any notices required under this Agreement shall be given as follows:

To Primary Employer:

Ed Warner, Project Manager
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678
Telephone: (209) 333-6370 ext. 100

To the State Council:

Robert L. Balgenorth, President
State Building and Construction Trades
Council of California
1225-8th Street, Suite 375
Sacramento, CA 95814
Telephone: 916-443-3302

With a copy to:

Scott W. Blek
Galati Blek LLP
100 N. Brand Blvd., Suite 618
Glendale, CA 91203
Telephone: (818) 476-0063

To the Local Council:

Building and Construction Trades
Council of San Joaquin, Calaveras, and
Alpine Counties
P.O. Box 5306
Stockton, CA 95205
Telephone: (209) 467-1849
With a copy to:

Marc D. Joseph
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
Telephone: 650-589-1660

Either party may notify the other in writing if its person designated to receive notice is changed.

13. ANTI-DISCRIMINATION

13.1. During the performance of this Agreement, the Employers and the Unions shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave. The Employers and the Unions shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.

14. WAIVER

14.1. The parties hereby acknowledge that this Agreement is a lawful pre-hire agreement within the meaning of Section 8(f) of the National Labor Relations Act; and the Primary Employer and each other Employer hereby expressly waives

its right to contest, challenge, repudiate or void (hereinafter collectively "challenge") this Agreement, directly or indirectly, on any basis, in any proceeding before any federal, state or local court, agency or other tribunal, including the National Labor Relations Board, or before any arbitrator or hearing officer, including any challenge to the validity of this Agreement that is raised as a defense to any action or claim brought by the Unions. This Agreement shall be a complete defense to any such challenge.

14.2. Primary Employer and each Employer further agrees that it shall not solicit, finance or participate in any challenge to this Agreement by any other person or entity. Payment of regular annual dues to an organization or association does not constitute "solicitation," "financing" or "participation in" a challenge as those terms are used in this Agreement.

14.3. This Article shall be enforced pursuant to Article 8 of this Agreement and any grievance shall commence at Step 3 of Section 8.4. The parties agree that the economic damages to the Unions from a breach of this Article include the reasonable fees and costs of defense.

15. TERM OF AGREEMENT

15.1. This Agreement shall be effective upon commencement of commercial operation of the Project, and shall continue for thirty (30) years thereafter (the "Term"). This Agreement will be reviewed and revised if necessary by the State Council, Local Council and Primary Employer every then (10) years during the Term. Any revisions, deletions or additions at that time will be agreed to by all three parties.

15.2. In the event that the Application for Certification submitted to the California Energy Commission for the Project is withdrawn and the Application proceeding is terminated pursuant to 20 CCR § 1709.8, or the Application is denied by the California Energy Commission and the time periods for reconsideration under Public Resources Code § 25530 and appeal of the denial under Public

Exhibit K
Remote Monitor System

Seller, at its sole discretion, at any time during the term of this Contract, may place at no cost to Buyer a remote monitor system ("Remote Monitor System") at a location selected by Seller, to access data from the control system of the Combustion Turbine and Steam Turbine. The Remote Monitor System (which is provided solely for Seller's purposes) will be connected (as described in (g) below) to a diagnostic center located in either Orlando, Florida or Erlangen, Germany. Buyer agrees and consents to such installation and connection. Buyer agrees to provide Seller and its representatives reasonable access to the area where the Remote Monitor System will be located to effect such installation, removal or modification, and to carry out any other activities to which Seller is entitled pursuant to this Exhibit.

The Remote Monitor System includes the following general components:

1. A personal computer system including software.
2. Interconnection devices to interface with the "Link" as further described in (g) below.
3. The software package and configuration to collect and monitor data from the control system, and any other devices mutually agreed upon between the Parties.

The following conditions and/or requirements shall apply to the Remote Monitor System:

- (a) The Remote Monitor System is passive and neither it nor its installation interferes with the operation of the Combustion Turbine(s).
- (b) Title to the Remote Monitor System hardware and software shall remain with Seller or its affiliates. No ownership or license or any other right, title or interest to or in the Remote Monitor System is granted to Buyer or any other party. Buyer shall not (and shall not permit others to) alter the hardware, software, connections or configuration of the Remote Monitor System or its connection to the data stream, and will not add tags, links to other devices or systems or otherwise change the Remote Monitor System setup, function and configuration, or connectivity.
- (c) The Remote Monitor System may include the capability for display of certain data which, in the sole discretion of Seller, Buyer may view, and Seller may furnish to Buyer the password(s) necessary to do so. Seller assumes no liability whatsoever (whether express or implied) for any use, application, action, (or inaction) or interpretation of any data viewed or otherwise obtained by Buyer.
- (d) Buyer agrees not to attempt to access any data, displays, information, software or other parts or functions of the Remote Monitor System that have not been specifically made available to it by Seller, whether or not protected or otherwise restricted.
- (e) Buyer shall not (and shall not permit others to) access, copy, download, disassemble, reverse engineer, reverse assemble, decompile, tamper with or otherwise attempt to derive the source code of any Remote Monitor System software, including without

limitation any third party software. Buyer shall indemnify and hold harmless Seller (and its suppliers or vendors) from all claims, losses, damages, judgments, expenses, including attorney's fees and litigation expenses, arising out of or related to any such violation of this paragraph (e) by Buyer (including Buyer's employees) or its subcontractors, vendors or suppliers.

Seller shall not, except as may be required (i) to assist Seller in performance of its obligations under this Contract or (ii) by any act, statute, law or ruling of governmental authority, release, divulge or otherwise make available to unaffiliated third parties any data or information dealing with the operating characteristics of the Combustion Turbine and Steam Turbine as obtained through the Remote Monitor System in a manner which identifies such information as specifically pertaining to Buyer.

- (f) Seller shall, at its own cost, defend, indemnify and hold harmless Buyer, its affiliates, officers, employees, agents, assigns and successors in interest from and against any and all liability, damages, losses, claims, demands, causes of action and other expenses (including attorney fees) arising out of any claims of infringement by Seller of any patents, copyrights, or other intellectual property rights based upon Seller's manufacture, installation or use of the Remote Monitor System. Notwithstanding the foregoing, Seller will have no duty or obligation under this paragraph f to the extent that the Remote Monitor System or any of its components is modified by Buyer or its subcontractors after delivery and by reason of said modification, a suit is brought against Buyer. In addition, if by reason of such modification, a suit or proceeding is brought against Seller, Buyer shall protect Seller in the same manner and to the same extent that Seller has agreed to protect Buyer under the first sentence of this paragraph (f).
- (g) Buyer shall make an appropriate dedicated communication link (phone line and/or other communication link acceptable to Seller, hereinafter "Link") available for Seller connection to the Remote Monitor System assigned specifically for use of the Remote Monitor System. The Link shall be and remain continuously connected to the Remote Monitor System unless Buyer receives written authorization from Seller to disconnect. The Remote Monitoring System shall comply with all applicable NERC cyber security requirements. In the event that, after the Effective Date, Buyer's facility is subject to security requirements of NERC that are related to the Remote Monitor System and the Remote Monitor System does not meet such requirements, then the Parties will reasonably cooperate to cause the Remote Monitor System interfaces to become compliant with such NERC security requirements. Seller's costs related to the modification of hardware and software of the Remote Monitor System shall be borne by Seller. In the event that, the Remote Monitor System is not compliant, or the Parties are unable to cause the Remote Monitor System to become compliant, then Buyer shall have the right to disconnect the Remote Monitor System until such time as the Remote Monitor System becomes compliant. Seller will provide such cooperation and documentation as reasonably requested by Buyer to demonstrate such compliance by the Remote Monitor System as required by NERC or any other applicable Government Authority.
- (h) Seller will provide instruction to Buyer's personnel on-site concerning the Remote Monitor System features to which Buyer will have access.

- (i) Buyer shall supply and maintain a reliable electric power source for the Remote Monitor System.

The Remote Monitor System may be removed by Seller, at no expense to Buyer, at any time during the Term of the Contract or upon or after termination of this Contract, in the sole discretion of Seller and without recourse by Buyer. However, in the event the Contract is either terminated by Buyer for its convenience, or terminated by Seller for cause, Seller shall (without prejudice to any other rights or remedies) be entitled to recover reasonable expenses incurred by Seller for the installation, maintenance and removal of the Remote Monitor System.

- (j) The Remote Monitor System shall in no case be deemed a deliverable hereunder and Seller's obligations under the provisions of this Contract shall not apply to the Remote Monitor System. FURTHER WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, OR ANY PROTECTIONS AGAINST OR DISCLAIMERS OR LIMITATIONS OF LIABILITY SET FORTH IN THE AGREEMENT, WHETHER BASED IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE (1) SELLER SHALL HAVE NO OBLIGATION OR LIABILITY WHATSOEVER FOR ANY FAILURE TO FURNISH ANY INFORMATION OR DATA FROM THE REMOTE MONITOR SYSTEM TO BUYER OR ADVISE OR NOTIFY BUYER REGARDING ANY CONDITIONS OR EVENTS DESCRIBED IN OR INDICATED IN ANY SUCH INFORMATION OR DATA, (2) ANY INFORMATION OR DATA PROVIDED TO BUYER IS ON AN "AS IS, WHERE IS" BASIS, WITHOUT ANY WARRANTIES WHATSOEVER WHETHER STATUTORY, EXPRESS, OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR PURPOSE, ARISING FROM COURSE OF DEALING OR USAGE OF TRADE, AS TO THE ACCURACY, ADEQUACY, TIMELINESS, COMPLETENESS OR USEFULNESS THEREOF, OR OTHERWISE, AND (3) NEITHER SELLER NOR ITS SUPPLIERS WILL UNDER ANY CIRCUMSTANCES BE LIABLE UNDER ANY THEORY OF RECOVERY, WHETHER IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), UNDER WARRANTY OR OTHERWISE FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGE WHATSOEVER; DAMAGE TO OR LOSS OF PROPERTY OR EQUIPMENT; LOSS OF PROFITS OR REVENUE; LOSS OF USE OF BUYER'S MATERIAL, EQUIPMENT OR POWER SYSTEM; CLAIMS OF CUSTOMERS; OR INCREASED COSTS OF ANY KIND.

1474357.4

CHANGE ORDER NO.1

Contract: Amended and Restated Program Parts, Non-Program Parts, Miscellaneous Hardware, Program Management Services and Scheduled Outage Services Contract, dated November 1, 2014

Effective Date: April 19, 2018

Buyer: Northern California Power Agency

Seller: Siemens Energy, Inc.

1. **Introduction.** This Change Order No.1 (this "Change Order") is agreed to pursuant to that certain Amended and Restated Program Parts, Non-Program Parts, Miscellaneous Hardware, Program Management Services and Scheduled Outage Services Contract, dated November 1, 2014 (the "Contract") by and between Siemens Energy, Inc. ("Seller") and Northern California Power Agency ("Buyer"). Capitalized terms used but not defined herein shall have the meaning given them in the Contract. This Change Order as submitted by one Party to the other shall constitute a request for a Change Order. Upon its countersignature in the space provided below, this Change Order shall constitute a Change Order within the meaning of the Contract.

2. **Definitions:** All capitalized terms used herein without definition shall have the meanings ascribed to them in the Contract.

A. The following definitions in the Contract are hereby amended as follows:

"Escalation Factor" means the net percentage increase or decrease (as the case may be) in the U.S. Consumer Price Index – Urban CUUR0000SA0 over the period from the published value for February 2018 ("Base Value") through the value as of the date of the invoice utilizing the most current escalation data that is released at the time such invoice is issued. If such index ceases to be published then such similar substitute index as is mutually agreed to by the Parties, shall apply. All payments to Seller of Fees shall be in U.S. Dollars, escalated at the time of invoice according to the Escalation Factor. All Fees are subject to the Escalation Factor calculated from the Base Value. With each invoice, Seller shall provide to Buyer the Escalation Factor applicable for such invoice. The Escalation Factor shall be calculated by the following formula:

Escalation Factor = $1 + ((X - \text{Base Value}) / \text{Base Value})$, where X is the lesser of:
(a) the latest month's U.S. Consumer Price Index-Urban (CUUR0000SA0) at the time such invoice is issued or (b) the Escalation Factor Cap.

"Escalation Factor Cap" means the net total allowable increase in the U.S. Consumer Price Index – Urban (CUUR0000SA0) over the period from the Base Value through the date of the applicable invoice during the Term. The Escalation Factor Cap shall be calculated by the following formula:

Escalation Factor Cap = the greater of:

(a) Base Value * (1.04)^(n/12), where n = number of months from the base date of February 2018 to the date of invoice, or

(b) the latest month's value for the U.S Consumer Price Index-Urban (CUUR0000SA0) at the time such invoice is issued * 0.95.

B. The following definitions are hereby added to the Contract as follows:

"Combustion Turbine Generator Inspection Services" has the meaning set forth in Exhibit A, Addendum 6.

"Energy Management Consultant Services" has the meaning set forth in Exhibit H.

"Flex Firing" has the meaning set forth in Exhibit A, Addendum 7.

"Flex Firing Variable Fee" has the meaning set forth in Exhibit E, Payment Schedule.

"Replacement Rotor" has the meaning set forth in Exhibit A, Addendum 4.

"Rotor Exchange" has the meaning set forth in Exhibit A, Addendum 4.

"Steam Turbine Heating Blanket Modification" has the meaning set forth in Exhibit A, Addendum 5.

"Steam Turbine Generator Inspection Services" has the meaning set forth in Exhibit A, Addendum 6.

3. **Scope of Change.** The purpose of this Change Order is to extend the Contract Term, revise the Contract pricing, and add the following additional scope:

3.1 **Rotor Exchange.**

Addition of Exhibit A, Addendum 4, *Rotor Exchange Workscope*. Exhibit A, Addendum 4, is hereby added to the Contract as set forth in Attachment 1 of this Change Order.

3.2 **Steam Turbine Heating Blanket Modification.**

Addition of Exhibit A, Addendum 5, *Steam Turbine Heating Blanket Workscope*. Exhibit A, Addendum 5, is hereby added to the Contract as set forth in Attachment 2 of this Change Order.

3.3 **Combustion Turbine Generator and Steam Turbine Generator Inspection Services**

Addition of Exhibit A Addendum 6 Combustion Turbine Generator and Steam Turbine Generator Inspection *Workscope*. The following Exhibit A, Addendum 6, is hereby inserted to the Contract as set forth in Attachment 3 of this Change Order.

3.4 **Flex Firing.**

Addition of Exhibit A, Addendum 7, Flex Firing Workscope. Exhibit A, Addendum 7, is hereby added to the Contract as set forth in Attachment 4 of this Change Order.

4. **Combustion Turbine Program Parts List.**

Exhibit B, Combustion Turbine Program Parts List, of the Contract is hereby deleted in its entirety and replaced with Exhibit B (Rev. 1) attached to this Change Order as Attachment 5. As of the Change Order Effective Date, all references to Exhibit B in the Contract shall mean Exhibit B (Rev. 1).

5. **Projected Scheduled Outage Plan.**

Exhibit C, Projected Scheduled Outage Plan, of the Contract is hereby deleted in its entirety and replaced with Exhibit C (Rev. 1) attached to this Change Order as Attachment 6. As of the Change Order Effective Date, all references to Exhibit C in the Contract shall mean Exhibit C (Rev. 1).

6. **Service Bulletin.**

Amendment to Exhibit D, Addendum 1, Service Bulletin. Exhibit D, Addendum 1, Service Bulletin, of the Contract is hereby deleted in its entirety and replaced with Exhibit D, Addendum 1 (Rev. 1) attached to this Change Order as Attachment 7. As of the Change Order Effective Date, all references to Exhibit D, Addendum 1, in the Contract shall mean Exhibit D, Addendum 1 (Rev. 1).

7. **Payment Schedule**

Amendment to Exhibit E Payment Schedule. Exhibit E, Payment Schedule, of the Contract is hereby deleted in its entirety and replaced with the following Exhibit E (Rev. 1) attached to this Change Order as Attachment 8. As of the Change Order Effective Date, all references to Exhibit E in the Contract shall mean Exhibit E (Rev. 1).

8. **Cancellation.**

Amendment to Exhibit G Cancellation Schedule. Exhibit G, Cancellation Schedule, of the Contract is hereby deleted in its entirety and replaced with Exhibit G (Rev. 1), as set forth in Attachment 9 of this Change Order. As of the Change Order Effective Date, all references to Exhibit G in the Contract shall mean Exhibit G (Rev. 1).

9. **Energy Management Consultant Services.**

Addition of Exhibit H Energy Management Consultant Services. The following Exhibit H, Energy Management Consultant Services, is hereby added to the Contract as set forth in Attachment 10 of this Change Order.

10. Rotor Exchange Warranty

Parts provided by Seller pursuant to Exhibit A, Addendum 4, of the Contract shall be Non-Program Parts under the Miscellaneous Hardware and Non-Program Parts Warranty and Exclusive Remedy in Section 8.2 of the Contract.

11. Steam Turbine Heating Blanket Modification Warranty

Parts provided by Seller pursuant to Exhibit A, Addendum 5, shall be Non-Program Parts warranted under the Miscellaneous Hardware and Non-Program Parts Warranty and Exclusive Remedy in Section 8.2 of the Contract.

12. Combustion Turbine Generator and Steam Turbine Generator Inspection Warranty

Services provided by Seller pursuant to Exhibit A, Addendum 6, shall be Services warranted under the Services Warranty in Section 8.3 of the Contract.

13. Contract Term. The Sunset Date provided under Section 5.1 (ii) of the Contract is hereby extended six years so that the new Sunset Date is November 1, 2041.

14. Timing. This Change Order will be in effect as of the Effective Date first written above.

15. Payment and Term. Payment terms will be pursuant to the Contract as amended by this Change Order. Payments shall be made per Section 4.4 of the Contract.

16. Other Terms and Conditions. Except as otherwise specifically provided in this Change Order, all other terms and conditions of the Contract shall remain in full force and effect.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the Parties, intending to be legally bound, have caused this Change Order No. 1 to be executed by their duly authorized representatives to be effective as of the date first above written.

Siemens Energy, Inc.

Northern California Power Agency

By: _____

Name:

By: _____

Name

Title:

Title:

Date:

Date:

Siemens Energy, Inc.

By: _____

Name:

Title:

Date:

Attachment 1
Exhibit A
Addendum 4
Rotor Exchange Workslope

1. Rotor Exchange

Seller shall supply to Buyer a total of two (2) refurbished Combustion Turbine replacement rotors (the "Replacement Rotor(s)") during the Term and, each time a Replacement Rotor is supplied, Seller shall remove and retain the existing on-Site rotor from the Combustion Turbine (the "Outgoing Rotor(s)"), all as further detailed in this Addendum 4 ("Rotor Exchange").

Both Replacement Rotors will be refurbished and inspected to Siemens OEM requirements including the applicable service bulletins and any technical issue updates and fast start capability in effect at the time of refurbishment. The belly bands will be supplied with Seller's best available material, and qualified for additional service. The Replacement Rotors will have a deemed estimated life of the earlier of one hundred and thirty three thousand (133,000) EBH or two thousand five hundred (2,500) normal starts (NS) from its installation in the applicable Combustion Turbine. However, this estimate shall not constitute a warranty, guarantee, or otherwise.

A low speed balance will be performed on the Replacement Rotor. Seller shall notify Buyer 30 days prior to rotor balancing and Buyer shall have the right to witness the rotor balancing.

Buyer may elect to have an optional high speed balance performed for an additional price quoted at the time of election.

Within 30 days of Delivery of the Replacement Rotor, Seller shall provide a rotor refurbishment report.

2. Rotor Exchange Schedule

The schedule for Rotor Exchange #1 and #2 is provided in Exhibit C. However, this schedule may be shifted to alternate periods, upon agreement of the Parties. If the Rotor Exchange is not performed during a Major Inspection, Seller would require a Change Order for additional work scope. Buyer shall notify Seller 180 days in advance of the Scheduled Outage requiring the Rotor Exchange. For notifications less than 180 days, Seller will make reasonable efforts to support the outage dates, however, Seller does not guarantee availability of a Replacement Rotor in time to support the outage.

3. Bearings

The Rotor Exchange also includes the exchange by Seller of the existing journal bearings in the Combustion Turbine ("Outgoing Bearing") with new or refurbished journal bearings that match the applicable Replacement Rotor's specific journal dimensions ("Replacement Bearings").

4. Delivery, Title, Risk of Loss and Transportation

4.1 Delivery of Outgoing Rotors and Outgoing Bearings

Delivery of each Replacement Rotor and Replacement Bearing provided hereunder shall be made when the transporting conveyance comes to a rest at the place of unloading at the delivery point ("Delivery"). The Delivery point for Replacement Rotors and Replacement Bearings, in the

absence of special shipping instructions, shall be the area on the Site or adjacent laydown area where the cargo will be unloaded. If the Replacement Rotors arrive on the Site while Seller is on the Site performing the Rotor Exchange, Seller shall be responsible for unloading the cargo from the transporting conveyance upon Delivery. If the Replacement Rotors arrive prior to the Seller's arrival at Site for performance of the Rotor Exchange, then Buyer shall be responsible for unloading the cargo from the transporting conveyance upon Delivery.

If Delivery cannot be accommodated by Buyer, then Delivery will be made to a Buyer-designated storage facility and Buyer shall be responsible for all additional costs, including storage, transportation to and from such storage facility, and demurrage.

4.2 Title and Risk of Loss to the Replacement Rotors and Replacement Bearings

Risk of loss or damage of each Replacement Rotor or Replacement Bearing shall pass from Seller to Buyer upon Delivery of such Replacement Rotor or Replacement Bearing. Legal and equitable title to each Replacement Rotor or Replacement Bearing shall pass from Seller to Buyer upon installation of such Replacement Rotor or Replacement Bearing into the Combustion Turbine. Buyer and Seller agree that Seller may elect to maintain title to and right to possession of shipping containers it uses during the transportation of the Replacement Rotor or Replacement Bearing to the Site. A rotor skid will be used on-site for any required storage if Replacement Rotor is delivered prior to the outage,

4.3 Transportation of the Replacement Rotors and Replacement Bearings

4.3.1 Transportation and Storage

When a Replacement Rotor or Replacement Bearings are ready for shipment, Seller will (i) in the absence of shipping instructions, inform Buyer of pending shipment and Buyer will thereafter promptly give shipping instructions to Seller, (ii) determine the method of transportation and the routing of the shipment and (iii) ship the Replacement Rotor or Replacement Bearings freight prepaid by Normal Carriage to the Site.

4.3.2 Normal Carriage and Special Transportation and Services

The Change Order pricing is based on transportation and Delivery by Normal Carriage of the Replacement Rotors, Replacement Bearings Outgoing Rotors, or Outgoing Bearings.

Buyer agrees to pay or to reimburse Seller for any transportation charges for Replacement Rotors, Replacement Bearings Outgoing Rotors, or Outgoing Bearings where transportation charges are in excess of regular charges for Normal Carriage, including additional charges for special routing, special trains, specialized riggers trailers, lighterage, barging and air transport.

Buyer also agrees to pay or to reimburse Seller for any cost incurred by Seller or charge resulting from special services performed in connection with the transportation of the Replacement Rotors, Replacement Bearings Outgoing Rotors,

or Outgoing Bearings. Buyer shall bear the risk and expense for permits and easements required for the access roadways, bridges or railways to the Site and for any required modifications to the transportation route to and from the Site including the construction and repair of transportation and handling facilities, bridges and roadways.

4.4 Return of Outgoing Rotors or Outgoing Bearings

Seller shall pack and arrange for transportation off the Site of the Outgoing Rotors and Outgoing Bearings upon Seller's removal from the Combustion Turbine. Legal and equitable title and risk of loss or damage to same will transfer from Buyer to Seller upon such Outgoing Rotor or Outgoing Bearings removal from the Combustion Turbine provided Outgoing Rotor and Outgoing Bearings are in Seller's care, custody and control.

5. Blading and Other Parts

Replacement Rotors will arrive at the Site either bladed or unbladed at Seller's discretion. Seller may elect to remove the blades and other parts from the Outgoing Rotors on-Site prior to shipment to Seller's facility or to leave such blades and other parts installed on the Outgoing Rotors when they are shipped to Seller's facility. Title to, possessory right to, and risk of loss to such replaced blades and other parts shall transfer from Buyer to Seller upon such blades and other parts replacement and the Parties hereby agree that such blades and other parts shall be scrap with a deemed value of \$0.

6. Condition of Outgoing Rotors

The Outgoing Rotor(s) provided by Buyer shall not have exceeded one hundred thirty-three thousand (133,000) EBH or two thousand five hundred (2,500) normal starts (NS) unless Seller, through the TMS process and as determined by Seller's prudent engineering judgment, allows such rotor to operate beyond 133,000 EBH / 2,500 NS and such additional EBH / NS shall not be considered beyond normal wear and tear. Additionally, the Rotor Exchanges are based the Outgoing Rotors received by Seller having no more than the normal wear and tear expected for a rotor of the same class and style and with the equivalent EBH and ES as the applicable Outgoing Rotor, as per the Seller's operation and maintenance recommendations, the Service Bulletin, and in conditions such that refurbishment to bring to a serviceable condition is limited to standard shop inspections, cleaning, replacement of turbine section through-bolts and nuts, , torque tube scalloping, and re-assembly, as applicable, due to such normal wear and tear. If either or both of the Outgoing Rotors require parts or services to repair damage that Seller, in its determination through an engineering analysis that Buyer operated the Outgoing Rotors outside of Seller's operation and maintenance recommendations, or fuel specification, or water specification, or air specification or Service Bulletin., considers to be beyond such as described in the immediately preceding sentence, then Seller shall be entitled to a Change Order from Buyer, satisfactory to Seller, to equitably compensate Seller for any additional work or replacement parts required to repair the portion of the applicable Outgoing Rotor that contained such damage beyond normal wear and tear

Attachment 2

Exhibit A

Addendum 5

Steam Turbine Heating Blanket Modification Workscope

Work Scope 1: Mobilization and Demobilization of Personnel and Tooling

- Mobilize tooling to site
- Set up tooling
- Inventory, pack, and load tools
- Coordinate return shipping of tools
- Mobilize/demobilize personnel

Work Scope 2: Mechanical Installation Support for Service Bulletin Implementation

- Provide mechanical support for implementation of Service Bulletin
- Provide supervisory support for implementation of Service Bulletin

Work Scope 3: Controls Implementation for Service Bulletin

- Mobilize Commissioning Engineer and Tools
- Implement controls changes associated with Service Bulletin

Work Scope 4: Thermoprozess Heating Systems Technicians

- Install the electric heating blankets

Work Scope 5: Heat Blanket engineering hardware and documentation

- Heating blankets, temperature sensors, junction boxes and local control cubicles for HP turbine
- Preparation of changes in the control system
- Specification of the increased gland steam temperature needed
- Specification of cabling, etc.
- Necessary installation information
- All relevant documentation updated

EXCLUSIONS

- Electrical power and connection cabling, 160 kW, 3-phase, 480V

- Cables and wiring from the Junction Box to the DCS

Attachment 3

Exhibit A Addendum 6

SGEN6-1000A Generator Inspection Scope of Work

All disassembly, inspections, and assembly will be performed per applicable Siemens' field service procedures. The procedures may include visual inspections, NDE inspections, removal, and replacement as necessary. The following scope illustrates the sections of the Combustion Turbine Generator to be inspected but may not reflect the final work scope performed during the Scheduled Outages. Variations in work scope performed by Seller, upon mutual agreement by Buyer, will not be considered a "Change" to the Contract (i.e. Seller shall not adjust the Fees invoiced to Buyer). Components which have reached their repair/replacement interval or were deemed not fit for continued service through the inspection process can be purchased upon Change Order to the Contract.

Combustion Turbine Generator Inspection Services scope of work is per the attached SB4-17-0026-GN-EN-01 for the Medium and Major CT Generator Inspections provided in Appendix C only.



**SB4-17-0026-GN-EN-
01c.pdf**

Steam Turbine Generator (SGEN6-100A)

Work Scope 1: Siemens Generator Medium Inspection

1	Mobilize site
1.1	Travel in
1.2	Site Specific Safety Training
1.3	Set up tooling
2	Disassemble the Generator
2.1	Remove & Disassemble Bearings
3	SIEMENS Generator Medium Inspection
3.1	Visual Inspections
3.1.1	Stator Inspections
3.1.1.1	Inspect end winding spacers
3.1.1.2	Inspect circuit ring and supports
3.1.1.3	Inspect end winding supports and bracing
3.1.1.4	Inspect the end winding insulation
3.1.1.5	Inspect the surface sealing
3.1.1.6	Inspect the winding end leads
3.1.1.7	Inspect the bolted connections of the main leads
3.1.1.8	Inspect the cable insulation for cracks, wear, deterioration
3.1.1.9	Inspect the RTD connections
3.1.1.10	Inspect the core and air guide sealing (as accessible)
3.1.2	Rotor Inspections
3.1.2.1	Inspect the bearing journals
3.1.2.2	Inspect the sealing surfaces
3.1.2.3	Inspect the fans
3.1.2.4	Inspect the balance weights (as accessible)
3.1.2.5	Inspect the pole coils (as accessible)
3.1.2.6	Borescope the end windings and connections
3.1.2.7	Borescope the rotor-stator air gap
3.1.3	Exciter Inspection
3.1.3.1	Check condition of diode wheel
3.1.3.2	Check condition of stator winding
3.1.3.3	Check condition of rotor winding
3.2	Electrical Testing
3.2.1	Stator Testing

3.2.1.1	Measure winding insulation resistance & calculate PI
3.2.1.2	Measure temperature sensor insulation resistance (RTDs)
3.2.1.3	Measure winding resistances
3.2.1.4	Measure resistances of temperature sensors (RTDs)
3.2.2	Rotor Testing
3.2.2.1	Measure insulation resistance
3.2.2.2	Measure winding resistance
3.2.3	Bearing Electrical Checks
3.2.3.1	Check bearing insulation resistance
3.2.3.2	Check bearing RTD resistance (functionality)
3.2.4	Exciter Testing
3.2.4.1	Measure winding insulation resistance
3.2.4.2	Check blocking characteristics of diodes
3.2.4.3	Check RC circuit blocks and overvoltage protection
3.2.4.4	Check function of diode wheel
3.2.5	Miscellaneous Electrical Checks
3.2.5.1	Check air cooler RTD resistance (functionality)
3.2.5.2	Check condition and performance of grounding/earthing brushes
3.2.5.3	Check performance of generator space heaters
3.3	Mechanical Inspections
3.3.1	Dimensionally inspect the bearings
3.3.2	Perform NDE on the bearings
4	Assemble the Generator
4.1	Assemble & Install the Bearings
5	Demobilization
5.1	Inventory and Ship Tools
5.2	Site Clean-up
5.3	Travel out

Work Scope 2: Siemens Generator Major Inspection

1	SGEN Major Inspection
1.1	Mobilize site
1.1.1	Travel in
1.1.2	Site Specific Safety Training
1.1.3	Set up tooling
1.2	Disassemble the Generator
1.2.1	Remove the coolers
1.2.2	Remove the Exciter & Bearings
1.2.3	Remove the Shrouds & Bearing Pedestals
1.3	Inspections and Testing
1.3.1	Visual Inspections
1.3.1.1	Stator Inspections
1.3.1.1.1	Inspect slot wedges and end wedge locking elements
1.3.1.1.2	Inspect end winding spacers
1.3.1.1.3	Inspect circuit ring and supports
1.3.1.1.4	Inspect end winding supports and bracing
1.3.1.1.5	Inspect the end winding insulation
1.3.1.1.6	Inspect the surface sealing
1.3.1.1.7	Inspect the winding end leads
1.3.1.1.8	Inspect the bolted connections of the main leads
1.3.1.1.9	Inspect the cable insulation for cracks, wear, deterioration
1.3.1.1.10	Inspect the RTD connections
1.3.1.1.11	Inspect the core and air guide sealing
1.3.1.2	Rotor Inspections
1.3.1.2.1	Inspect the bearing journals
1.3.1.2.2	Inspect the sealing surfaces
1.3.1.2.3	Inspect the coupling face
1.3.1.2.4	Inspect the fans
1.3.1.2.5	Conduct NDE on the fan blades
1.3.1.2.6	Inspect the balance weights
1.3.1.2.7	Inspect the end windings and connections (borescope)
1.3.1.3	Exciter Inspection
1.3.1.3.1	Check condition of diode wheel
1.3.1.3.2	Check condition of stator winding
1.3.1.3.3	Check condition of rotor winding
1.3.2	Electrical Testing
1.3.2.1	Stator Testing

1.3.2.1.1	Measure winding insulation resistance & calculate PI
1.3.2.1.2	Measure temperature sensor insulation resistance (RTDs)
1.3.2.1.3	Measure winding resistances
1.3.2.1.4	Measure resistances of temperature sensors (RTDs)
1.3.2.1.5	Conduct DC Step-voltage test
1.3.2.1.6	Conduct EL CID testing
1.3.2.2	Rotor Testing
1.3.2.2.1	Measure insulation resistance
1.3.2.2.2	Measure winding resistance
1.3.2.3	Bearing Electrical Checks
1.3.2.3.1	Check bearing insulation resistance
1.3.2.3.2	Check bearing RTD resistance (functionality)
1.3.2.4	Exciter Testing
1.3.2.4.1	Measure winding insulation resistance
1.3.2.4.2	Check blocking characteristics of diodes
1.3.2.4.3	Check RC circuit blocks and overvoltage protection
1.3.2.4.4	Check function of diode wheel
1.3.2.5	Miscellaneous Electrical Checks
1.3.2.5.1	Check air cooler RTD resistance (functionality)
1.3.2.5.2	Check condition and performance of grounding/earthing brushes
1.3.2.5.3	Check performance of generator space heaters
1.4	Assemble Generator
1.4.1	Install the Shrouds & Bearing Pedestals
1.4.2	Assemble & Install the Bearings & Exciter
1.4.	Install the coolers
1.5	Demobilization
1.5.1	Inventory & Prep Tools for Shipment
1.5.2	Clean up Siemens work areas
1.5.3	Ship tooling
1.5.4	Travel out

Attachment 4

Exhibit A Addendum 7 Flex Firing

At Buyer's option, the Combustion Turbine may be operated at an increased turbine inlet temperature, resulting in operation greater than base load or "Flex Fired". Such Flex Fired operation shall not exceed Seller's approved turbine inlet temperature increase above the base load turbine inlet temperature and shall be limited to 5,000 EBH per Hot Gas Path Interval. Flex firing shall increase the plant output above the normal output of the facility by temporarily increasing the firing temperature. This increase in firing temperature shall result in additional wear and tear on the Program Parts and an additional Fee shall be added, as specified in Exhibit E.

Prior to Buyer exercising its option for Flex Fired operation, Seller shall perform a combustion system test in coordination with Buyer. The combustion system test shall require Flex Fired operation of the Combustion Turbine for at least 1 hour. Following conclusion of the test, Seller shall notify Buyer when Buyer may begin to exercise its option for Flex Fired operation.

Attachment 5

Exhibit B (Rev. 1) Combustion Turbine Program Parts List

Program Parts Table 33.2k EBH/1500 ES Basis Interval

Program Parts
Combustor Baskets
Fuel Nozzles
Transitions
Support Housings
Transition Seals
Ring Segments – Row 1
Ring Segments – Row 2
Ring Segments – Row 3
Ring Segments – Row 4
Row 1 Blade
Row 1 Vane
Row 2 Blade
Row 2 Vane
Row 3 Blade
Row 3 Vane
Row 4 Blade
Row 4 Vane
Compressor Blades
Compressor Diaphragms
Diaphragm Seals

Attachment 6

Exhibit C (Rev. 1) Projected Scheduled Outage Plan

The projected Scheduled Outage plan below is based on the current revision of the Service Bulletins as provided in Exhibit D. Combustion Turbine Scheduled Outages will be performed as required by the Contact, subject to the application and modification process set forth in Exhibit A, Addendum 1.

Combustion Turbine		CT Generator Inspections	Rotor Exchange
Period	Scheduled Outage Type		
1	CI		
2	HGP*		
3		Medium	
4	Major	Major	Rotor Exchange #1
5			
6	HGP	Medium	
7			
8	Major	Major	Rotor Exchange #2
9			
10	HGP	Medium	
11			
12	Major	Major	

* Installation of Combustion Turbine Interval Extension Program Parts at Period 2 HGP

Steam Turbine Scheduled Outages will be performed in conjunction with the corresponding Combustion Turbine Scheduled Outage as set forth below; should a change to the Service Bulletin adversely affect the Buyer, the Parties will negotiate changes to the Contract in good faith.

Steam Turbine		ST Generator Inspections
Period	Scheduled Outage Type	
1	ASI	
2	LO	
3	ASI	Medium
4	MO	Major
5	ASI	
6	LO	Medium
7	ASI	
8	MO	Major
9	ASI	
10	LO	Medium
11	ASI	
12	MO	Major

Exhibit C (Rev. 1) (continued)

Outage Definitions:

CI – Combustor Scheduled Outage

HGP – Hot Gas Path Scheduled Outage

Major – Major Scheduled Outage

ASI – Steam Turbine Annual Safety Inspection

LO – Steam Turbine Limited Overhaul

MO – Steam Turbine Major Overhaul

Attachment 7

Exhibit D (continued) Addendum 1 (Rev. 1)

This Addendum 1 to Exhibit D provides recommendations for gas turbine inspection intervals for certain SGT6-5000F and 501F units. The inspection intervals provided herein are particular to Buyer's Combustion Turbine and are to be used in lieu of the minimum interval requirements outlined in Exhibit SB4-11-0018-GT-EN. Calculation methodology and inspection scope recommendations are as provided in such SB SB4-11-0018-GT-EN.

Table 1. Inspection Interval Summary (to be applied in place of the inspection intervals provided in SB4-11-0018-GT-EN).

Inspection Type	Interval
Hot Gas Path (includes the Combustor Inspection workscope)	33,200 EBH or 1500 ES
Major	66,400 EBH or 3000 ES

Notes

1.) EBH and ES are to be calculated using the service counter calculation parameters/counters/methods provided per in SB4-11-0018-GT-EN.

Attachment 8

Exhibit E (Rev. 1) Payment Schedule

Pricing Schedule:

1. Program Initialization Fee:

The Parties agree that Seller has invoiced Buyer and Buyer has paid to Seller a Program Initialization Fee in the amount of one million five hundred thousand Dollars (U.S. \$1,500,000.00).

2. Fixed Annual Fee:

Seller shall invoice Buyer and Buyer shall pay to Seller a "Fixed Annual Fee" of one hundred thousand Dollars (U.S. \$100,000.00) to be paid in advance of each Calendar Year. Beginning on March 1, 2018, the Fixed Annual Fee shall increase to one hundred thirteen thousand eight hundred forty Dollars (U.S. \$113,840.00) adjusted per the Escalation Factor.

3. Variable Fee:

Seller shall invoice Buyer and Buyer shall pay to Seller a Variable Fee of five hundred nineteen Dollars and twenty-nine cents (US \$519.29/EBH) per Equivalent Base Hour or eleven-thousand six-hundred ninety-six Dollars and thirty-two cents (US \$11,696.32/ES) per Equivalent Start.

The "Variable Fee" is calculated and invoiced based upon the Equivalent Base Hours (EBH) or Equivalent Starts (ES) accumulated by the Combustion Turbine. Commencing as of First Fire with respect to the Combustion Turbine, at the end of each calendar quarter thereafter for such Combustion Turbine (or at the time of a Scheduled Outage), Seller shall invoice Buyer for the Variable Fee (per above), based on the actual operation of such Combustion Turbine during such calendar quarter adjusted per the Escalation Factor (or during such calendar quarter up to the commencement of the next Scheduled Outage).

4. Flex Firing Variable Fee

In addition to the Variable Fee, should the Combustion Turbine operate any hour or portion thereof in Flex Firing operation, then an additional "Flex Fire Variable Fee" adder will be applied pro rata for each portion of the applicable hour for all applicable hours during a quarter. Such Flex Fire Variable Fee adder shall be one hundred and ten Dollars (\$110.00/EBH) as adjusted per the Escalation Factor. The Flex Fire Variable Fee applicable to the Combustion Turbine will be calculated each calendar quarter invoiced with the quarterly payment of the Variable Fees for such quarter.

5. Energy Management Consultant Services Fee

Seller shall invoice Buyer and Buyer shall pay to Seller a "Energy Management Consultant Services Fee" of seventy-thousand Dollars (U.S. \$70,000.00) per Calendar Year adjusted per the Escalation Factor to be paid quarterly for the next three (3) Calendar Years beginning with Calendar Year 2018.

True Up of Variable Fees:

a. If the Hot Gas Path or Major Scheduled Outage is scheduled based on ES per Exhibit C, at the commencement of each Hot Gas Path or Major Scheduled Outage, Seller, notwithstanding other amounts invoiced under this Contract, will invoice Buyer from the Period 2 Hot Gas Path Scheduled Outage or from the prior Hot Gas Path or Major inspection, each as applicable, to the commencement of the Hot Gas Path or Major Scheduled Outage, the ES Variable Fee multiplied by the greater of the total ES accumulated or 1,500 ES, and credit to Buyer any Variable Fees that have been paid by Buyer since the last Hot Gas Path Scheduled Outage or Major Scheduled Outage.

b. If the Hot Gas Path or Major Scheduled Outage is scheduled based on EBH per Exhibit C, at the commencement of each Hot Gas Path or Major Scheduled Outage, Seller, notwithstanding other amounts invoiced under this Contract, will invoice Buyer from the Period 2 Hot Gas Path Scheduled Outage or from the prior Hot Gas Path or Major Inspection, each as applicable, to the commencement of the Hot Gas Path or Major Scheduled Outage, the EBH Variable Fee multiplied by the greater of the total EBH accumulated or 33,200 EBH, and credit to Buyer any Variable Fees that have been paid by Buyer since the last Hot Gas Path Scheduled Outage or Major Scheduled Outage.

Variable Fee Invoicing

1. Variable Fee Invoicing Example

For invoicing purposes, the mode of operation is based on the most recent completed calendar quarter. A ratio is calculated by taking the total EBH accumulated over the previous calendar quarter divided by the total ES accumulated over the same time period. If the EBH/ES ratio exceeds 22.13, Seller will invoice based on EBH. If the EBH/ES ratio is equal to or below 22.13, Seller will invoice based on ES.

The Variable Fee will be calculated in accordance with the following:

Where:

X = Ratio of accumulated EBH to accumulated ES

Y = U.S. \$519.29/EBH

Z = U.S. \$11,696.32/ES

Calculation of the Variable Fee:

When X is > 22.13 , then the Variable Fee shall equal the amount of EBH accrued in that calendar quarter multiplied by Y.

When X is ≤ 22.13 , then the Variable Fee shall equal the amount of ES accrued in that calendar quarter multiplied by Z.

Example calculation of the Variable Fee for different values of X:

(i)

$$X = EBH/ES = 32$$

EBH accrued in that calendar quarter = 1,800

ES accrued in that calendar quarter = 56

$$\text{Variable Fee} = (1,800) * (\$519.29) = \$934,722$$

(ii)

$$X = EBH/ES = 20$$

EBH accrued in that calendar quarter = 1,400

ES accrued in that calendar quarter = 70

$$\text{Variable Fee} = (70) * (\$11,696.32) = \$818,742.40$$

Attachment 9

Exhibit G (Rev. 1) Cancellation Schedule

The cancellation amount owed by Buyer to Seller, pursuant to Section 12.6 of the Contract, shall be equal to the following:

From the Effective Date to the commencement of the Period 4 Major Inspection	14% of the remaining Fees that Buyer would have owed to Seller if the third Major had been performed on the Combustion Turbine based on the predominant mode of operation
From the completion of the Period 4 Major Inspection to the end of the term of the Contract	18% of the remaining Fees that Buyer would have owed to Seller if the third Major had been performed on the Combustion Turbine based on the predominant mode of operation

Such cancellation amount will be calculated from the date of termination of the Contract.

Attachment 10
Exhibit H
Energy Management Consultant Services

Asset Dispatch in Operations - Engineering Services

Up to two workshops per annum covering:

- ISO design change or business updates impacting dispatch of the asset due to upcoming changes
- Business review based on public data and provided private data
- Questions/answers and discussions towards asset performance based on publicly available data and asset private data

The following services are offered either inside or outside workshop to respect any time critical business needs:

Resource Model Review, Setup and Update assistance services

- Asset physical model review/assistance for various products of the ISO Market
- Plant information representation to ISO or Dispatch authority (resource data templates)
- Asset enhancement analysis (e.g., Hydrogen, Storage) for dispatch improvement

Commercial Model (bid data) Review, Setup and Update assistance services

- Bid data setup for various products of the ISO in association with resource physical
- Models and any enhancement under consideration