



12745 N. Thornton Road
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Agenda

Date: October 30, 2014

Subject: November 3, 2014 Lodi Energy Center Project Participant Committee Meeting

Location: 12745 N. Thornton Road, Lodi, CA or via teleconference

Time: 10:00 A.M.

***** In compliance with the Brown Act, you may participate in person at the meeting location or via teleconference at one of the locations listed below. In either case, please: (1) post this notice at a publicly accessible location at the participation location at least 72-hours before the call begins, and (2) have a speaker phone available for any member of the public who may wish to attend at your location.**

NCPA 12745 N. Thornton Road Lodi, CA	NCPA 651 Commerce Drive Roseville, CA	CITY OF HEALDSBURG 401 Grove Street Healdsburg, CA
BAY AREA RAPID TRANSIT 300 Lakeside Drive, 16th Floor Oakland, CA	CITY OF GRIDLEY 685 Kentucky Street Gridley, CA	CITY OF LOMPOC 100 Civic Center Plaza Lompoc, CA
CITY OF BIGGS 465 "C" Street Biggs, CA	PLUMAS-SIERRA RURAL ELECTRIC COOP 73233 Highway 70 Portola, CA	CITY OF UKIAH 411 W Clay Street Ukiah, CA
CALIFORNIA DEPARTMENT OF WATER RESOURCES 3310 El Camino Ave. Room LL46 Sacramento, CA		

The Lodi Energy Center Project Participant Committee may take action on any of the items listed on this Agenda regardless of whether the matter appears on the Consent Calendar or is described as an action item, a report, or an information item. If this Agenda is supplemented by staff reports, they are available to the public upon written request. Pursuant to California Government Code Section 54957.5, the following is the location at which the public can view Agendas and other public writings: NCPA, 651 Commerce Drive, Roseville, CA or www.ncpa.com

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

1. Call Meeting to Order and Roll Call

PUBLIC FORUM

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

2. Meeting Minutes - Approval of the following PPC meeting minutes:

- October 13, 2014 regular meeting
- October 20, 2014 special meeting
- October 27, 2014 special meeting

MONTHLY REPORTS

3. Operational Report for October 2014 - (*Jeremy Lawson*)

4. Market Data Report for October 2014 – Verbal Report (*Bob Caracristi*)

5. Monthly Asset Report – (*Michael DeBortoli*)

CONSENT CALENDAR

All items on the Consent Calendar are considered routine and will be approved without discussion by a single roll call vote. Any Project Participant 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 Participants will be polled to determine if any Participant wishes to abstain from one or more items on the Consent Calendar.

6. GHG Reports (excerpted from monthly ARB) - Accept by all Participants

7. **Reliability Optimization, Inc.** – Staff seeking approval of a five year Multi-Task General Services Agreement with Reliability Optimization, Inc. in an amount not to exceed \$700,000 for predictive maintenance services as needed at the LEC and CT facilities. All purchase orders issued pursuant to the agreement will be charged against existing and future approved Annual Operating Budgets.

8. **Siemens Energy, Inc.** – Staff seeking approval of a three year Multi-Task General Services Agreement with Siemens Energy, Inc. in an amount not to exceed \$600,000 for control system maintenance and support as needed at the LEC and Geothermal facilities. All purchase orders issued pursuant to the agreement will be charged against existing and future approved Annual Operating Budgets.

9. **H3 Construction, Inc.** – Staff seeking approval of a five year Multi-Task General Services Agreement with H3 Construction, Inc. in an amount not to exceed \$500,000 for miscellaneous mechanical maintenance services as needed at any of the Generation Services facilities. All purchase orders issued pursuant to the agreement will be charged against existing and future approved Annual Operating Budgets.

10. Trimark Associates, Inc. – Staff seeking approval of a five year Multi-Task General Services Agreement with Trimark Associates, Inc. in an amount not to exceed \$500,000 for metering services as needed at any of the Generation Services facilities. All purchase orders issued pursuant to the agreement will be charged against existing and future approved Annual Operating Budgets.

Consent Items pulled for discussion: _____

BUSINESS ACTION ITEMS

11. Element Markets Efforts to Market ERCs – Staff to provide update regarding efforts for sale of ERCs; seeking approval of a second amendment to the existing agreement with Element Markets to extend the agreement expiration date to December 31, 2015 and approval authority to reduce the flooring for marketing of NOx credits to \$35,000 per ton and market SOx credits at a minimum of \$15,000 per ton. (*Michael DeBortoli*)

INFORMATIONAL ITEMS

12. CAISO Transmission Line Project – Staff to present verbal update regarding the status of the CAISO Transmission Line Project (*Michael DeBortoli*)

13. Sutter Home Winery Concerns – Staff to discuss issue raised by Sutter Home Winery (*Michael DeBortoli*)

14. Request for Report regarding MID's Exports and Cost Impacts of the Transmission Adjustment Factor to Participants - Staff to provide information regarding this request (*Ken Speer*)

15. Other New Business

ADJOURNMENT

Next Regular Meeting: December 8, 2014

**Lodi Energy Center
Project Participant Committee Meeting
October 13, 2014 - MEETING MINUTES**

Location: Lodi Energy Center
12745 N. Thornton Rd, Lodi CA 95242
and by teleconference
10:00 A.M.

1. Call Meeting to Order and Roll Call

The PPC meeting was called to order at 10:03 a.m. by Chairman Michael Werner. He asked that roll of the Project Participants be called as listed below.

Participant	Attendance	Particulars / GES
Azusa - Morrow	Present	2.7857%
BART - Lloyd	Present	6.6000%
Biggs - Sorenson	Present	0.2679%
CDWR - Werner	Present	33.5000%
Gridley - Stiles	Present	1.9643%
Healdsburg - Crowley	Absent	1.6428%
Lodi - Cadek	Present	9.5000%
Lompoc - Hostler	Present	2.0357%
MID - Caballero	Present	10.7143%
Plumas-Sierra - Brozo	Absent	0.7857%
PWRPA - Palmerton	Present	2.6679%
SVP - Hance	Absent	25.7500%
Ukiah - Grandi	Absent	1.7857%
Summary		
Present	9	70.0358%
Absent	4	29.9642%
Quorum by #:	Yes	
Quorum by GES:	Yes	
Meeting Date:	10/13/2014	

Public Forum

Chairman Werner asked if any members of the public were present in Lodi or at any of the other noticed meeting locations that would like to address the PPC on any agenda items. No members of the public were present.

2. Meeting Minutes

The draft minutes of the regular meeting held on September 8, 2014 and the special meetings held on September 4, September 15, September 22, September 29, and October 6, 2014 were considered. The LEC PPC considered the following motion:

Date: 10/13/2014

Motion: The PPC approves the minutes of the following meetings: September 4, 2014 special meeting; September 8, 2014 regular meeting; September 15, 2014 special meeting; September 22, 2014 special meeting; September 29, 2014 special meeting; and October 6, 2014 special meeting; including any edits discussed at today's meeting.

Moved by: **Gridley**

Seconded by: **BART**

Discussion: There was no further discussion.

Vote Summary on Motion		
Participant	Vote	Particulars / GES
Azusa	Yes	2.7857%
BART	Yes	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Yes	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Yes	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Yes	2.6679%
Silicon Valley Power	Absent	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	9	70.0358%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	4	29.9642%
Result:	Motion passed.	

MONTHLY REPORTS

3. Operational Reports for September 2014

Jeremy Lawson presented the monthly written Operational Report including Safety, Notice of Violations, Outage Summaries, Planned Outages, and Generating Unit Statistics for September. There were no OSHA Recordable accidents, no Permit violations, and no NERC/WECC violations. The report covered a forced outage which occurred on September 1-2 during start-up when a high sump pump water level initiated a trip on boiler feed pumps. Operators drained the sump pump and returned the unit to service (13.3 hours). A second outage was noted as a result of the problem with the High Pressure Steam Turbine Control Valve and Emergency Stop Valve which caused it not to open.

Rafael Santana talked about the upcoming planned outage in November. The major areas of work to be done are repair of the control valve, CI inspection, HRSG minor inspection, and replacement of the Rotor Air Cooler. A new bulletin is out regarding potential issues about the last stage blade so measurements will be taken. Mike DeBortoli said that IF the measurements show out of tolerance, the CI would turn into a hot gas path service. He also noted that if it proves to be out of spec, the repair is with program parts so the cost would be on Siemens. It is also now confirmed that Siemens is going to bear the cost for removal and installation of the RAC. Based on the last update regarding timing for shipping of the RAC, the date continued to slip so NCPA has been sending a person each week to personally visit the Peerless facility in Texas where the RAC is being assembled. That physical presence has really helped to get the RAC delivery date back on schedule. It is now estimated that the RAC will be ready to ship out on October 24.

The report reflected monthly production of 178,809 net MWH, 684 service hours, and equivalent operating availability of 96.99%. The report set forth the Capacity Factor @ 280MW Pmax of 88.69% and @ 302MW Pmax of 82.23%. During the month the plant had 3 hot starts, zero warm starts, and zero cold starts. The plant is doing very well on continuous operation.

4. Market Data Report for September 2014

Bob Caracristi discussed the operating and financial settlement results for the month.

5. Monthly Asset Report

Mike DeBortoli presented the monthly asset report/budget review for August. There were no questions about the report.

Consent Calendar

The consent calendar was considered. Chairman Werner asked if any Participant wished to remove any item listed on the Consent Calendar for separate discussion. Hearing none, he then asked if any Participant wished to abstain from one or more items on the Consent Calendar. There were no abstentions. The LEC PPC considered the following motion:

Date: 10/13/2014

Motion: The PPC approves the Consent Calendar consisting of agenda items no. 6. Treasurer's Report for September 2014; 7. Financial Report for September 2014; 8. GHG Reports; 9. Control Components, Inc. Multi-Task General Services Agreement and Agreement for Purchase of Equipment, Materials, and Supplies; and 10. Environex, Inc. Multi-Task General Services

Agreement.

Moved by: Azusa
Seconded by: Lompoc

Discussion: There was no further discussion.

Vote Summary on Motion		
Participant	Vote	Particulars / GES
Azusa	Yes	2.7857%
BART	Yes	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Yes	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Yes	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Yes	2.6679%
Silicon Valley Power	Absent	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	9	70.0358%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	4	29.9642%
Result:	Motion passed.	

BUSINESS ACTION ITEMS

11. LEC Operational Insurance Coverage

Donna Stevener presented a PowerPoint explaining the Operating Insurance Property Program for LEC. The upcoming renewal date is November 20 and the new policy term will run through November 20, 2015. The LEC PPC considered the following motion:

Date: 10/13/2014

Motion: The PPC determines to pass on business interruption insurance and terrorism coverages and maintain annual renewal of the replacement cost operational property and liability insurance program for LEC for policy period November 20, 2014 through November 20, 2015 at the same insurance limits, at a premium cost of \$560,968 for property coverage and \$93,183 for general liability, as discussed at today's meeting.

Moved by: MID
Seconded by: Lodi

Discussion: There was no further discussion.

Vote Summary on Motion		
Participant	Vote	Particulars / GES
Azusa	Yes	2.7857%
BART	Yes	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Yes	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Yes	2.6679%
Silicon Valley Power	Absent	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	8	68.0715%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	5	31.9285%
Result:	Motion passed.	

12. LEC PPC Meeting Dates for 2015

Staff presented proposed meeting dates for 2015 based on meetings to be generally held on the second Monday of each month. The PPC considered the following motion.

Date: 10/13/2014

Motion: The PPC approves the schedule of regular LEC PPC meeting dates for calendar year 2015 on the second Monday of each month, as discussed at today's meeting.

Moved by: DWR
Seconded by: Gridley

Discussion: There was no further discussion.

Vote Summary on Motion		
Participant	Vote	Particulars / GES
Azusa	Yes	2.7857%
BART	Yes	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Yes	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Yes	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Yes	2.6679%
Silicon Valley Power	Absent	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	9	70.0358%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	4	29.9642%
Result:	Motion passed.	

INFORMATIONAL ITEMS

13. Planned Outage for November 1

This item was covered during the Operational Report.

14. PG&E's Compressed Air Storage Project

Mike DeBortoli gave an informational update regarding PG&E's planned compressed air energy storage injection well system project to be located near Lodi. He presented a written Technical Summary Report prepared for NCPA regarding the project prepared by Michael W. Bennett, a Professional Geologist and Principal Hydrogeologist for AECOM Technical Services, Inc. The purpose of the report was to determine whether there are any reasons to be concerned about adverse impacts to LEC, and if so, to actively participate in the Public Comment process for the project. Mike explained that the report indicates that the way PG&E is injecting into the shale levels does not result in it exiting the boundaries of the King Island reservoir; therefore no significant adverse impacts to NCPA's existing injection well system were found. The report outlined some limited potential impacts and made recommendations. NCPA will continue to monitor the permitting requests, request to receive drilling and testing data for review, and monitor our pressure reading data. Ken Speer said the report's findings are consistent with the information provided by the PG&E Study consultant.

15. Water Storage Report

Mike DeBortoli presented a PowerPoint presentation and the LEC Title 22 Water Storage Study prepared by Worley Parsons to identify potential locations within plant boundaries and potential offsite locations for storage options together with a cost estimate for each option. The report was based on various assumptions including information from the City about the maximum number of outage hours. The report looked at finding an option for a 24 hour raw water capacity system. The committee reviewed and discussed the option locations as depicted on the aerial map. One pro to off-site storage was more storage availability but cons noted were the need for lease of property, right-of-ways for piping, and security. A large negative to having additional storage on site is the reduction of lay down area. Other considerations noted when using ponds for storage include if animals or other creatures come in to the area habitat concerns could arise and other environmental issues with the water being chemically treated. The pond option was not recommended by the report. George Morrow commented that we should consider talking with the City about options for acquisition of additional property for storage. Ken Speer noted the City has increased its reliability and not that the lease payments paid flow to the General Fund, the City has a big incentive to keep the water flowing. It is staff's recommendation to not pursue additional raw water storage at this time because the low risks are acceptable. Mike Werner asked, however, if additional storage was desired, which option appeared to staff to be the best scenario. Off-site option F northeast of the plant was discussed with its short pipe runs. George Morrow said it is good that staff got out ahead of this issue and that we may want to talk to the City about off-site options and also to the water treatment people about options for working with them.

16. Other New Business. None

Adjourn to Closed Session

17. Threat to Public Services or Facilities. A Closed session discussion was had pursuant to Government Code section 54957.

The PPC returned to Open Session at 11:55 a.m. Chairman Werner said there was no reportable action taken during Closed Session.

Adjournment

The next regular meeting of the PPC is scheduled for Monday, November 3, 2014. The meeting was adjourned at 12:06 p.m.

**Lodi Energy Center
Project Participant Committee SPECIAL Meeting
October 20, 2014 - MEETING MINUTES**

Location: Lodi Energy Center
12745 N. Thornton Rd, Lodi CA 95242
and by teleconference
10:00 A.M.

1. Call Meeting to Order and Roll Call

The PPC special meeting was called to order at 10:00 p.m. by Chairman Michael Werner. He asked that roll be called as listed below.

PPC Meeting Attendance Summary		
Participant	Attendance	Particulars / GES
Azusa - Morrow	Present	2.7857%
BART - Lloyd	Present	6.6000%
Biggs - Sorenson	Present	0.2679%
CDWR - Werner	Present	33.5000%
Gridley - Stiles	Present	1.9643%
Healdsburg - Crowley	Absent	1.6428%
Lodi - Cadek	Present	9.5000%
Lompoc - Hostler	Absent	2.0357%
MID - Caballero	Present	10.7143%
Plumas-Sierra - Brozo	Absent	0.7857%
PWRPA - Palmerton	Present	2.6679%
SVP - Hance	Present	25.7500%
Ukiah - Grandi	Absent	1.7857%
Summary		
Present	9	93.7501%
Absent	4	6.2499%
Quorum by #:	Yes	
Quorum by GES:	Yes	
Meeting Date:	10/20/14	

Public Forum

Chairman Werner asked if any members of the public were present in Lodi or at any of the other noticed meeting locations who would like to address the PPC on any agenda items. No members of the public were present.

2. Update Regarding Self-Scheduling and Operations

Bob Caracristi discussed the operating and financial settlement results as updated for the month.

Martin Caballero inquired about the progress with the RAC. Ken Speer advised the RAC is on schedule to ship on October 24.

Adjournment.

Chairman Werner adjourned the special meeting at 10:08 a.m.

DRAFT

**Lodi Energy Center
Project Participant Committee SPECIAL Meeting
October 27, 2014 - MEETING MINUTES**

Location: Lodi Energy Center
12745 N. Thornton Rd, Lodi CA 95242
and by teleconference
10:00 A.M.

1. Call Meeting to Order and Roll Call

The PPC special meeting was called to order at 10:03 p.m. by Chairman Michael Werner. He asked that roll be called as listed below.

PPC Meeting Attendance Summary		
Participant	Attendance	Particulars / GES
Azusa - Morrow	Present	2.7857%
BART - Lloyd	Present	6.6000%
Biggs - Sorenson	Present	0.2679%
CDWR - Werner	Present	33.5000%
Gridley - Stiles	Present	1.9643%
Healdsburg - Crowley	Absent	1.6428%
Lodi - Cadek	Absent	9.5000%
Lompoc - Hostler	Absent	2.0357%
MID - Caballero	Present	10.7143%
Plumas-Sierra - Brozo	Absent	0.7857%
PWRPA - Palmerton	Absent	2.6679%
SVP - Hance	Present	25.7500%
Ukiah - Grandi	Absent	1.7857%
Summary		
Present	7	81.5822%
Absent	6	18.4178%
Quorum by #:	Yes	
Quorum by GES:	Yes	
Meeting Date:	10/27/2014	

Public Forum

Chairman Werner asked if any members of the public were present in Lodi or at any of the other noticed meeting locations who would like to address the PPC on any agenda items. No members of the public were present.

2. Update Regarding Self-Scheduling and Operations

Bob Caracristi discussed the operating and financial settlement results as updated for the month. Ken Goeke discussed the data he compiles and provides on a regular basis. It was

agreed that after the November outage, the Committee will consider scheduling options for LEC going forward.

Ken Speer advised that the RAC shipped on October 24 and is now waiting to be offloaded at LEC.

Adjournment.

Chairman Werner adjourned the special meeting at 10:15 a.m.

DRAFT



12745 N. Thornton Road
Lodi, CA 95242

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Lodi Energy Center Project Participant Committee Operational Report

Date: 11/3/2014
To: Lodi Energy Center Project Participant Committee

Safety

- OSHA Recordable: 0 Accidents

Notice of Violations

- Permits: 0 Violations
- NERC/WECC: 0 Violations

Outage Summaries:

- **Gas Compressor "A" Failure (10/15/2014)** – The Gas Compressor "A" Spillback valve failed open causing inadequate gas pressure to the Combustion Turbine. Operators swapped to Gas Compressor "B" and attained adequate pressure. Approximately 20MW were curtailed for 30 minutes during this episode.

Planned Outage Summaries:

- 2014, November 1st @0001 – November 16th 2400 for RAC and Steam Turbine CV Repair
- 2015, May 1st @ 0001 – May 9th @ 2359 for a Combustion Inspection

Generating Unit Statistics:

LEC

Report**Date:**

Start Date 10/1/2014

End Date 10/31/2014

1. Monthly Production 181,265 MWH
2. Productivity Factor
- a. Service Hours 682 Hours
- b. Service Factor 91.82 %
- c. Capacity Factor @ 280MW Pmax 87.13 %
- d. Capacity Factor @ 302MW Pmax 80.78 %
3. Equivalent Operating Availability (EOA) 100.00 %
4. Forced Outage Rate (FOR)
- a. Combustion Turbine Generator 0.00 %
- b. Steam Turbine Generator 0.00 %
5. Heat Rate Deviation (HRD)
- a. Fuel Cost (Not Current Market Price) 4.00 \$/mmBTU

MW Range		Average HR	PMOA HR	Deviation	Production	Cost
		BTU/kW-Hr	BTU/kW-Hr	%	MWH	\$
Seg. 1	296 - 302	6,850	6850	0.00%	0	\$0
Seg. 2	284 - 296	6,934	6870	0.93%	21,994	\$5,603
Seg. 3	275 - 284	6,938	6971	-0.47%	83,039	-\$10,840
Seg. 4	250 - 275	6,972	7081	-1.54%	49,131	-\$21,397
Seg. 5	225 - 250	7,029	7130	-1.42%	13,989	-\$5,656
Seg. 6	200 - 225	7,117	7315	-2.71%	7,218	-\$5,720
Seg. 7	175 - 225	7,270	7711	-5.72%	5,735	-\$10,125
Seg. 8	165 - 175	7,445	7856	-5.23%	70	-\$115
					181,176	-\$48,250

6. AGC Control Deviation

MW Range		High Dev	Low Dev	Absolute Dev	Cost
		MWH	MWH	MWH	\$
Seg. 1	296 - 302	0	0	0	\$0
Seg. 2	284 - 296	45	-60	104	\$2,896
Seg. 3	275 - 284	117	-367	483	\$13,408
Seg. 4	250 - 275	146	-84	230	\$6,418
Seg. 5	225 - 250	55	-28	83	\$2,340
Seg. 6	200 - 225	29	-16	45	\$1,275
Seg. 7	175 - 225	14	-8	22	\$641
Seg. 8	165 - 175	0	0	1	\$16
		406	-562	968	\$26,994

7. Starting Reliability

Start Type	Hot Starts	Warm Starts	Cold Starts
Number of Starts	0	0	0
Start Time Benchmark (Minutes)	85	160	235
Start Time Actual (Average Minute)	0.0	160.0	235.0
Start Time Deviation (%)	-100.0%	0.0%	0.0%
Start Fuel Benchmark PMOA (mmBTU)	1,967	5,200	5,430
Start Fuel Actual (Average mmBTU)	0	5,200	5,430
Fuel Deviation	-100.0%	0.0%	0.0%
Costs of Fuel Deviations (\$)	-\$7,868	\$0	\$0

Definitions:

1. Monthly Production = Plant Net MWH's
2. Capacity Factor
 - a. Service Hours = In Production or in Service State
 - b. Service Factor = $SH / PH \times 100\%$
 - c. Capacity Factor = $Production / 302MW \times PH$
 - d. Capacity Factor = $Production / 280MW \times PH$
3. Monthly Equivalent Availability Factor (EAF) = $(AH - EPDH - EFDH) / PH \times 100\%$
4. Forced Outage Rate = $(FOH / (FOH + SH)) \times 100\%$
5. Heat Rate Deviation (HRD)
 - a. Fuel Cost = Cost of Fuel in \$/mmBTU
 - b. Average Heat Rate = The Average Heat Rate for the given Range
 - c. Heat Rate Deviation = $(Heat\ Rate\ Average - Heat\ Rate\ Expected) / Heat\ Rate\ Expected \times 100\%$
 - d. Production = The Sum of Production for the given Range
 - e. Costs of Heat Rate Deviations = $(Average\ Heat\ Rate - Expected\ Heat\ Rate) \times Production \times Cost\ of\ Fuel$
6. AGC Deviation-
 - a. MWH's = AGC Set Point Generation - LEC Actual Generation
 - b. Cost of Deviations = Fuel Cost x Heat Rate x Generation
7. Starting Reliability
 - a. Number of Starts = Start Count for Hot, Warm, and Cold
 - b. Start Time = Average Time from 0 Fuel Flow to Pmin
 - c. Start Fuel = Average Fuel Consumption to Pmin
 - d. Cost of Fuel Deviation = $(Actual\ Fuel\ Consumed - Expected\ Fuel) \times Cost\ of\ Fuel$

Lodi Energy Center
Monthly Budget Analysis

Means Actual or Means Actual or Estimated values
Means Forecast Means Forecasted values

	July	August	September	September (Estimate)	September (Diff)	September Estimate vs Actual (Diff %)	October	November	December	January	February	March	April	May	June	Year End Projection	FY2015 Budget	Percent Used	Comments
VOM	5,013,750	3,005,870	7,220,696	6,687,874	-532,822	-8%	8,737,334	2,129,264	5,259,061	4,597,377	4,229,479	5,112,966	4,357,127	1,912,532	1,844,412	53,881,166	51,681,547	104.3%	
Capacity Factor	57%	33%	89%	80%	-9%	-11%	100%	24%	51%	50%	51%	50%	52%	23%	22%	50%	52%		
Fuel Consumed (mmBTU, estimated)	841,281	498,061	1,261,077	1,118,571	-142,506	-13%	1,428,513	335,225	723,778	716,161	659,018	712,345	712,345	319,984	308,558	8,516,346	9,123,040	93.3%	
Avg Fuel Cost (\$/mmBTU)	5.23	5.05	4.96	4.37	-0.60	-14%	5.24	5.34	5.49	5.54	5.54	5.49	5.24	5.24	5.24	5.30	4.51		
Power Produced (MWhr, estimated)	118,475	69,005	178,828	161,600	-17,228	-11%	208,542	48,938	105,661	104,549	96,207	103,992	103,992	46,713	45,045	1,229,947	1,274,807	96.5%	
Avg Power Price (\$/MWhr)	51.48	48.21	45.28	45.07	-0.21	0%	47.00	49.00	50.00	46.00	46.00	46.00	39.00	36.00	36.00	45.00	43.88		
Operations / Variable / LSTA	33,177	143,351	75,472	988,134	912,662	92%	203,120	90,876	753,474	101,831	93,706	680,309	101,288	45,498	415,799	2,737,901	3,651,332	75.0%	
Fuel (estimated)	4,398,896	2,515,899	6,260,014	4,885,512	-1,374,502	-28%	7,485,407	1,790,103	3,973,540	3,967,530	3,650,959	3,910,775	3,732,689	1,676,716	1,616,845	44,979,374	41,167,130	109.3%	
AB32 GHG Offset (estimated)	532,550	314,769	809,067	808,000	-1,067	0%	1,042,710	244,690	528,305	522,745	481,035	519,960	519,960	233,565	225,225	5,974,581	6,374,035	93.7%	
CA ISO Charges (estimated)	49,127	31,851	76,143	6,228	-69,915	-1123%	6,098	3,595	3,742	5,271	3,779	1,921	3,190	2,251	2,342	189,310	489,050	38.7%	
Routine O&M (Fixed)	552,933	791,135	793,683	769,777	-23,906	-3%	769,777	839,777	1,263,527	819,724	827,724	827,724	769,777	1,193,527	767,777	8,964,998	8,935,879	100.3%	
Maintenance / Fixed	31,638	191,168	148,448	130,000	-18,448	-14%	130,000	200,000	200,000	179,947	187,947	187,947	130,000	130,000	128,000	1,845,095	1,765,358	104.5%	
Administration	106,163	96,717	188,734	104,068	-84,666	-81%	104,068	104,068	104,068	104,068	104,068	104,068	104,068	104,068	104,068	1,328,226	1,250,914	106.2%	
Mandatory Costs	27,186	10,162	7,623	18,333	10,710	58%	18,333	18,333	18,333	18,333	18,333	18,333	18,333	18,333	18,333	209,968	220,000	95.4%	
Inventory Stock	0	91,974	43,909	36,364	-7,545	-21%	36,364	36,364	36,364	36,364	36,364	36,364	36,364	36,364	36,364	463,159	400,000	115.8%	
Labor	286,415	284,596	288,276	364,797	76,521	21%	364,797	364,797	364,797	364,797	364,797	364,797	364,797	364,797	364,797	4,142,460	4,299,182	96.4%	
Insurance	0	0	13,885	12,745	-1,140	-9%	12,745	12,745	436,495	12,745	12,745	12,745	12,745	436,495	12,745	976,090	1,000,425	97.6%	
Power Management & Settlements	98,993	98,993	98,993	98,993	0	0%	98,993	98,993	98,993	98,993	98,993	98,993	98,993	98,993	98,993	1,187,916	1,187,916	100.0%	
Other Costs	2,538	17,525	3,815	4,477	662	15%	4,477	4,477	4,477	4,477	4,477	4,477	4,477	4,477	4,477	64,171	51,781	1	
Projects	150,000	155,088	150,000	603,751	453,751	75%	603,751	603,751	603,751	603,751	603,751	603,751	603,751	603,751	603,751	5,888,847	6,791,260	86.7%	
Maintenance Reserve	150,000	150,000	150,000	150,000	0	0%	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,800,000	1,800,000	100.0%	
Operations & Maintenance Projects	0	0	0	30,227	30,227	100%	30,227	30,227	30,227	30,227	30,227	30,227	30,227	30,227	30,227	272,043	332,500	81.8%	
Capital Projects	0	5,088	0	423,524	423,524	100%	423,524	423,524	423,524	423,524	423,524	423,524	423,524	423,524	423,524	3,816,804	4,658,760	81.9%	
A&G	104,462	121,410	131,651	187,422	55,771	30%	187,422	187,422	187,422	187,422	187,422	187,422	187,422	187,422	187,422	2,044,321	2,166,107	94.4%	
Administrative & General (Allocated)	86,419	101,714	108,222	149,294	41,072	28%	149,294	149,294	149,294	149,294	149,294	149,294	149,294	149,294	149,294	1,640,001	1,728,654	94.9%	
Generation Services Shared	18,043	19,696	23,429	38,128	14,699	39%	38,128	38,128	38,128	38,128	38,128	38,128	38,128	38,128	38,128	404,320	437,453	92.4%	
Total O&M Cost	5,821,145	4,073,503	8,296,030	8,248,824	-47,206	-1%	10,298,284	3,760,214	7,313,761	6,208,274	5,848,376	6,731,863	5,918,077	3,897,232	3,403,362	70,779,332	69,574,793	101.7%	
Debt Service	2,203,158	2,203,158	2,203,158	2,203,158	0	0%	2,203,158	2,203,158	2,203,158	2,203,158	2,203,158	2,203,158	2,203,158	2,203,158	2,203,157	26,437,895	26,437,890	100.0%	
Revenues	6,099,407	3,326,855	8,097,556	7,282,818	-814,738	-11%	9,801,474	2,397,962	5,283,050	4,809,254	4,425,522	4,783,632	4,055,688	1,681,668	1,621,620	56,383,688	55,938,024	100.8%	
ISO Energy Sales (estimated)	6,098,942	3,326,733	8,097,456	7,282,818	-814,638	-11%	9,801,474	2,397,962	5,283,050	4,809,254	4,425,522	4,783,632	4,055,688	1,681,668	1,621,620	56,383,001	55,938,024		
Other Income	465	122	100	0	-100	#DIV/0!	0	0	0	0	0	0	0	0	0	687	-		
Net	(\$1,924,896)	(\$2,949,806)	(\$2,401,632)	(\$3,169,164)	(\$767,532)	24%	(\$2,699,968)	(\$3,565,410)	(\$4,233,869)	(\$3,602,178)	(\$3,626,012)	(\$4,151,389)	(\$4,065,547)	(\$4,418,722)	(\$3,984,899)	(\$40,833,540)	(\$40,074,659)	Above budget by 1.89%	

2013 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report
for the Lodi Energy Center

IDENTIFIER	Actual													Compliance
	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total
Energy (MWh)	0	82,787	101,925	128,167	134,284	32,545	80,153	122,492	94,615	92,091	98,739	105,078	138,068	1,210,944
Gas Schedule (MMBtu)	0	593,484	723,038	894,657	952,529	229,724	579,650	870,331	673,965	650,250	692,396	738,008	965,292	8,563,324
Emissions Factor (MT/MMBtu)	0	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
Monthly MT Emissions (MT)	0	32,027	39,019	48,280	51,403	12,397	31,281	46,967	36,371	35,091	37,365	39,827	52,092	462,120
Cumulative MT Obligation (MT)	0	32,027	71,046	119,326	170,730	183,127	214,407	261,375	297,745	332,836	370,201	410,028	462,120	462,120
Compliance Instrument Participant Transfers (to LEC)														
Auction Allowances	92,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	0	0	46,290	460,633
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	92,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	0	0	46,290	460,633
NCPA Compliance Instrument Purchases (for LEC)														
Auction Purchases	47,000	0	0	0	0	0	0	0	0	0	0	0	0	47,000
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NCPA Compliance Instrument Purchases (MT)	47,000	0	0	0	0	0	0	0	0	0	0	0	0	47,000
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Monthly Activity (MT)	139,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	0	0	46,290	507,633
Cumulative MT Account Balance [MTA] (MT)	139,695	145,045	145,045	158,689	263,689	314,321	344,949	346,549	448,749	461,343	461,343	461,343	507,633	507,633
MTA Shortfall (MT)	(139,695)	(113,018)	(73,999)	(39,363)	(92,959)	(131,194)	(130,542)	(85,174)	(151,004)	(128,507)	(91,142)	(51,315)	(45,513)	(45,513)

2013 NCPA Air Resources Bill LEC GHG Compliance Instrument Detail Report <i>(with Lodi Energy Center)</i>	2014 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center														Compliance Year 2014 Total	Cumulative Totals Total	Charge Code	Source
	Actual							Estimated										
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER						
Energy (MWh)	136,604	156,089	120,489	55,378	71,210	51,037	118,473	69,006	178,831	208,541	48,938	105,661	1,320,256	2,531,200		Forecast/Meter		
Gas Schedule (MMBtu)	951,700	1,092,730	858,805	391,272	512,068	371,695	836,762	496,327	1,251,547	1,459,785	342,563	739,624	9,304,877	17,868,202		Forecast/Meter		
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054				MARS		
Monthly MT Emissions (MT)	51,358	58,969	46,345	21,115	27,634	20,059	45,156	26,784	67,540	78,777	18,486	39,914	502,138	964,257		derived		
Cumulative MT Obligation (MT)	513,478	572,447	618,793	639,908	667,542	687,600	732,756	759,540	827,080	905,857	924,344	964,257	964,257	964,257		derived		
Compliance Instrument Participant Transfers (to LEC)																		
Auction Allowances	102,347	50,000	48,066	25,000	1,290	138,448	0	0	13,586	56,888	0	0	435,625	896,258		CITSS		
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0		CITSS		
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0		CITSS		
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0	0		CITSS		
Total Compliance Instrument Participant Transfers (MT)	102,347	50,000	48,066	25,000	1,290	138,448	0	0	13,586	56,888	0	0	435,625	896,258				
NCPA Compliance Instrument Purchases (for LEC)																		
Auction Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	47,000		CITSS		
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0		CITSS		
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0		CITSS		
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0		CITSS		
Total NCPA Compliance Instrument Purchases (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0	47,000				
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0	0		CITSS		
Total Monthly Activity (MT)	102,347	50,000	48,066	25,000	1,290	138,448	0	0	13,586	56,888	0	0	435,625	943,258		derived		
Cumulative MT Account Balance [MTA] (MT)	609,980	659,980	708,046	733,046	734,336	872,784	872,784	872,784	886,370	943,258	943,258	943,258	943,258	943,258		derived		
MTA Shortfall (MT)	(96,502)	(87,533)	(89,253)	(93,138)	(66,794)	(185,184)	(140,028)	(113,244)	(59,290)	(37,401)	(18,914)	20,999	20,999	20,999	MTA SHORTFALL	derived		

Forecast for July-December 2014 has been updated.

NCPA All Resources Bill LEC GHG Obligation Detail Report (Cumulative)
November 2014

IDENTIFIER	AZUSA	BART	BIG	CDWR	GRI	HEA	LOD	LOM	MID	PLU	PWRPA	SNCL	UKI	TOTAL	Charge Code	Source
Allocation Percentages																
Generation Entitlement Share %	2.7857%	6.6000%	0.2679%	33.5000%	1.9643%	1.6428%	9.5000%	2.0357%	10.7143%	0.7857%	2.6679%	25.7500%	1.7857%	100%		MARS
Obligation Accounts																
Current MT Compliance Obligation (MTO) Balance (MT)	25,749	61,007	2,476	309,655	18,157	15,185	87,813	18,817	99,037	7,263	24,661	238,018	16,506	924,344		derived
Current MT Compliance Instrument Account (MTA) Balance (MT)	26,000	82,200	2,477	325,000	18,157	15,186	87,813	24,200	105,000	7,520	24,787	260,000	17,219	995,559		derived
MTA Shortfall (MT)	(251)	(21,193)	(1)	(15,345)	(0)	(1)	(0)	(5,384)	(5,963)	(257)	(126)	(21,982)	(713)	(71,216)	MTA SHORTFALL	Derived
Monthly GHG Price \$/MT	12.09	12.09	12.09	12.09	12.09	12.09	12.09	12.09	12.09	12.09	12.09	12.09	12.09	12.09	MTA SHORTFALL	ICE Index
GHG Minimum Cash Compliance Obligation (\$)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MTA SHORTFALL	Derived
Current Month CCA Balance (\$)*	60,991	0	143	0	1,103	4,780	755	0	0	0	0	0	2,652	70,424	CCA BALANCE	Accounting
Net GHG Obligation (\$) -Revised	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NET GHG OBLIG	Derived

* The Current Month CCA Balance (\$) consists of the current cash balance plus any outstanding balance of Net GHG Obligation (\$) billed but not yet received.



Lodi Energy Center Project Participant Committee

Staff Report

AGENDA ITEM NO.: 7

Date: November 3, 2014
To: Lodi Energy Center Project Participant Committee
Subject: Combustion Turbine Facilities - Reliability Optimization, Inc. Five Year Multi-Task General Services Agreement

Proposal

Approve a five year Multi-Task General Services Agreement with Reliability Optimization, Inc. for an amount not to exceed Seven Hundred Thousand Dollars (\$700,000) to be used for predictive maintenance services at the CT/LEC facilities.

Background

Predictive maintenance services are required at various NCPA locations for the operation of the plants. Reliability Optimization, Inc. is a provider of these services. NCPA previously was party to an enabling agreement with Reliability Optimization, Inc. which expired on October 19, 2014.

Fiscal Impact

The total cost of the agreement will be not-to-exceed \$700,000 over the five year term 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.

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.

Recommendation

Staff recommends that the PPC pass a motion approving the Multi-Task General Services Agreement with Reliability Optimization, Inc., with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$700,000 over five years.

Prepared by:

/s/

MELISSA PHILPOT
Material Procurement and Warehouse Coordinator

Attachments: (1)

- Multi-Task General Services Agreement with Reliability Optimization, Inc.



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

This agreement for general services ("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 Reliability Optimization, Inc., a corporation with its office located at 1211 Halidon Way, Folsom, CA 95630 ("Contractor") (together sometimes referred to as the "Parties") as of _____, 2014 ("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 **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.

Section 2. COMPENSATION. Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED SEVEN HUNDRED THOUSAND** dollars (\$700,000.00) 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;
- 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

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.** Intentionally left blank.

4.4 **All Policies Requirements.**

4.4.1 **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, adding the

Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

4.4.2 **Notice of Reduction in or Cancellation of Coverage.** 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.

4.4.3 **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 **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.

4.6 **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.

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.

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 **Work Requiring Payment of Prevailing Wages.** If applicable, 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 these services are to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in the California Labor Code shall be paid to all workers engaged in performing the services under this Agreement.

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 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 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 to 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 the Agreement.

9.4 **Confidential Information and Disclosure.**

- 9.4.1 **Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as Confidential Information in accordance with this section.
- 9.4.2 **Non-Disclosure of Confidential Information.** During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- 9.4.3 **Permitted Disclosure.** Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
- 9.4.3.1 Disclosure to employees, agents, Contractors, 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.** Conclusion of Agreement. Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof) upon termination of this Agreement, if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of

this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, Contractors, 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 Agency's operations and the operations of 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. Agency will not 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. Agency may assume that anything left on the Project site an unreasonable length of time after the Work is completed has been abandoned. Any transportation furnished by Agency shall be solely as an accommodation and Agency shall have no 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 Agency owned equipment and property provided by Agency 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 Agency site programs.

- 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 to include diesel fuel used for trucks owned or leased by the Contractor.

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:

Reliability Optimization, Inc.
Attention: Kevin Nordenstrom, President
1211 Halidon Way
Folsom, CA 95630

Any written notice to Agency shall be sent to:

James H. Pope
General Manager
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

With a copy to:

Michael F. Dean
General Counsel
Northern California Power Agency
Meyers Nave
555 Capitol Mall, Suite 1200
Sacramento, CA 95814

- 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 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, and Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and the Contractor's Proposal, the Exhibits 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.

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

NORTHERN CALIFORNIA POWER AGENCY

RELIABILITY OPTIMIZATION, INC.

Date _____

Date _____

JAMES H. POPE, General Manager

KEVIN NORDENSTROM, President

Attest:

Assistant Secretary of the Commission
Approved as to Form:

Assistant General Counsel

EXHIBIT A

SCOPE OF WORK

Reliability Optimization, Inc. ("Contractor") shall provide predictive maintenance services as requested by the Northern California Power Agency ("Agency").

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

- Vibration Testing
- On-Line/Off-Line Motor Analysis
- Infrared Thermographic Imaging
- Airborne Ultrasonic Testing
- Corona Survey
- Lubrication Oil Analysis
- Transformer Oil Analysis
- SF6 Gas Analysis
- Generator & Generator Step Up Transformer Partial Discharge Analysis
- PdM Testing Reporting

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

- Lodi Energy Center – \$81,621 annually, billed at \$6,801.75 monthly
- Lodi CT #1 – \$12,020 annually, billed at \$6,010.00 semi-annually
- Alameda CT #1 & 2 – \$16,627 annually, billed at \$8,313.50 semi-annually
- STIG – \$17,703 annually, billed at \$8,851.50 semi-annually

If additional work is needed outside of the standard scope of predictive maintenance, the pricing will be agreed upon at the time a Purchase Order is issued.

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

(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.



Lodi Energy Center Project Participant Committee

Staff Report

AGENDA ITEM NO.: 8

Date: October 31, 2014
To: Lodi Energy Center Project Participant Committee
Subject: T3000 Maintenance and Support - Siemens Energy, Inc. Three (3) Year Multi-Task General Services Agreement

Proposal

Approve a three year Multi-Task General Services Agreement with Siemens Energy, Inc. for an amount not to exceed Three Hundred Forty Thousand Dollars (\$600,000) to be used for the SPPA-T3000 Control System maintenance and support at the Lodi Energy Center (LEC) and Geothermal (GEO) locations.

Background

T3000 maintenance and support services are required at the LEC and GEO locations for operations and maintenance. Siemens Energy, Inc. provides these services. This is a sole source agreement due to Siemens' Original Equipment Manufacturer technical expertise on the system. The software contains proprietary code regarding the control algorithms for the plant operation.

Fiscal Impact

Total cost of the agreement is not-to-exceed \$600,000 over three years. A breakdown of the yearly costs for the standard long term maintenance services (totaling \$436,323) are as follows:

LODI ENERGY CENTER:

<u>LTSP Year</u>	<u>Invoice Amount</u>
1	\$80,000.00
2	\$80,000.00
3	\$80,000.00

GEO THERMAL GEYSERS:

<u>LTSP Year</u>	<u>Invoice Amount</u>
1	\$65,441.00
2	\$65,441.00
3	\$65,441.00

Additional services may be necessary during the three year period, hence a need for the total agreement not to exceed \$600,000 total. All Purchase Orders issued pursuant to this agreement will be charged against existing and future approved Annual Operating Budgets as services are rendered. Purchase orders referencing the terms and conditions of the Agreement will be issued following NCPA procurement policies and procedures.

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.

Recommendation

Staff recommends that the PPC pass a motion approving the Multi-Task General Services Agreement with Siemens Energy, Inc., with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$600,000 over three years.

Prepared by:

/s/

MELISSA PHILPOT
Material Procurement and Warehouse Coordinator

Attachments: (1)

- Multi-Task General Services Agreement with Siemens Energy, Inc.



(Draft as of 10-30-2014 – Legal Finalizing)
MULTI-TASK
GENERAL SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
SIEMENS ENERGY, INC.

This agreement for general services ("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 Siemens Energy, Inc., a Delaware corporation with its office located at 1345 Ridgeland Parkway, Suite 116, Alpharetta, GA 30004 ("Contractor") (together sometimes referred to as the "Parties") as of _____, 2014 ("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 for the Agency's Lodi Energy Center and Geysers Geothermal Station (individually, a "Site" and collectively the "Sites") 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 three (3) 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 at Agency's Sites in connection with this Agreement. In the event that Agency reasonably objects to personnel assigned by Contractor, Agency shall notify Contractor of such objection in writing and Contractor shall assign other personnel. Where Contractor furnishes technical field assistance services, Agency shall be responsible for supervision, management, and regulation of Agency's personnel, agents or contractors and work relating thereto, and responsible for planning, scheduling, monitoring, measurement or management of any work performed by Agency.
- 1.4 **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. Each Purchase Order shall: (i) be separately numbered and (ii) contain at a minimum the following information: name of contracting Parties, date of this Agreement, date of Purchase Order, specific project location, description of the specific Work to be performed ("Requested Work"), date when the Requested Work is to be performed or delivered, and may include a not-to-exceed monetary cap on Requested Work. The Parties agree that no Purchase Order shall amend or modify this Agreement. The projects for which the Agency issues a Purchase Order are herein referred to individually as a "Project" and collectively

as the "Projects." Contractor has the discretion to accept or reject any Purchase Order issued by Agency. Contractor is presumed to have accepted the Purchase Order and agreed to perform the Work thereunder unless, within fifteen (15) days of receipt of the Purchase Order, Contractor provides written notice to the Agency of Contractor's rejection of such Purchase Order.

- 1.5 **Changes.** Provided that Agency gives reasonable advance notice to Contractor, Agency may propose in writing changes to Contractor's work within the Scope of Work described in any particular Purchase Order ("Change Order"). Contractor is presumed to have accepted the Change Order and agreed to perform the Work thereunder unless, within fifteen (15) days of the date of the Change Order, Contractor provides written notice to the Agency of Contractor's rejection of such Change Order and reasoning therefor. Contractor may also initiate such notification, upon identifying a condition which may change the Scope of Work as agreed at the time of execution of the Purchase Order covering such Scope of Work. When and if Agency and Contractor reach agreement on any such proposed change and its effect on the cost and time for performance under any Purchase Order, they shall confirm such agreement in writing as a Change Order.

Section 2. COMPENSATION. Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED SIX HUNDRED THOUSAND** dollars (\$600,000.00) 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 payment schedule contained in Exhibit B. 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;
- For T&M services only: 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;
- For T&M services only: 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

- 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 employment taxes incurred under this Agreement and any similar federal or state taxes. The dollar amount set forth and authorized in a Purchase Order does not include any state or local taxes. Such taxes are for the account of Agency and Agency agrees to pay any such tax when due or to reimburse Contractor consistent with the payment terms set forth herein. Should Agency be exempted from any such tax, it shall provide Contractor certification thereof no later than the effective date of the Purchase Order. Contractor shall split labor vs. material costs on any invoice submitted so it is clear what items are taxable and shall identify any taxable items.
- 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 Contractor's 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 one million dollars (\$1,000,000.00) per accident/ each employee each disease/ policy aggregate.
- 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 in an amount of Two Million Dollars (\$2,000,000.00) per occurrence/general aggregate, combined single limit coverage. Such coverage shall include products liability, bodily injury, death, personal injury and broad form property damage. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 on "an occurrence" basis covering comprehensive General Liability. The Agency shall be named as an additional insured and the insurance shall provide primary coverage with respect to the Agency as set forth in Section 4.5 below.
- 4.2.2 **Automobile Liability.** Contractor shall maintain automobile liability insurance form CA 0001 for the term of this Agreement covering owned, non-owned and hired autos. The policy shall provide a limit of \$1,000,000 per each accident.
- 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.** If applicable Contractor shall maintain professional liability insurance for licensed professionals performing work in connection with this Agreement in the amount of One Million Dollars (\$1,000,000.00) per occurrence and in the aggregate covering errors and omissions, which coverage may be provided by way of an endorsement to Contractor's Commercial General Liability coverage.
- 4.4 **All Policies Requirements.**
- 4.4.1 **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, including the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement as set forth in Section 4.5 below.
- 4.4.2 **Notice of Reduction in or Cancellation of Coverage.** Prior to beginning work under this Agreement, Contractor shall provide an endorsement indicating that all insurance obtained in accordance with this Agreement shall not be suspended, voided, canceled by either party, or materially reduced in coverage or in limits, except after thirty (30) days prior written notice by mail has been given to the Agency.
- 4.4.3 **Not Used.**
- 4.5 **Waiver of Subrogation and Additional Insured Provision.** Contractor will require all insurance policies in any way related to the work under this Agreement secured and

maintained by Contractor to include clauses stating each underwriter will waive all rights of recovery under subrogation or otherwise, against Agency, and all tiers of subcontractors or consultants engaged by them. Contractor agrees to provide any endorsement that may be necessary to effect this waiver of subrogation. Contractor will require of its subcontractors for work under this Agreement, by appropriate written agreements, similar waivers each in favor of all parties enumerated in this section.

The General Liability and Automobile policies providing insurance as required, will provide a defense for, and shall include as additional insureds on a primary basis all Agency members, project participants, directors, officers, representatives and employees but only to the extent that bodily injury or death or third party property damage are caused by the negligent acts or omissions of Contractor. The coverage afforded to such additional insureds shall apply on a primary basis and that no other insurance maintained by Agency shall be called upon to contribute to a loss covered by a policy effected by Contractor. If the additional insured has other insurance applicable to the loss, such insurance will be on an excess or contingent basis and the amount of Contractor's insurance will not be reduced by the existence of such other insurance. Such insurance shall be maintained for two (2) years after the termination or expiration of this Agreement.

4.6 Contractor's Obligation. Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized by Contractor 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 at Agency's sites 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.

4.7 Agency's Insurance: Agency shall maintain or cause to be maintained Worker's Compensation/Employer's Liability, Commercial General Liability and Automobile Liability insurance as follows:

Commercial general and automobile liability insurance for the term of this Agreement in an amount of One Million Dollars (\$1,000,000.00) per occurrence/general aggregate, combined single limit coverage for risks associated with the work contemplated by this Agreement.

The Agency shall require each of its subcontractors performing work at the Project site at similar times as Contractor to procure and maintain during the life of such subcontract, insurance of the types and with limits that the Agency deems appropriate for the work of its subcontractor(s).

Agency shall submit to Contractor a certificate of insurance which shall reflect the following:

- (a) That the general liability, automobile, and any other insurance maintained by Agency shall include as additional insureds on an excess or contingent basis Contractor, its affiliates, directors, officers, agents and employees;
- (b) That forty-five (45) days' notice of change or cancellation shall be afforded; and
- (c) That all insurance policies maintained by the Agency pursuant to this section shall include clauses stating each underwriter will waive all rights of subrogation against Contractor. If Agency does not obtain any such waiver of subrogation, Agency shall defend, indemnify and hold harmless Contractor in and from any claim or proceeding by Agency's insurer(s) seeking subrogation which should have been waived.

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 defend, indemnify, and save harmless Agency from and against claims for personal injury (including disease, sickness, and death) and for physical damage to or loss of property, other than property provided by Contractor and incorporated or intended to be incorporated into the Project (except as provided pursuant to Section 11) to the extent caused by the negligent acts or omissions or willful misconduct of Contractor, its officials, officers, employees or agents during the performance of Work at the Site. In no event shall Contractor's obligations under this indemnity provision apply to any claim by a customer of Agency for voltage or frequency fluctuation or service interruption of any kind, or to any claim by any third party for failure of Agency to provide power or capacity under any contract, and provided further that in no event shall the term "third party" as used in this paragraph apply to any affiliate or lender of Agency or any transferee of some or all of the Work.

Agency shall defend, indemnify, and save harmless Contractor from and against claims for personal injury (including disease, sickness, and death) and for physical damage to or loss of property to the extent caused by the negligent acts or omissions or willful misconduct of Agency, its officials, officers, employees, or agents.

The Party seeking the indemnification shall promptly give written notice to the other Party of any third party action for which indemnification is being sought and provide the

other Party with the opportunity to participate in all settlement negotiations respecting such claim.

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.

- 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. Neither Party may assign this Agreement or applicable Purchase Order or any interest therein without the prior written approval of the other Party, which approval shall not be unreasonably withheld. Contractor shall not subcontract any portion of the performance contemplated and provided for herein for provision of Work at Agency's Site with a subcontractor not listed on an approved vendor list in the Purchase Order 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; 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.

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. The Purchase Order Price is based on Contractor's compliance with these laws, rules and regulations as they are in effect on the effective date of the Agreement. Accordingly, if any changes in the Scope of Work are required because of changes in such laws, rules or regulations after that date or because of the imposition of additional laws, rules or regulations, the Purchase Order Price, schedule for performance and other pertinent provisions of this Contract shall be equitably adjusted to reflect the effect of such changes via the change order provisions of Section 1.5 of the Agreement.
- 7.3 **Licenses and Permits.** Contractor represents and warrants to Agency that Contractor and its employees, agents, and any subcontractors have all licenses, permits, qualifications, and approvals of whatsoever nature which are required to be in the name of Contractor or its employees, agents, and any subcontractors that are legally required to practice their respective professions to perform the Scope of Work. Agency shall be responsible for obtaining, maintaining, and paying for the cost of any licenses, permits, and/or other authorizations of any kind required for installation, maintenance, testing, or operation of the Agency's equipment, or any portion thereof.
- 7.4 **Work Requiring Payment of Prevailing Wages.** If applicable, 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 these services are to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in the California Labor Code shall be paid to all workers engaged in performing the services under this Agreement.

Section 8. TERMINATION AND MODIFICATION.

- 8.1 **Termination by Agency.** This Agreement may be terminated by Agency without cause upon written notice to Contractor. In the event of termination, Contractor shall be entitled to compensation, by payment within thirty (30) days, for Work completed in accordance

with the Agreement as of the effective date of termination and, if applicable, the Termination Charge, as that term is defined in Exhibit B. Agency, however, may condition payment upon Contractor delivering to Agency any or all records or documents (as referenced in Section 9.1 hereof). Compensation for Work completed in accordance with the Agreement prior to termination shall be based upon the portion of the purchase price for the Work performed, staff hours expended and materials acquired at as the date of termination plus any additional expense incurred by reason of termination or cancellation of written agreements between Contractor and its suppliers. Contractor will make every reasonable effort to minimize such costs upon termination. Payments made by Agency and received by Contractor under a Purchase Order prior to the date of termination will be credited against the amount due as termination charges under this Section 8.1, exclusive of the Termination Charge.

8.2 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, and provided Contractor has not substantially commenced cure of such default within thirty (30) days after receipt of written notice from Agency of such material default, Agency's remedies shall include, but not be limited to, the following:

8.2.1 Immediately terminate the Agreement;

8.2.2 Retain the plans, specifications, drawings, reports, and documents prepared by Contractor pursuant to this Agreement as set forth in Section 9.1;

8.2.3 Retain a different Contractor to complete the Work not finished by Contractor; and/or

8.2.4 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. Agency shall use its best efforts to mitigate the cost for completion of such Work. Upon completion of the Work, the total cost of the Work shall be determined and substantiated and Agency shall provide Contractor notice thereof. If Agency's cost of completion exceeds the unpaid balance of the applicable Purchase Order Price before the termination date, Contractor shall be required to pay Agency the difference within twenty five (25) days after Agency's notice of the final cost. Upon either Party's final payment as specified in this Section 8.2.3, as applicable, neither Party shall have any rights or claims against the other.

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

- 8.4 **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.

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 is a specific deliverable by Contractor to Agency under a Purchase Order shall be the property of the Agency; provided however, no disclosure or transfer of such document shall grant or transfer any of Contractor's underlying intellectual property rights in the content of such documents, whether expressly or by operation of law. Contractor hereby agrees to deliver to Agency all documents which are property of Agency pursuant to this section upon termination of the Agreement to the extent such are complete at the time of such termination.
- 9.2 **Contractor's Books and Records.** Contractor shall maintain any and all records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the Agency under an applicable Purchase Order 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 the Purchase Order.
- 9.3 **Inspection and Audit of Records.** 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 (the "Disclosing Party") may disclose Confidential Information, to the other

party (the "Receiving Party"). The Receiving Party shall hold the Disclosing Party's Confidential Information in confidence, shall not disclose the Information to a third party without the Disclosing Party's prior written consent, and shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.

9.4.3 Handling of Requests for Confidential Information. Contractor understands that Agency is a public agency and is subject to the laws that may compel it to disclose information about Contractor's business. When required by appropriate government authority or when Agency has received a valid request under the California Public Records Act, Agency may disclose such Confidential Information to such government authority or requestor under any Public Records Act request, subject to the following conditions: (a) Agency shall provide Contractor 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) Agency shall provide to Contractor reasonable access to the documents Agency proposes to produce in response to any such request; (c) after Contractor is provided reasonable access to the documents Agency proposes to produce, Contractor shall have twenty (20) days within which to provide Owner with a list of those documents that Contractor objects to the Agency producing based on said documents being Confidential, Proprietary or Trade Secret information of Contractor (hereinafter the "Disputed Documents"); (d) within five (5) days of receiving any objection from Contractor, Agency shall provide a written notice to Contractor stating whether Agency agrees with Contractor's objections; (e) if Agency does not agree to some or all of Contractor's objections, Agency shall so state this in the response and shall specifically identify to Contractor which Disputed Documents Agency proposes to produce; and (f) Agency agrees, however, that it shall not produce any Disputed Documents until ten (10) days after it has provided Contractor with written notice in accordance with 9.3 (d) above so that Contractor 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 Agency is found by a court of competent jurisdiction to be responsible for reimbursing attorneys' fees or costs to one that files a California Public Records Act request as a result of failing to produce Disputed Documents, Contractor agrees to indemnify Agency for such fees and costs to the extent that Agency's failure to produce documents was based solely on Contractor's actions.

Under any and all circumstances relating to a request to the Agency for documentation, Agency shall make every reasonable effort (which shall include participation by Contractor in discussions with the government authority involved) to secure confidential treatment and minimization of the Confidential Information to be provided. In the event that efforts to secure confidential treatment are unsuccessful, Contractor shall have the prior right to revise such information to minimize the disclosure of such information in a manner consonant with its interests, the requirements of the government authority involved and applicable law, including the Public Records Act.

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 Agency's operations and the operations of 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 of Contractor's equipment, tools, supplies or materials required for performing the Work, whether owned, leased or rented. Agency will not 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. Agency may assume that anything left on the Project site an unreasonable length of time after the Work is completed has been abandoned. Any transportation furnished by Agency shall be solely as an accommodation and Agency shall have no 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 Agency owned equipment and property provided by Agency for the performance of Work.

Section 11. WARRANTY.

- 11.1 **Equipment Warranty.** Contractor warrants that the equipment, supplies or other materials furnished under a Purchase Order ("Equipment") will be free from defects in workmanship and material ("Equipment Warranty"). The warranty period for the Equipment, excluding consumables, shall extend until:

Twelve (12) months after the delivery of the Equipment. Hereinafter, the "Equipment Warranty Period."

If during the Equipment Warranty Period, Agency gives Contractor notice of any nonconformity to the Equipment Warranty, Contractor shall remedy such nonconformity by repair, replacement or modification. Should investigation by Contractor reveal that there is no nonconformity of the Equipment Warranty and if there was no reasonable

basis for Agency's report of a nonconformity, Agency shall reimburse Contractor for its reasonable expenses in connection therewith.

Where any item of Equipment or part thereof is repaired, replaced or modified pursuant to the foregoing, said item or part shall be further warranted to comply with the Equipment Warranty until the expiration of the Equipment Warranty Period of the original item of Equipment or part thereof or twelve months after the repair, replacement or modification of the Equipment, whichever is longer, but in no event longer than twenty-four months after the delivery of the original Equipment.

- 11.2 Software Warranty.** Contractor warrants that the software furnished under a Purchase Order ("Software") will be free of errors which materially affect its utility ("Software Warranty"). The warranty period for Software shall extend until:

Twelve (12) months after the delivery of the Software. Hereinafter, the "Software Warranty Period."

If during the Software Warranty Period, Agency gives Contractor notice of any nonconformity to the Software Warranty, Contractor shall at its option and expense correct the nonconformity by correction in the medium originally supplied or by providing a procedure to correct material errors. Third party Software shall be warranted on a pass through basis in the same manner and for the same period and extent provided to Contractor by the firm which supplied said third party software. Should investigation by Contractor reveal that there is no nonconformity of the Software Warranty as reported by Agency and if there was no reasonable basis for Agency's report of a nonconformity, Agency shall reimburse Contractor for its reasonable expenses in connection therewith.

Where any item of software nonconformity is repaired, replaced or modified pursuant in accordance with the foregoing, said item shall be further warranted to comply with the Software Warranty until the expiration of the Software Warranty Period of the original item of Software or six months after the repair, replacement or modification of the Software, whichever is longer, but in no event longer than eighteen months after the delivery of the original Software.

- 11.3 Work Warranty.** Contractor warrants that the Work performed hereunder including the advice and recommendations of its personnel will reflect competent professional knowledge and judgment consistent with Contractor engineering practices ("Work Warranty") beginning with the install of such portion of the Work and ending one (1) year after the completion of each portion of Work (the "Work Warranty Period").

If during the Work Warranty Period, Agency gives Contractor notice of any nonconformity to the Work Warranty, Contractor shall re-perform such nonconforming Work. If such re-performance is impractical, Contractor will refund the amount of the compensation paid to Contractor by Owner for such nonconforming portion of the Work.

Where any portion of the Work is re-performed, said portion shall be further warranted to comply with the Work Warranty until the expiration of the Work Warranty Period of the original portion of the Work or nine months after re-performance of the Work, whichever is longer, but in no event longer than twenty-one months after the completion of the original Work.

11.4 **Title Warranty.** Contractor warrants that the Equipment, when delivered, shall not be subject to any encumbrance, lien, security interest or other defect in title to the extent Contractor has received payment from Agency for such equipment ("Title Warranty"). In the event of any nonconformity to the Title Warranty, Contractor, upon notice of such failure shall defend the title to such Equipment.

11.5 **General Conditions of Warranty.** The following constitutes general conditions applicable to all warranties herein:

11.5.1 Agency shall follow Contractor's written recommendations furnished pursuant to the Purchase Order, and, in the absence thereof, follow generally accepted industry practices, in the receipt, handling, storage, protection, installation, maintenance, inspection, and operation of the Equipment. Repairs recommended in writing by Contractor prior to a report of nonconformity and which are required to be performed during the Equipment Warranty Period to alleviate the effects of normal wear and tear are not included under the Equipment Warranty.

11.5.2 Agency shall not (i) operate the Equipment beyond the operational limitations provided by Contractor, or (ii) subject the Equipment to accident, alteration (other than by Contractor), abuse and/or misuse.

11.5.3 If requested by Contractor, Agency, at Contractor's expense, shall provide working access to the defective or nonconforming equipment, including disassembling, removing, replacing and reinstalling the equipment and any other equipment, materials or structures to the extent necessary for Contractor to perform its warranty obligations.

11.5.4 Agency shall furnish, at the request and expense of Contractor, personnel (to the extent available and not inconsistent with job classifications) and, at Agency's expense, facilities, to the extent available, to assist Contractor in any repair or replacement pursuant to its warranty obligations.

11.5.5 Agency shall afford Contractor the opportunity to comment on its proposed system for recording operating data and allow Contractor the opportunity to review operating and maintenance records relating to the Plant.

11.5.6 Agency shall provide Contractor representatives reasonable access to the Site for the purpose of observing the Equipment and the operation and maintenance thereof.

11.5.7 Agency shall afford Contractor the opportunity to comment on technical and operating matters directly or indirectly associated with the performance of the Equipment.

11.5.8 Agency shall utilize reasonably recommended Contractor Technical Field Assistance either as a part of the Technical Field Assistance included in the Purchase Order Price or, in the event that the Technical Field Assistance included in the Purchase Order Price has been fully expended by Owner, as an additional scope item to be

purchased by Owner in accordance with Contractor's Service Price List in effect at the time the Technical Field Assistance is required.

11.5.9 Contractor will have no warranty responsibility for any Software, or portion thereof, which Agency has modified or merged with another computer program with which it was not designed by Contractor to operate.

11.5.10 Title to any defective items or components of Equipment that are replaced by Contractor as a part of Contractor's Warranty obligations hereunder shall, at Contractor's request, revert to Contractor at a deemed value of zero upon completion of such replacement.

11.6 **Exclusivity of Warranties and Remedies.** The only warranties and guarantees made by Contractor are those expressly enumerated in this Section 11. Any other statements of fact or descriptions whether expressed in the Purchase Order, or any attachments or Appendices thereto, or in any quotations, proposals, specifications, drawings or manuals, or other documentation concerning the Scope of Work, whether in electronic form or hardcopy, shall not be deemed to constitute a warranty or guarantee of the Work or any part thereof. THE WARRANTIES AND GUARANTEES PROVIDED IN THIS SECTION 11 ARE EXCLUSIVE AND NO OTHER WARRANTIES OR GUARANTEES OR CONDITIONS OF ANY KIND APPLY, 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), SHALL APPLY. Correction of defects in accordance with this Section 11 or a refund in accordance with this Section 11 in the manner and during the period provided herein shall constitute complete fulfillment of Agency's exclusive remedy for all the liabilities or responsibilities of Contractor and its subcontractors to Agency for defective or nonconforming Equipment, Software, or Work, whether the claims of Agency are based in contract, in tort (including negligence and strict liability), or otherwise. In the event that physical loss or damage to the Agency's property results from the failure of a defective portion of the Work or Equipment, Contractor's liability under this Section shall not exceed the cost of performing the warranty remedy, either by replacement, repair, modification, re-performance or correction which Contractor would have had to perform if such warranty remedy had been carried out immediately prior to the occurrence of the physical loss or damage. Contractor's responsibility for physical loss or damage to Agency property shall be exclusively as set out in Section 13.18.

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 Agency site programs.

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 at Agency's sites. 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 at Agency's sites performed when, Contractor is not in full compliance with this Section 12.
- 12.5 Contractor shall immediately report any known possible/claimed 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 to include diesel fuel used for trucks owned or leased by the Contractor.

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 request 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:

Siemens Energy, Inc.
Attention: Tom Delia
1345 Ridgeland Parkway, Suite 116
Alpharetta, GA 30004

Any written notice to Agency shall be sent to:

James H. Pope
General Manager
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

With a copy to:

Michael F. Dean
General Counsel
Northern California Power Agency
Meyers Nave
555 Capitol Mall, Suite 1200
Sacramento, CA 95814

- 13.9 **Professional Seal.** Where applicable in the determination of the Agency and so required in the technical specifications for the applicable Purchase Order, 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 prior to either Party initiating legal action. Notwithstanding the foregoing, pending the resolution process described in this Section 13.11, either Party shall have the right to pursue equitable relief in any court of competent jurisdiction solely as to a dispute under this Agreement for the protection of its proprietary or confidential information, trade secrets, patents, copyrights or other intellectual property. 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, and Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and the Contractor's Proposal, the Exhibits 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.

13.16 **Force Majeure.** Contractor will not be liable for failure to perform any obligation or delay in performance resulting from or contributed to by any reasonably unforeseeable cause that is beyond the reasonable control of Contractor 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 Agency; civil disturbance; insurrection or riot; sabotage; fire; inclement and highly unusual weather conditions for the respective location and time of year; 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 ("Force Majeure

Event"). Notwithstanding the foregoing and for the avoidance of doubt, the following shall not be considered a Force Majeure Event: 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; Contractor's inability to perform and complete the work for the Purchase Order price; and, for either Party, the obligation to make payment in accordance with the terms of the Agreement.

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.

If a Force Majeure Event occurs, Contractor shall promptly notify the Agency of the occurrence of that Force Majeure Event, its effect on performance, and how long Contractor expects it to last. Thereafter the Contractor shall update that information as reasonably necessary. During a Force Majeure Event, Contractor shall use reasonable efforts to resume its performance under this Agreement.

- 13.16 Limitation of Liability.** The aggregate liability of Contractor arising out of the performance or nonperformance of obligations in connection with a Purchase Order or the performance or nonperformance of Work under a Purchase Order, under any theory of recovery, whether based in contract, tort (including negligence and strict liability), or otherwise, shall not exceed an amount equal to one hundred percent (100%) of the amount of the Purchase Order or the amount of the applicable insurance specified in Section 4, whichever is greater.

In no event, whether based in contract, tort (including negligence and strict liability), or otherwise, shall Contractor be liable for damages for loss of profits or revenue or the loss of use of either; damage to the Work after risk of loss has transferred to Agency; loss by reason of Plant shutdown or inability to operate at capacity; damage to or loss of Agency's property or equipment (except as otherwise provided for and subject to the limitations stated in Section 13.18); costs of replacement power or capital; claims of Agency's customers; inventory or use charges; or incidental, indirect, special or consequential damages of any other kind or nature, whatsoever. The waivers and disclaimers of liability, releases from liability, and limitations on liability expressed in this Section 13.16 shall extend to Contractor and its subcontractors, affiliates, successors and assigns, and their respective partners, principals, shareholders, directors, officers, employees, and agents.

- 13.17 Delivery of Title and Risk of Loss.** Delivery of each item of Equipment shall occur for all shipments, arrival at the Site entrance, ready to be unloaded (hereinafter referred to as "Delivery" or "Delivery Point"). Provided that all payments are current in accordance with the Exhibit B, legal and equitable title and risk of loss for the Equipment, except for Software, shall pass to Agency on a "Delivered Duty Paid" ("DDP") basis, as that term is defined by the International Commercial Terms 2010.

Title to and right of possession of any Software licensed hereunder shall remain with Contractor, or its licensor, except that Agency shall have the right of possession and use of the Software provided hereunder at no cost for the term of the corresponding license provided herein, so long as no breach of the Agreement has been made by Agency and all payments due Contractor have been paid. Nothing in the Agreement shall be construed as giving Owner any right to sell, assign, lease or in any other manner transfer or encumber Contractor's, or its licensor's ownership of the Software, or as limiting Contractor, or its licensors, from using and licensing the Software to any third party.

13.18 Contractor's Responsibility for Damage to Agency's Property.

13.18.1 Subject to the provisions stated in this Section 13.18 below, if sudden and accidental damage to Agency property is caused by (1) the failure of any Equipment or Work provided by Contractor pursuant to this Agreement to conform to the corresponding warranties provided in Sections 11.1 (Equipment) and 11.3 (Work), or (2) a negligent act or omission of Contractor during performance of the Work, then for each such event Contractor shall credit the Agency for the actual direct costs incurred by the Agency to the extent that such property damage was caused by such warranty non-conformance or negligence.

13.18.2 Seller's obligations under this Section 13.18 shall be limited on a per event basis and in the aggregate to the lesser of:

(a) the actual direct cost incurred by the Agency to repair the property damage, including uncovering, gaining access to, removal and replacement costs, to be substantiated to the reasonable satisfaction of Contractor, or

(b) an amount of one million Dollars (U.S. \$1,000,000).

13.18.3 If Agency procures or has procured property damage insurance applicable to occurrences at the Sites, Agency shall obtain a waiver by the insurers of all subrogation rights against Contractor. If Agency does not obtain any such waiver of subrogation, Agency shall defend, indemnify and hold harmless Contractor in and from any claim or proceeding by Agency's property damage insurer(s) seeking subrogation which should have been waived.

13.18.4 Except as specifically set forth in this Section 13.18, in no event shall Contractor have any responsibility or liability, under any theory of recovery, whether based in contract, tort (including negligence and strict liability), or otherwise, for any loss or damage to Agency's property as a result of (1) the failure of any Equipment or Work provided by Contractor pursuant to this Agreement to conform to the corresponding warranties provided in Sections 11.1 (Equipment) and 11.3 (Work), or (2) a negligent act or omission of Contractor during performance of the Work.

13.19 Software License. Contractor grants to Agency a nonexclusive, nontransferable license to utilize the Software furnished hereunder. Such license is limited to Agency's internal use at or for the unit with which such Software is incorporated. All title and ownership of the Contractor-furnished Software, including, without limitation, the copyright to such software, shall remain exclusively with Contractor. Agency may make a backup copy of the Software to replace a damaged original. Agency shall not itself, or with the assistance of others, reverse compile, reverse engineer, or in any other manner attempt to decipher in whole or in part the logic or coherence of any Software licensed hereunder. Third party Software provided by Contractor may be subject to a separate license agreement and /or registration requirements and limitations on copying and use.

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

NORTHERN CALIFORNIA POWER AGENCY

SIEMENS ENERGY, INC.

Date _____

Date _____

JAMES H. POPE, General Manager

MILAN FISCHER, Director of Finance

Attest:

Assistant Secretary of the Commission
Approved as to Form:

Assistant General Counsel

EXHIBIT A

SCOPE OF WORK

Siemens Energy, Inc. ("Contractor") shall provide Long Term Service Plan services as requested by the Northern California Power Agency ("Agency").

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

Plan Management and Support

The foundation of the Long Term Service Plan is the philosophy by which it is managed and supported. The Service team's goal is customer care. The Plan Management and Support structure includes:

- A dedicated, regional LTSP Manager (Service Project Lead)
- Central office support (Alpharetta, GA), leveraging cumulative process knowledge and product experience derived from direct field engineering on Siemens SPPA systems

SPPA-View Access

Included in Plan Management and Support is access to SPPA-View. SPPA-View is a powerful tool for presenting SPPA-T3000 engineering information. A licensed user with a secure internet connection has the ability to view the DCS logic diagrams using MS Internet Explorer. Access to project data is password-protected on an individual or group level. Administrative privileges versus General User privileges are fully configurable by the Buyer for each licensed user.

I&C Customer Portal

Siemens' I&C Customer Portal is included as a component of Plan Management and Support. It is a service that provides single-point access to Buyer's plant service and support history. It serves as a secure means for electronic data storage, eliminating the need for hardcopies and delays associated with delivering a hardcopy.

Remote Expert Center (REC) Hotline Support

Siemens provides telephone and online support, available through the Siemens Remote Expert Center (REC) 24 hours a day, 7 days a week to assist plant operations and maintenance staff with emergent events and schedule activities through the ability to logon, view and monitor the SPPA on request.

Siemens' REC "logs in" with Buyer's permission using a dedicated, Buyer-supplied broadband line and a Siemens-supplied router installed on site. The support package is offered with both limited or unlimited hours and a set number of high-priority cases, chosen by the Buyer. The following support packages are offered:

In the case of limited support hours, the time required to resolve the case will be measured by the Hotline. It will only include time the Hotline Experts actively worked to resolve the case and is rounded up to the nearest half hour. The pre-purchased hours will be debited by this amount.

Example:

An initial call takes 5 minutes to discuss the problem AND the Hotline Experts need 5 minutes to prepare a solution AND they need 10 minutes connected to the TXP system to fix the problem AND another 3 minutes to inform the operators about the solution THEN 23 minutes were required to resolve this case but 30 minutes are deducted from the existing balance.

In the case of limited hours, if the required hours for case resolution exceed the amount of hours included in the LTSP or the remaining balance after prior case debiting, billing for those hours will be at the LTSP discounted rate by case priority according to the rates specified under Plant Management and Support. If the pre-purchased hours are exhausted before the end of the LTSP year additional hours can be purchased upon customer request.

Remote Expert Center priority response times are defined as follows:

High Priority:	Within two (2) hours (Emergency issues needing immediate action)
Medium Priority:	Within one (1) business day (Issues needing a timely response)
Low Priority:	No promised response time, typically addressed within five (5) business days (Issues or questions not needing a timely response)

Siemens assumes a LAN-modem for the broadband line is already installed on site. If the modem is not installed, Siemens will install the modem upon customer request.

General consulting and engineering support for changes or control system extensions are not covered by this option but can be provided separately.

General process support is not covered by this option but can be provided separately.

A phone line must be dedicated or made available to the Hotline. The Hotline will only dial in with permission from the customer.

Included in this service is a twenty percent (20%) discount from published rates for Hotline Support. These discounted rates are used if the pre-purchased case hours in the Hotline Support Package are exhausted before the end of the LTSP year and support is rendered on a time and material basis. Also these rates will govern the purchase of additional case hours.

For Limited Hotline support, any remaining support time at the end of the LTSP year cannot be rolled over into the next year.

Remote System Administration and Diagnostic Services

Siemens' I&C Remote Expert Center (REC) maintains system expertise for performing system administrative tasks and system checks to proactively identify potential problems before they arise and to eliminate them. Siemens' REC representative "logs in" with Buyer's permission using a dedicated, Buyer-supplied broadband line and a Siemens-supplied router installed on site. The following system components are checked under this service:

SPPA-T3000 Automation System / ET200

- Check communications with the Automation Server
- Check for errors on the Automation Server
- Check current time capacity of the Automation Server
- Check communication of CM module serial links
- Check capacity of CM module disk space
- Check status of ET200 bus lines and I/O cards

SPPA-T3000 Application Server

- Check capacity of hard disk and free up space as required
- Check that virus and malware protection is current
- Check operating system logs
- Check FT Server hardware
- Check SPPA-T3000 logs
- Check SPPA-T3000 processes

SPPA-T3000 Thin Clients (Swap Server)

- Check capacity of hard disk and free up space as required
- Check Java logs and trace files
- Check operating system logs
- Check swapping area

SPPA-T3000 Thin Clients (Operating Station)

- Check capacity of hard disk and free up space as required
- Check Java logs and trace files
- Check operating system logs

SPPA-T3000 System

- Check time synchronization on Servers and Thin Clients
- Check SPPA-T3000 diagnostic files
- Check data archiving

On-site Field Service

Siemens' Onsite Field Service maintains tools, applications and system expertise for assisting plant operations and maintenance staff with emergent events and scheduled activities. If a failure arises in the control system that limits power output or causes a forced outage and on-site support is required for this emergent event, Field Services will respond upon customer request by dispatching a service engineer to resolve the problem. This dispatch occurs within twenty-four (24) hours of the request. If on-site support is required for an emergent event that does not limit power output or cause a forced outage, the response time to the request is seventy-two (72) hours. Pre-purchased Onsite Field Service hours can also be used toward scheduled or unscheduled maintenance visits, back-office technical support or toward other services, as requested. The twenty-four and seventy-two hour response times are defined as the time interval between the initial request for on-site support and the moment the service engineer is dispatched to travel.

Siemens assumes the cost for travel and expenses for each service call executed under this agreement.

A limited number of hours per LTSP year are provided. This limited support is defined as a set number of pre-purchased service hours available in a given LTSP year for on-site or back-office support and assistance. The time required resolving the issue or providing the service plus any associated travel time will be deducted from the pre-purchased hours.

Hours for service resolution plus travel that exceed the amount of hours included in the LTSP or the remaining balance after prior services will be billed at the LTSP discounted rate.

If the pre-purchased hours are exhausted before the end of the LTSP year, additional hours can be purchased upon customer request.

General engineering and on-site support for changes or control system extensions provided under other Siemens Fixed Price Proposals are not covered by this option.

Any remaining Field Service time at the end of an LTSP year can be rolled over into the next year, but no further than that.

Included in this service is a twenty percent (20%) discount from published rates for field services. These discounted rates are used if the pre-purchased service hours in the Onsite Field Services Package are exhausted before the end of the LTSP year and services are rendered on a time and material. These rates will govern the purchase of additional service hours.

Additional Field Service hours *do not* include travel and living expenses. Such expenses are invoiced at Siemens' cost, plus 10% administration fee.

Training

Training is offered as a fixed number of tuitions within an LTSP year, provided at the state-of-the-art training facility in Alpharetta, Georgia (see Training Catalog for available courses). A block of tuitions can be purchased and broken out amongst participants at the customer's discretion.

Example:

If five (5) tuitions are purchased, this can be used for five (5) separate class tuitions for one (1) participant; or this can be used as one (1) class tuition for five (5) participants.

Classes not regularly scheduled or designated as "special" courses in the training catalog are not covered by this LTSP.

Scheduled classes require a minimum of four (4) participants for the class. If a scheduled class does not have enough participants then it will be cancelled and combined with another scheduled class of the same type to make up the minimum requirement.

Training must be confirmed at least twelve (12) weeks prior to start of class.

Classes not covered by this LTSP can be purchased at a ten percent (10%) discount from the price listed within the current year's training catalog. In addition to the classes outlined in the training catalog,

Siemens can create customized training geared toward your power plant's specific requirements, which would also qualify for the ten percent (10%) discount.

All student travel and living expenses are the responsibility of the Buyer.

Patch Management Services

The SPPA-T3000 update function supports the plant operator to perform downloads, distribution and installation of released and tested software updates.

Malware Protection Services

TREND MICRO® malware protection (virus scanning) for SPPA-T3000 control systems provides all MS Windows-based computers, such as Thin Clients and Application Servers with the most current virus pattern in order to defeat Viruses, Trojans, Spyware, etc. All malware protection is tested and proven by Siemens on SPPA-T3000 before release.

Summary of LTSP Services for Lodi Energy Center:

A. Base Service and Support <input type="checkbox"/> 24/7 Support <input type="checkbox"/> Single Point of Contact <input type="checkbox"/> Priority response to critical needs <input type="checkbox"/> Access to Siemens SPPAView <input type="checkbox"/> Access to Siemens Customer Portal
B. System Administration <input type="checkbox"/> Two (2) System Check(s) per LTSP year
C. Hotline Support <input type="checkbox"/> Unlimited case hours per LTSP Year <input type="checkbox"/> Five (5) High Priority Cases per LTSP Year

<p>D. Field Services</p> <p><input type="checkbox"/> Twenty (20) field service hours per LTSP Year</p> <p><input type="checkbox"/> Twenty percent (20%) discount on additional Field Service hours purchased</p>
<p>F. Standard I&C Training Classes</p> <p><input type="checkbox"/> Two (2) Training Tuition(s) per year</p> <p><input type="checkbox"/> Ten percent (10%) discount on additional I&C Training Courses</p>
<p>G. Cyber Security Services</p> <p><input type="checkbox"/> Annual Malware Subscription</p> <p><input type="checkbox"/> Annual Patch Management Subscription</p>

Summary of LTSP Services for Geysers Geothermal Station:

<p>A. Base Service and Support</p> <p><input type="checkbox"/> 24/7 Support</p> <p><input type="checkbox"/> Single Point of Contact</p> <p><input type="checkbox"/> Priority response to critical needs</p> <p><input type="checkbox"/> Access to Siemens SPPAView</p> <p><input type="checkbox"/> Access to Siemens Customer Portal</p>
<p>C. Hotline Support</p> <p><input type="checkbox"/> Ten (10) case hours per LTSP Year</p> <p><input type="checkbox"/> Two (2) High Priority Cases per LTSP Year</p>
<p>D. Field Services</p> <p><input type="checkbox"/> Forty (40) service hours per LTSP Year</p> <p><input type="checkbox"/> Twenty percent (20%) discount on additional Field Service hours purchased</p>
<p>G. Cyber Security Services</p> <p><input type="checkbox"/> Annual Malware Subscription</p>

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

Siemens shall invoice Buyer in accordance with the schedule below:

LODI ENERGY CENTER:

<u>LTSP Year</u>	<u>Invoice Amount</u>
1	\$80,000.00
2	\$80,000.00
3	\$80,000.00

GEOHERMAL GEYSERS:

<u>LTSP Year</u>	<u>Invoice Amount</u>
1	\$65,441.00
2	\$65,441.00
3	\$65,441.00

NOTES:

1. NCPA understands that the LTSP pricing provided is a discounted price based upon an upfront purchase of three (3) years.
2. Buyer shall issue purchase order releases for each LTSP Year prior to the start date of such LTSP year for each year of the three (3) year LTSP.
3. In the event that the Buyer fails to issue a purchase order for any given LTSP Year, Buyer agrees to pay a cancellation fee in the amount of 10% of the price of any remaining LTSP Years at that time ("Termination Charge").

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

(Company name)

for contract work at

(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.

2320588.7



Lodi Energy Center Project Participant Committee

Staff Report

AGENDA ITEM NO.: 9

Date: October 31, 2014
To: Lodi Energy Center Project Participant Committee
Subject: H3 Construction Services, Inc. Agreement for Maintenance Services – All NCPA Sites

Proposal

Approve a Multi-Task General Services Agreement with H3 Construction Services, Inc. for an amount not to exceed Five Hundred Thousand Dollars (\$500,000) over five years, to be used on an as-needed basis for miscellaneous mechanical maintenance services at all NCPA facilities.

Background

Miscellaneous T&M maintenance services are required at various NCPA locations for the operation of the plants. H3 Construction Services, Inc. is a provider of these services. In addition to this agreement with H3 Construction Services, Inc., NCPA currently has three other enabling agreements with similar providers for maintenance services. NCPA will issue purchase orders based on cost and availability of the service(s) needed at the time.

Fiscal Impact

The total cost of the agreement will be not-to-exceed \$500,000 over the five year term 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.

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.

Recommendation

Staff recommends that the PPC pass a motion approving the Multi-Task General Services Agreement with H3 Construction Services, Inc., with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$500,000 over five years.

Prepared by:

/s/

MELISSA PHILPOT

Material Procurement and Warehouse Coordinator

Attachment: Multi-Task General Services Agreement with H3 Construction Services, Inc.



**MULTI-TASK
GENERAL SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
H3 CONSTRUCTION SERVICES, INC.**

This agreement for general services ("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 H3 Construction Services, Inc., a corporation, with its office located at 5214 Industrial Way, Anderson, CA 96007 ("Contractor") (together sometimes referred to as the "Parties") as of _____, 2014 ("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 **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.

Section 2. COMPENSATION. Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED FIVE HUNDRED THOUSAND** dollars (\$500,000.00) 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;
- 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

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.** Intentionally left blank.

4.4 **All Policies Requirements.**

4.4.1 **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, adding the

Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

4.4.2 **Notice of Reduction in or Cancellation of Coverage.** 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.

4.4.3 **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 **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.

4.6 **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.

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.

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 **Work Requiring Payment of Prevailing Wages.** If applicable, 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 these services are to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in the California Labor Code shall be paid to all workers engaged in performing the services under this Agreement.

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 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 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 to 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 the Agreement.

9.4 Confidential Information and Disclosure.

- 9.4.1 **Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as confidential Information in accordance with this section.
- 9.4.2 **Non-Disclosure of Confidential Information.** During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- 9.4.3 **Permitted Disclosure.** Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
- 9.4.3.1 Disclosure to employees, agents, Contractors, 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.** Conclusion of Agreement. Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof) upon termination of this Agreement, if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain

copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, Contractors, 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 Agency's operations and the operations of 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. Agency will not 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. Agency may assume that anything left on the Project site an unreasonable length of time after the Work is completed has been abandoned. Any transportation furnished by Agency shall be solely as an accommodation and Agency shall have no 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 Agency owned equipment and property provided by Agency 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 Agency site programs.

- 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 to include diesel fuel used for trucks owned or leased by the Contractor.

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:

H3 Construction Services, Inc.
Attention: Blaine Hudson
P.O. Box 1337
Anderson, CA 96007

Any written notice to Agency shall be sent to:

James H. Pope
General Manager
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

With a copy to:

Michael F. Dean
General Counsel
Northern California Power Agency
Meyers Nave
555 Capitol Mall, Suite 1200
Sacramento, CA 95814

- 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 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, and Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and the Contractor's Proposal, the Exhibits 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.

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

NORTHERN CALIFORNIA POWER AGENCY

H3 CONSTRUCTION SERVICES, INC.

Date_____

Date_____

JAMES H. POPE, General Manager

BLAINE HUDSON, CFO

Attest:

Assistant Secretary of the Commission
Approved as to Form:

Ruthann G. Ziegler, Assistant General Counsel

EXHIBIT A
SCOPE OF WORK

H3 Construction Services, Inc. ("Contractor") shall provide T&M maintenance services as requested by the Northern California Power Agency ("Agency").

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

- Hydrotesting
- HRSG maintenance
- Catalyst maintenance
- Troubleshooting
- Piping maintenance
- Outage support
- Plant Equipment Maintenance

Note: None of the above listed services shall include work that would qualify as a Public Works Project under state law.

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

H3 Construction Services Inc. Schedule of Rates as of 7/01/2014 good through 12/31/2014

Schedule of Hourly Rates for Labor In the following Counties Northern California:

Colusa	Del Norte	San Joaquin
Eldorado	Glenn	
Humboldt	Lassen	
Modoc	Napa	
Nevada	Placer	
Plumas	Sacramento	
Shasta	Sierra	
Siskiyou	Sutter	
Tehama	Trinity	
Yolo	Yuba	

<u>Classification</u>	<u>Straight Time Hourly Rate</u>	<u>Overtime Hourly Rate</u>	<u>Weekends & Holiday Hourly Rate</u>
Supervisor	\$120.00	\$130.00	\$156.00
Foreman	\$95.00	\$120.00	\$147.00
Plumber/Fitter	\$87.00	\$110.00	\$133.00
Laborer	\$77.00	\$95.00	\$109.00
Operator	\$111.00	\$127.00	\$152.00
Concrete Mason	\$79.00	\$98.00	\$116.00

Subsistence is paid at \$115.00 per day when 50 miles or more from local Union Hall and is not included in the labor rate.

Straight Time is defined as the first 8 hours Monday Through Friday.

Overtime is defined as the first 2 hours after straight time Monday Through Friday, and the first 10 hours Saturday.

All other time is paid at the Weekend and Holiday Rate.

Labor Rates do not include any consumables, materials, or equipment.

- Labor rates increase every year – Contractor will notify NCPA 30 days prior to rate increase.

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, Blaine Hudson, CFO

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

H3 CONSTRUCTION SERVICES, INC.

for contract work at: LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

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 _____, 2014.

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.



WorleyParsons

resources & energy

EcoNomics

NORTHERN CALIFORNIA POWER AGENCY

NCPA Lodi 230kV Switchyard 230kV Switchyard Ampacity Evaluation

Project 108010-00657

September 26, 2014

Power Networks

13901 Sutton Park Drive South, Suite 210

Jacksonville, Florida 32224 USA

Telephone: +1.904.683.6506

www.worleyparsons.com

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**NORTHERN CALIFORNIA POWER AGENCY
NCPA LODI 230KV SWITCHYARD
230KV SWITCHYARD AMPACITY EVALUATION**

Disclaimer

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PROJECT 108010-00657 - NCPA LODI 230KV SWITCHYARD

REV	DESCRIPTION	ORIG	REVIEW	WORLEY- PARSONS APPROVAL	DATE	CLIENT APPROVAL	DATE
A	Issue for Review	T. Betros	R. McAlister	T. Betros	26-SEP-2014	N/A	



**NORTHERN CALIFORNIA POWER AGENCY
NCPA LODI 230KV SWITCHYARD
230KV SWITCHYARD AMPACITY EVALUATION**

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**NORTHERN CALIFORNIA POWER AGENCY
NCPA LODI 230KV SWITCHYARD
230KV SWITCHYARD AMPACITY EVALUATION**

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**NORTHERN CALIFORNIA POWER AGENCY
NCPA LODI 230KV SWITCHYARD
230KV SWITCHYARD AMPACITY EVALUATION**

1 GENERAL

1.1 Purpose

The Northern California Power Agency (NCPA) has received notice from California Independent System Operators (CAISO) that four projects that have interconnection requests in their queue that would have potential impacts to NCPA's switchyard.

In order for these projects to proceed, CAISO would need to have the transmission line between NCPA's Lodi Switchyard and Pacific Gas & Electric's (PG&E's) 8-Mile Substation upgraded to a higher capacity. Currently the line utilizes 1113 AAC conductor with a summer rating of 329 MW. In order to satisfy the new load requirements, the line would need to be reconducted with 795 ACSS which has a summer rating of 604 MW. NCPA has taken a quick look at some of the ratings of its equipment within the Lodi 230kV Switchyard and believes that the air disconnects and current transformers would likely be underrated for this new load flow.

Note: At the development of this evaluation report, CAISO revealed a Phase II analysis of the Lodi / 8-Mile transmission line determined a new summer rating of this transmission line to be 754 MVA utilizing 1113 ACSS (this update was communicated to NCPA for direction). This evaluation report was developed under the original criteria of a 604 MW summer rating for the aforementioned transmission line.

1.2 Scope of Work

WorleyParsons proposed the following work plan for successfully completing the evaluation of the Lodi switchyard:

- A. Determination of what (if any) equipment would be necessary to upgrade (connections, bus, breakers, switches, relays, protection, control, transformers, etc.).

Deliverables – WorleyParsons engineers will conduct the evaluation of the Lodi Switchyard. They will begin by accumulating the required drawings from NCPA as well as coordinate with PG&E and CAISO to determine the needed power flow for each branch of the switchyard as a result of the demand increases. Once the benchmark ampacity requirements are determined, the ratings for all outdoor electrical components as well as all protection & control devices will be studied. WorleyParsons will prepare a list of all equipment that will not be sufficient for the future upgrades impacting the Lodi switchyard.

- B. Detailed cost estimate of the necessary detailed engineering required, equipment needed, and construction to implement such changes.



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Deliverables – Once the above list is determined, WorleyParsons will prepare a detailed engineering estimate to correct the items in the list (+/- 30% estimate).

1.3 Reference Drawings

The below NCPA Lodi drawings were referenced and used to determine the ampacity of existing equipment at the NCPA Lodi Switchyard and identify any electrical components that would be underrated for the future load flow. The experience is often incurred that information from time to time between as-built / record drawings and actual field conditions may differ. It is the recommendation of WorleyParsons that the ampacity of all equipment listed in this report be verified with equipment nameplate data as installed in the field. WorleyParsons would be pleased to provide a proposal for this service upon request.

DWG NO.	REV.	TITLE
LODI-1-DW-BA-206-001	3	Electrical - One Line Diagram Key One Line
LODI-1-DW-AD-206-001	3	One Line Diagram 230kV Switchyard Sheet 1 of 2
LODI-1-DW-AD-207-001	3	Three Line Diagram 230kV Switchyard New Lodi Energy Center Line Position
LODI-1-DW-AD-002-001	0	230kV Lodi Substation New Lodi Energy Center Line Position General Arrangement Plan
LODI-1-DW-AD-002-002	1	General Arrangement Sections 230kV Switchyard New Lodi Energy Center Line Position
LODI-1-DW-AD-400-001	0	230kV Lodi Substation New Lodi Energy Center Line Position Bill of Materials
LODI-1-DW-AD-215-001	1	Conduit Plan 230kV Switchyard New Lodi Energy Center
LODI-1-DW-BAU-219-001	1	Grounding Plan 230kV Switchyard New Lodi Energy Center



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2 DESIGN BASIS

2.1 Lodi / 8-Mile Transmission Line

The transmission line connection between the NCPA Lodi Switchyard and PG&E 8-Mile Substation is to be reconducted for a summer rating of 604 MW (currently has a 329 MW summer rating). A rating of 604 MW at 230kV requires approximately 1,518 A on the transmission line.

Based on standard nominal ratings of high-voltage electrical equipment, design criteria of 2,000 A was selected for this evaluation. The selection of a 2,000 A design criteria gives an allowable margin for future load capacity.

An outdoor, continuous rating of 2,000 A was the foundation for this evaluation report in which all electrical components in the Lodi Switchyard were to be rated for the new load flow. Terminal connections to the switchyard (e.g. GSU terminal) have ratings less than 2,000 A and are sized appropriately for the application.

2.2 Buswork

The buswork for the Lodi Switchyard is shown to be 4" IPS Aluminum.¹ Schedule 40, 4" IPS Aluminum has an outdoor ampacity of 2,436 A². At this ampacity rating, the existing buswork is shown to be more than sufficient for the Lodi / 8-Mile transmission line upgrade and does not warrant any upgrading.

2.3 Jumpers / Conductor

The conductor connections within the Lodi Switchyard are shown to be a single 1272 kcmil ACSR "Bittern" conductor per phase to each of the power circuit breakers and group switches. 1272 kcmil ACSR "Bittern" is shown to have an ampacity of 1,184 A³. At this ampacity rating, the existing conductor connections internal to the switchyard are not sufficient and will require being upgraded. It is recommended these be upgraded to a two (2) conductor jumper bundle for this purpose.

2.4 Group Operated Outdoor Switches (230kV)

The outdoor 230kV group operated switches for the Lodi Switchyard are listed below with their indicated rating:

¹ WorleyParsons was not able to verify whether the buswork was Schedule 40 or Schedule 80. Buswork is assumed to be Schedule 40.

² AFL Catalog.

³ Southwire Substation Jumper Standard Table.



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Switch Number	Existing Rating
1511	1,200 A
1513	1,200 A
1521	1,200 A
1523	1,200 A
1531	1,200 A
1533	1,200 A
1541 (new)	2,000 A
1543 (new)	2,000 A

Six (6) of the eight (8) outdoor group operated switches are indicated to have an ampacity less than 2,000 A; those switches listed as such have been identified to be upgraded.

Note: Upgrading the ampacity of a group operated switch does not necessarily warrant the replacement of the entire switch assembly. An evaluation may find that simply upgrading the “live parts” of the switch may be all that is required. Coordination with the switch manufacturer of a particular model can verify this option. Cleaveland / Price, Inc. is also known to make “live part” replacement kits not only for their own switches but also for those of other manufacturers.

2.5 Motorized Operated Outdoor Switches (230kV)

The outdoor 230kV motorized operated switches for the Lodi Switchyard are listed below with their indicated rating:

Switch Number	Existing Rating
1509	1,200 A
1510 (new)	2,000 A

One (1) of the two (2) outdoor motorized operated switches is indicated to have an ampacity less than 2,000 A; however, Switch 1509 is a terminal connection with the Stig Plant, and the 1,200 A ampacity of this switch and bus connection is believed to be sufficient as this is an existing terminal with no changes currently being proposed.

2.6 Power Circuit Breakers & Bushing Current Transformers (230kV)

The outdoor 230kV power circuit breakers and their corresponding bushing current transformers (BCT) for the Lodi Switchyard are listed below with their indicated rating:

Switch Number	Existing Rating	BCT Ratio
1512	2,000 A	2000:5 MR
1522	2,000 A	2000:5 MR
1532	2,000 A	2000:5 MR
1542 (new)	2,000 A	2000:5 MR



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All power circuit breakers and their BCTs are indicated to have an ampacity of 2,000 A; no power circuit breakers or BCTs will require being upgraded.

2.7 Overhead Line (230kV)

The overhead strain bus line (terminal connection) between the plant generator step-up (GSU) transformers and motorized Switch 1510 at the switchyard is indicated to be a single 1272 kcmil ACSR “Bittern” conductor per phase. The power, voltage, and ampacity ratings of the GSUs are shown below:

GSU Designation	MVA	kV	A
10BAT10GT001	135	230	339.3
11BAT10GT001	230	230	578.0

The combined full rated ampacity of the GSUs is 917.3 A; which, is well under the 1,184 A rating for the 1272 kcmil ACSR “Bittern” strain bus terminal connection. At this ampacity rating, the overhead strain bus line is sufficient and will not require upgrading.

2.8 Metering Units

The ampacity rating of the metering units (combo CT / VT devices) connected to the Lodi Energy Center line terminal (i.e. strain bus) is deemed to be sufficient and will not require being upgraded. Although the switchyard buswork is recommended to have an ampacity rating of 2,000 A, the equipment on the terminal connection to the Lodi Energy Center has an existing rating of 1,200 A. This ampacity rating is more than sufficient for the loading for the terminal connection to the Lodi Energy Center.

The voltage transformer portion of the metering units is not dependent on the current load of the associated buswork; therefore, this equipment will not be affected nor require upgrading.

The current transformer portion of the metering units has a 600/1200:5 ratio; therefore, this equipment will not be affected nor require upgrading.

2.9 Short Circuit Rating

According to the Queue Cluster 6 Phase I Study (Appendix A - Q945) dated January 17, 2014, “The short circuit duty assessment did not identify any violations on the system due to the addition of this project. Hence no short circuit duty mitigations are needed for the project.”

As the short circuit duty for this switchyard will require no mitigation tasks, no ground grid studies / augmentations or short circuit force analysis on buswork will be required for the facility. In addition, the short circuit rating of all existing equipment (e.g. 40kA for the 230kV power circuit breakers) does not warrant further investigation.



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2.10 Capacitor Voltage Transformers

The function of the capacitor voltage transformers is not dependent on the current load of the associated buswork; therefore, this equipment will not be affected nor require upgrading with increased current loads.

2.11 Wave Traps

The two (2) wave traps on the PG&E 230kV transmission lines to the Gold Hill and 8-Mile Substations connecting to the Lodi Switchyard are listed as 1,200 A. The wave traps are not sufficient and would therefore require being upgraded.

The wave trap on the transmission line to the PG&E 8-Mile Substation is indicated as being abandoned in place. If the wave trap is no longer being utilized, it is recommended to simply remove it physically from the system and perform any necessary bus modification during the reconductor of transmission line between the NCPA Lodi Switchyard and PG&E 8-Mile Substation.

2.12 Switch 229⁴

The PG&E 230kV transmission lines to the Gold Hill and 8-Mile Substations connecting to the Lodi Switchyard are tied together with a normally open (N.O.) bypass switch (i.e. Switch 229). The ampacity rating for this switch is listed as 1,200 A. At this ampacity rating, Switch 229 is not sufficient and will require being upgraded.

⁴ Not knowing the party (i.e. NCPA or PG&E) that will ultimately be responsible for the upgrade of this switch, it is captured and listed in the report for a thorough and accurate review.



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3 SUMMARY

3.1 Summarization of Equipment Upgrades

Equipment Designation	Equipment Type	Existing Rating
1511	Group Operated Switch	1,200 A
1513	Group Operated Switch	1,200 A
1521	Group Operated Switch	1,200 A
1523	Group Operated Switch	1,200 A
1531	Group Operated Switch	1,200 A
1533	Group Operated Switch	1,200 A
229 ⁵	Group Operated Switch	1,200 A
Gold Hill / Eight Mile	Wave Trap / Abandoned	1,200 A
Jumpers / Conductor	1272 kcmil ACSR "Bittern"	1,184 A

3.2 Summarization of Engineering Requirements

A. Substation (Layout) Engineering

1. Updating all relevant drawings detailing the upgrading of the required substation equipment.
2. Development of equipment / construction specifications.
3. Provide construction assistance (as required).

B. Protection & Control (Relay) Engineering

1. No upgrades in existing relay equipment were identified.
2. New protection & control line settings and parameters will be required with the reconductor of transmission line between the NCPA Lodi Switchyard and PG&E 8-Mile Substation.
3. Coordination between NCPA and PG&E is required for relay settings and remote ends.
4. Provide construction / commissioning assistance (as required).

C. Civil Engineering

⁵ Not knowing the party (i.e. NCPA or PG&E) that will ultimately be responsible for the upgrade of this switch, it is captured and listed in the report for a thorough and accurate review.



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1. No below-grade facilities will be modified / upgraded (e.g. ground grid); therefore, existing drainage and grading will be unaffected.
2. No civil / environmental permitting would be expected.

D. Structural Engineering

1. All identified substation equipment to be upgraded is expected to be replaced with similar type with a higher ampacity rating. The new equipment would be assumed to add a marginal amount of weight loading to the existing structures (e.g. switch stands) or otherwise require some very minor attachment details. It is reasonably assumed the marginal addition of any weight will not warrant the complete replacement of such structures.

3.3 Summarization of Construction Activities

- A. The upgrading of new 230kV outdoor group operated switches.
- B. Reconductoring of the connections between the 230kV power circuit breakers and group operated switches.



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4 COST ESTIMATE

4.1 Design & Engineering

- A. Substation / Layout Engineering \$20,000
- B. Protection & Control Engineering \$15,000

Note: The engineering estimate provided is solely based for detailed engineering design. It excludes potential travel expenses, site visits, construction support, etc. WorleyParsons has engineers experienced in providing assistance during construction activities and can be available upon request.

4.2 Equipment & Materials

Equipment & Materials	Quantity	Unit Cost	Total Cost
1200 A Wave Trap	1	\$10,000	\$10,000
230kV Group Operated Switches	7	\$15,000	\$105,000
1272 kcmil ACSR "Bittern"	1000 feet	\$4.00 / foot	\$4,000
Connectors, Terminals, Misc. Hardware	Lot	\$15,000	\$15,000

4.3 Construction

Construction	Quantity	Unit Cost	Total Cost
Wave Trap Replacement	1	\$10,000	\$10,000
Abandoned Wave Trap Bus Reconfiguration	1	\$2,000	\$2,000
230kV Group Operated Switch Replacement and Reconductoring	7	\$10,000	\$70,000

4.4 Total Cost

Design & Engineering	\$35,000
Equipment & Materials	\$134,000
Construction	\$82,000
Total Cost	\$251,000



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5 CONCLUSION

The findings of this evaluation report concludes only the 230kV outdoor group operated switches, wave traps, and associated conductor connections have been identified for upgrade as having an ampacity less than 2,000 A as deemed necessary for the main buswork of the switchyard ring bus. Originally, it was believed the current transformers would be underrated for the new load flow, record drawings indicate the opposite (assuming a bus rating of 2,000 A).

The information compiled in this evaluation report was derived from information as provided on available drawings and records. Experience has shown that information on drawings and records can prove to be inaccurate with actual equipment and materials installed in the field. It is the recommendation of WorleyParsons that the ampacity of all equipment listed in this report be verified with equipment nameplate data as installed in the field.

The project estimate is based upon reasonably expected engineering design, material cost, and construction schedule.

- Engineering estimate excludes items such as travel, site visit, construction support, etc.
- Equipment & material estimate may vary from manufacturer and with the materials market.
- Construction estimate may vary due to outage availability, contractor mobilization / demobilization, etc.

The project estimate has a variance of +/- 30% and was prepared for budgetary purposes (and not for use as a quotation).

As always, WorleyParsons is available to discuss and address any comments or questions pertaining to this evaluation report.