



12745 N. Thornton Road
Lodi, CA 95242

phone (209) 333-6370
fax (209) 333-6374
web www.ncpa.com

Memo

Date: March 6, 2014
To: NCPA Lodi Energy Center Project Participant Committee
From: Michael Werner, Chairman
Subject: **March 10, 2014 LEC Project Participant Committee Meeting Notice & Agenda**

PLEASE TAKE NOTICE that pursuant to Government Code section 94956, a meeting of the Northern California Power Agency Lodi Energy Center Project Participant Committee is hereby called for Monday, March 10, 2014 at 10:00 a.m. to discuss those matters listed in the attached Agenda. The meeting will be held at the Northern California Power Agency, 12745 N. Thornton Road, Lodi, California.

If you are unable to attend the meeting in person at the Lodi location and wish to attend via teleconference, in accordance with The Brown Act, you must attend at one of the locations listed on the Agenda and post the Agenda at that location by 10:00 a.m. on Friday, March 7, 2014, in a location that is accessible to the public until the completion of the meeting.



Michael Werner, Chairman



12745 N. Thornton Road
Lodi, CA 95242

phone (209) 333-6370
fax (209) 333-6374
web www.ncpa.com

Agenda

Date: March 5, 2014

Subject: March 10, 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.**

CITY OF LOMPOC 100 Civic Center Plaza Lompoc, CA	NCPA 12745 N. Thornton Road Lodi, 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	PLUMAS-SIERRA RURAL ELECTRIC COOP 73233 Highway 70 Portola, CA
CITY OF BIGGS 465 "C" Street Biggs, CA	CITY OF SANTA CLARA 1500 Warburton Avenue Santa Clara, CA	NCPA 651 Commerce Drive Roseville, CA
CITY OF UKIAH 411 W Clay Street Ukiah, CA	POWER & WATER RESOURCES POOLING AUTHORITY 2106 Homewood Way, Suite 100 Carmichael, 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

1. Call Meeting to Order and Roll Call

2. Meeting Minutes - Approval of PPC meeting minutes for the February 10, 2014 regular meeting

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.

MONTHLY REPORTS

- 3. Operational Report for February 2014** (*Jeremy Lawson*)
- 4. Market Data Report for February 2014** – Verbal Report (*Bob Caracristi*)
- 5. ISO Response to February Gas Price Spikes** - Verbal Report (*Gillian Biedler*)
- 6. 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.

- 7. Treasurer's Report for February 2014** – Accept by all Participants
- 8. Financial Report for February 2014** – Approve by all Participants
- 9. GHG Reports (excerpted from monthly ARB)** - Accept by all Participants
- 10. SBIW, Inc. Agreement** – Staff seeking approval of a five year Multi-Task General Services Agreement with SBIW, Inc. in an amount not to exceed \$1,000,000 for in-situ and offsite maintenance and machining services as needed at all facility locations. All purchase orders issued pursuant to this agreement will be charged against existing and future approved Annual Operating Budgets.

Consent Items pulled for discussion: _____

BUSINESS ACTION ITEMS

- 11. Standard Large Generator Interconnection Agreement Upgrade Project with CAISO** – Staff to present study results and project economics regarding application to increase delivered capacity for LEC from 280 MW to 304 MW; seeking approval of a budget augmentation in the amount of \$911,000 to enter into Phase Two of the LGIA study process; payment to CAISO due by April 14, 2014 (*Michael DeBortoli*)

12. Lodi Energy Center Annual Budget for Fiscal Year 2015 – Staff seeking approval of the LEC proposed annual budget for fiscal year 2015 (*Michael DeBortoli*)

13. LEC Project Management and Operations Agreement (PMOA) Schedule 1.00 Exhibit 8 – Staff seeking approval of a revised Exhibit 8-Settlement of CAISO Charge Codes and Allocations to Participants (*Bob Caracristi*)

INFORMATIONAL ITEMS

14. Cap-and-Trade Program Bidding Regulations – Staff to present update regarding recent activities regarding regulations as pertains to auction participation (*James Takehara*)

15. Data Portal Changes for new CAISO 15-Minute Market and 5-minute settlements – Staff to present update (*Bob Caracristi*)

16. Other New Business

ADJOURNMENT

Next Meeting: April 14, 2014

**Lodi Energy Center
Project Participant Committee Meeting
February 10, 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 10:00 a.m. by Chairman Mike Werner. He asked that roll be called as listed below.

Yarek Lehr (Azusa by telephone)
Frank Schultz (BART)
Connee Lloyd (BART by telephone)
Mark Sorensen (Biggs by telephone)
Mike Werner (CDWR)
Lloyd Rowe (CDWR)
Owen Stiles (Gridley by telephone)
Melissa Price (Lodi)
Marty Hostler (Lompoc)
Martin Caballero (MID)
Kent Palmerton (PWRPA by telephone)
Steve Hance (SVP)
Ken Speer (NCPA)
Mike DeBortoli (NCPA)
Jeremy Lawson (NCPA)
Linda Stone (NCPA)
Bob Caracristi (NCPA by telephone)
Donna Stevener (NCPA by telephone)
Ruthann Ziegler (Meyers-Nave by telephone)

Absent at roll call: Healdsburg, Plumas-Sierra, and Ukiah. A PPC quorum was present at roll call by both number and percentage share of Project capacity.

2. Meeting Minutes

The draft minutes for the January 13, 2014 regular meeting were considered. The LEC PPC considered the following motion:

Motion: The PPC approves the meeting minutes for the January 13, 2014 regular meeting, including any edits discussed at today's meeting.

Moved by: Gridley
Seconded by: SVP

Discussion: There was no further discussion.

Vote Summary on Motion		
Participant	Vote	Particulars / GES
Azusa	Absent	2.7857%
BART	Yes	6.6000%
Biggs	Yes	0.2679%
CDWR	Abstain	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	Yes	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	8	59.5001%
Total Noes	0	0.0000%
Total Abstain	1	33.5000%
Total Absent	4	6.9999%
Result:	Motion passed by quorum and GES share.	

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.

REPORTS

3. Operational Reports for January 2014

Jeremy Lawson presented the written Operational Report including Safety, Notice of Violations, Outage Summaries, Planned Outages, and Generating Unit Statistics for January. There were no OSHA Recordable accidents, no Permit violations and no NERC/WECC violations. There was one outage during the month from January 5-9 for the Rotor Air Cooler sleeve work as reported last month. Mike reported that Siemens has commenced the procurement process for a replacement RAC. It is now estimated that the delivery time is 30 weeks, not 24 weeks as previously thought. Delivery of the RAC is expected in August of this year. Staff hopes to push replacement of the RAC until the April 2015 planned outage. In response to a question from Mike Werner, Jeremy confirmed that all tubes have been sleeved except those that were previously plugged. Ken Speer said the vendor advised that if the sleeves last for six weeks, they more than likely will last up to four years.

Upcoming planned outages include April 2014 for the combustion turbine borescope and steam turbine minor inspection and April 2015 for combustion inspection.

The report reflected monthly production of 136,543 net MWH, 488 service hours, and equivalent operating availability of 84.85%. The report set forth the Capacity Factor @ 280MW Pmax of 65.55% and @ 302MW Pmax of 60.78%. During the month the plant had four hot starts, two warm starts, and one cold start.

4. Market Data Report for January 2014

Bob Caracristi discussed the operating and financial settlement results for the month and the SCP RA Non-Availability Charge.

5. Monthly Budget Review

Mike DeBortoli presented his monthly budget review for FY 14 with actual or estimated values updated for November and December 2013 and forecasted values listed for January through June. The forecasted numbers are based on the budget and have not yet been updated. The insurance expense number was up with the payment made in December. The adopted budget was based on a normal hydro year. Mike will update the report to include revised hydro conditions at the next meeting. Ken Speer noted that the report will match Bob Caracristi's reporting numbers.

Consent Calendar

Chairman Werner asked if any Participant wished to remove any item listed on the Consent Calendar for separate discussion. Hearing none, he 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:

Motion: The PPC approves the 2-10-2014 Consent Calendar consisting of agenda items 6, 7, 8, 9, 10, and 11.

Moved by: MID
Seconded by: SVP

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	Yes	25.7500%
Ukiah	Absent	1.7857%

Vote Summary		
Total Ayes	10	95.7858%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	3	4.2142%
Results:	Motion passed by quorum and GES share.	

12. Standard Large Generator Interconnection Agreement Upgrade Project with CAISO.

Mike DeBortoli reported that the Phase I study results are in regarding the potential 24MW capacity upgrade to LEC. The study shows that the 8-Mile Line will become overloaded and recommends reconductoring the existing line. Mike presented summer line ratings information from 8-Mile to Gold Hill which project the new summer normal ratings at 605 MW. This expected rating clearly exceeds the summer normal ratings and should remove the congestion. Mike said it is about a distance of two miles from 8-Mile to LEC. There are four projects which are affected by the circuit; LEC is determined to be 70% of the impact. The project costs are estimated at \$6,592,000 but may come in lower depending on the number of project participants. The project cost is reimbursable five years from the Commercial Operation Date (COD). The Interconnection facility cost is \$411,000 and is not reimbursable.

In order to commerce Phase II, payment of a security deposit in the amount of \$911,000 must be made by April 14. The Phase II study would begin May1 and be completed by November 30. Target date for the Interconnect Agreement is April 2015 with permitting and construction to take 27 months. The projected completion date is July 31, 2017. In order to proceed, a budget augmentation in the amount of \$911,000 is needed for the Phase II security deposit. Mike also discussed that by entering into the E&P agreement, work could begin during Phase II and would give PG&E an eight month advance start on the engineering and permitting process. Mike said this is a high stakes process and Phase II is structured to ensure people are committed to the Project.

The Participants raised many questions including what mechanism would be used for reimbursement of the project costs, what percentage of the vote is required for this approval, how the deposit amount of \$911,000 is calculated, how much of the \$911,000 is refundable, and what other three projects are included in the CAISO study? The committee requested project economics. MID requested that this item be brought back to the Committee at its next meeting in March in order that questions may be answered and the economic analysis be prepared.

13. Water Storage

Mike DeBortoli advised the Committee that staff is evaluating what additional water storage options are available. They are working out the economics and will prepare an economic analysis for the next meeting.

14. Drought Impacts on Water Supply

Mike DeBortoli reported there are no water conservation measures in effect in the City of Lodi. He said LEC has one well available and its use is limited to two weeks. He noted LEC is restricted by its CEC permit as to where it gets water. As part of the Amended and Restated Ground Lease executed with the City of Lodi about a year ago, LEC's water is included in the

lease terms and LEC has priority for water. Mike said he has more overall concerns about getting water from the waste water plant than lack of water due to drought conditions.

15. Proposed Budget for Fiscal Year 2015

Mike DeBortoli presented an initial FY15 draft budget for discussion. Some items he noted were the increase in cost of auxiliary power with the gas true-up numbers; an escalation factor applied to the LTSA costs since they were based on 2010 dollars resulting in an approximate \$80,000 impact; DCS antivirus support and security services is added at \$115,000 cost; and labor increase is projected at 1.8% due to the need to add two additional operators. He noted that having the additional reliefs available will drastically reduce overtime costs. In response to questions from Marty Hostler, Mike said the 2014 budget (based on actual numbers through December) is on track to spend \$7.6 million in FY14. Mike went over FY15 projects including PI performance modules, essential services, spare parts storage, platforms, maintenance reserve, and the VOM impact. Lloyd Rowe asked questions about how the starts based maintenance costs will be reflected in the budget. Mike said an economic analysis will be prepared for the next meeting. It was also noted that a look at the VOM schedule is needed for possible amendment. Ken Speer said the FY15 budget will be brought back at the next meeting for approval.

16. Other New Business

None.

Adjournment

The next meeting of the PPC is scheduled for Monday, March 10, 2014. Chairman Mike Werner adjourned the meeting at 11:50 a.m.



12745 N. Thornton Road
Lodi, CA 95242

phone (209) 333-6370
fax (209) 333-6374
web www.ncpa.com

Lodi Energy Center Project Participant Committee Operational Report

Date: 3/10/2014

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 Control Card Failure** – 2/26/2014 20:58 to 2/26/2014 23:58 (3hrs) –Gas compressor B failed due a PLC I/O card failure causing LEC to trip. LEC Operations swapped to gas compressor A and returned LEC back to service.

Planned Outage Summaries:

- 2014, April – Combustion Turbine Borescope
- 2014, April – Steam Turbine Minor Inspection
- 2015, April – Combustion Inspection

Generating Unit Statistics:**Report****Date:**

Start Date 2/1/2014

End Date 3/1/2014

1. Monthly Production 156,078 MWH

2. Productivity Factor

a. Service Hours 581 Hours

b. Service Factor 86.46 %

c. Capacity Factor @ 280MW Pmax 82.95 %

d. Capacity Factor @ 302MW Pmax 76.91 %

3. Equivalent Operating Availability (EOA) 99.55 %

4. Forced Outage Rate (FOR)

a. Combustion Turbine Generator 0.51 %

b. Steam Turbine Generator 0.51 %

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	6,919	6850	1.01%	7,415	\$2,051
Seg. 2	284 - 296	6,946	6870	1.10%	103,273	\$31,263
Seg. 3	275 - 284	6,959	6971	-0.17%	9,327	-\$433
Seg. 4	250 - 275	6,995	7081	-1.21%	15,327	-\$5,265
Seg. 5	225 - 250	7,052	7130	-1.09%	6,438	-\$2,004
Seg. 6	200 - 225	7,155	7315	-2.18%	4,944	-\$3,155
Seg. 7	175 - 225	7,316	7711	-5.13%	3,282	-\$5,191
Seg. 8	165 - 175	7,723	0	0.00%	4,805	\$148,439
					154,812	\$165,704

6. AGC Control Deviation

MW Range		High Dev	Low Dev	Absolute Dev	Cost
		MWH	MWH	MWH	\$
Seg. 1	296 - 302	10	10	0	\$13
Seg. 2	284 - 296	219	6	213	\$5,918
Seg. 3	275 - 284	22	-13	35	\$983
Seg. 4	250 - 275	48	-10	58	\$1,622
Seg. 5	225 - 250	30	-14	44	\$1,251
Seg. 6	200 - 225	23	-10	33	\$937
Seg. 7	175 - 225	14	-8	22	\$645
Seg. 8	165 - 175	10	4	5	\$160
		376	-35	411	\$11,529

7. Starting Reliability

Start Type	Hot Starts	Warm Starts	Cold Starts
Number of Starts	11	1	0
Start Time Benchmark (Minutes)	85	160	235
Start Time Actual (Average Minute)	58.5	69.0	235.0
Start Time Deviation (%)	-31.1%	-56.9%	0.0%
Start Fuel Benchmark PMOA (mmBTU)	1,967	5,200	5,430
Start Fuel Actual (Average mmBTU)	1,056	1,320	5,430
Fuel Deviation	-46.3%	-74.6%	0.0%
Costs of Fuel Deviations (\$)	-\$3,644	-\$15,521	\$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 Operating Availability = $(AH - EPDH - EFDH - EUDH) / PH \times 100\%$
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 = $(Actual\ Fuel\ Consumed - Expected\ Fuel) \times Cost\ of\ Fuel$

	July	August	September	October	November	December	January (Actual)	January (Estimate)	January (Diff)	January Estimate vs Actual (Diff %)	February	March	April	May	June	Year End Projection	FY2014 Budget	Percent Used	Comments
VOM	4,510,911	3,441,771	3,527,417	3,559,665	3,829,061	5,841,427	5,859,348	5,453,147	406,201	7%	3,320,355	4,629,938	2,234,881	3,773,424	4,127,189	48,655,388	48,980,350	99.3%	
Capacity Factor	59%	45%	46%	47%	52%	67%	66%	72%	-7%	-9%	65%	46%	16%	12%	34%	46%	64%		
Fuel Consumed (mmBTU, estimated)	879,771	674,758	658,848	688,301	742,102	968,742	956,882	1,038,457	-81,575	-8%	842,138	736,737	358,775	645,796	690,691	8,843,542	9,349,196	94.6%	RAC Outage
Avg Fuel Cost (\$/mmBTU)	4.26	4.21	4.43	4.44	4.32	5.22	5.32	4.65	1	14%	4.67	4.68	4.78	4.80	4.92	4.67	4.38		
Power Produced (MWhr, estimated)	122,486	94,610	92,090	98,738	105,077	138,065	136,604	150,501	-13,897	-9%	122,049	106,773	51,996	93,594	100,100	1,262,182	1,354,956	93.2%	
Avg Power Price (\$/MWhr)	46.91	42.48	46.99	41.03	42.09	54.14	48.14	39.42	9	22%	40.51	52.00	52.00	50.00	50.00	47.19	53.60		
Operations	43,003	96,234	127,333	26,495	108,825	124,300	95,063	108,395	-13,332	-12%	108,395	108,395	108,395	108,395	108,395	1,163,227	1,300,738	89.4%	
Fuel (estimated)	3,752,183	2,838,640	2,921,836	3,055,256	3,208,112	5,061,023	5,085,936	4,673,095	412,841	9%	2,658,939	4,081,522	1,951,738	3,513,129	3,688,288	41,816,604	41,500,588	100.8%	
AB32 GHG Offset (estimated)	665,425	470,249	440,345	439,427	466,509	601,037	622,287	627,591	-5,304	-1%	508,955	395,955	130,682	107,833	286,439	5,135,143	5,650,224	90.9%	
CA ISO Charges (estimated)	50,300	36,648	37,902	38,488	45,615	55,066	56,062	44,067	11,995	27%	44,067	44,067	44,067	44,067	44,067	540,414	528,800	102.2%	
Routine O&M (Fixed)	825,352	705,626	781,796	836,116	1,541,610	1,660,100	1,459,604	1,356,024	103,580	8%	787,524	1,400,024	787,524	986,961	1,400,024	13,172,259	12,360,283	106.6%	
Maintenance	122,856	103,896	138,361	205,464	804,406	282,058	856,754	721,063	135,691	19%	108,563	721,063	108,563	308,000	721,063	4,481,047	3,752,752	119.4%	L TSA Escalation & Outages
Administration	176,051	14,591	100,092	101,797	96,024	100,085	99,312	101,221	-1,909	-2%	101,221	101,221	101,221	101,221	101,221	1,194,059	1,214,657	98.3%	
Mandatory Costs	54,223	33,816	75,781	40,651	44,151	27,705	32,310	38,000	-5,690	-15%	38,000	38,000	38,000	38,000	38,000	498,637	456,000	109.4%	
Inventory Stock	0	0	0	0	0	14,393	40,196	25,000	15,196	61%	69,000	69,000	69,000	69,000	69,000	399,589	400,000	99.9%	
Labor	362,071	347,160	363,503	379,492	492,969	347,638	322,319	352,258	-29,939	-8%	352,258	352,258	352,258	352,258	352,258	4,376,443	4,227,098	103.5%	
Insurance	110,151	206,163	104,059	108,712	104,060	888,221	108,713	118,481	-9,768	-8%	118,481	118,481	118,481	118,481	118,481	2,222,484	2,309,776	96.2%	
Power Management & Settlements																			
Other Costs																			
Projects	33,104	33,104	33,105	33,104	82,515	48,100	34,184	92,938	-58,754	-63%	92,938	92,938	92,938	92,938	92,938	761,904	1,115,250	68.3%	
Maintenance Reserve	33,104	33,104	33,105	33,104	33,104	33,104	33,104	33,104	0	0%	33,104	33,104	33,104	33,104	33,104	397,250	397,250	100.0%	
Operations & Maintenance Projects	0	0	0	0	0	14,996	1,080	14,000	-12,920	-92%	14,000	14,000	14,000	14,000	14,000	135,487	168,000	80.6%	
Capital Projects	0	0	0	0	0	0	0	45,833	-45,833	-100%	45,833	45,833	45,833	45,833	45,833	229,167	550,000	41.7%	
A&G	93,845	93,845	143,178	116,185	146,921	144,534	111,394	188,459	-77,065	-41%	188,459	188,459	188,459	188,459	188,459	1,903,591	2,261,509	84.2%	
Administrative & General (Allocated)	76,204	76,204	110,033	93,660	119,853	120,763	88,473	145,900	-57,427	-39%	145,900	145,900	145,900	145,900	145,900	1,414,689	1,750,798	80.8%	
Generation Services Shared	17,641	17,641	33,145	22,525	27,068	23,771	22,921	42,559	-19,638	-46%	42,559	42,559	42,559	42,559	42,559	377,508	510,711	73.9%	
Total O&M Cost	5,463,212	4,274,346	4,485,496	4,545,070	5,600,107	7,694,161	7,464,530	7,090,568	373,962	5%	4,389,276	6,311,358	3,303,801	5,041,781	5,808,609	64,493,141	64,717,392	99.7%	
Debt Service	2,211,514	2,211,516	2,211,511	2,211,516	1,652,233	2,211,513	2,211,514	2,163,002	48,512	2%	2,163,002	2,163,002	2,163,002	2,163,002	2,163,002	25,736,329	25,956,029	99.2%	
Revenues	5,746,023	4,019,075	4,330,249	4,051,388	4,422,375	7,475,000	7,354,210	4,750,045	2,604,165	55%	4,878,665	5,520,187	2,688,216	4,632,883	4,954,955	60,073,225	69,914,564	85.9%	
ISO Energy Sales (estimated)	5,746,023	4,019,075	4,327,698	4,051,388	4,422,375	7,475,000	6,575,721	4,750,045	1,825,676	38%	4,878,665	5,520,187	2,688,216	4,632,883	4,954,955	59,292,185	67,624,524		Energy Prices Up
Other Income	0	0	2,551	0	0	0	778,489	0	778,489	#DIV/0!	0	0	0	0	0	781,040	0		ERC Sales
Net	(\$1,928,703)	(\$2,466,787)	(\$2,366,758)	(\$2,705,199)	(\$2,829,966)	(\$2,430,674)	(\$2,321,834)	(\$4,503,525)	\$2,181,691	-48%	(\$1,673,613)	(\$2,954,174)	(\$2,778,588)	(\$2,571,900)	(\$3,016,656)	(\$30,156,245)	(\$20,758,857)		



651 Commerce Drive
Roseville, CA 95678

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

LEC Treasurer's Report

AGENDA ITEM NO.: _____

Date: March 5, 2014

To: LEC Project Participant Committee

Subject: Treasurer's Report for the Month Ended February 28, 2013

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

Cash - At month end cash totaled \$0.

The cash balance held at U.S. Bank includes outstanding checks that have not yet cleared.

Investments - The carrying value of the LEC's investment portfolio totaled \$33,660,509 at month end. The current market value of the portfolio totaled \$33,667,737.

The overall portfolio had a combined weighted average interest rate of 0.295% with a bond equivalent yield (yield to maturity) of 0.247%. Investments with a maturity greater than one year totaled \$11,368,000. February maturities totaled \$3 million and during the month \$5 million was invested.

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

Interest Rates - During the month, rates on 90 day T-Bills increased 1 basis points (from 0.04% to 0.05%) and rates on one year T-Bills increased 2 basis points (from 0.11% to 0.12%).

To the best of my knowledge and belief, all securities held by LEC as of March 10, 2014, are in compliance with the Agency's investment policy. There are adequate cash flow and investment maturities to meet next month's cash requirements.

Environmental Analysis

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

Respectfully submitted,

DONNA STEVENER
Assistant General Manager/CFO
Administrative Services/Finance

Prepared by:

KEVIN W. WALLACE
Treasurer-Controller

Attachments

LODI ENERGY CENTER

TREASURER'S REPORT

FEBRUARY 28, 2014

TABLE OF CONTENTS

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

Northern California Power Agency/Lodi Energy Center
Treasurer's Report
Cash & Investment Balance
February 28, 2014

	CASH	INVESTMENTS	TOTAL	PERCENT	INVESTMENTS at MARKET
MANDATORY FUNDS					
Construction Revolving	\$ -	\$ 243,215	\$ 243,215	0.723%	\$ 243,215
Debt Service Account	-	10,989,982	10,989,982	32.649%	10,990,837
Debt Service Reserve	-	11,735,949	11,735,949	34.866%	11,735,030
O & M Reserve	-	10,626,167	10,626,167	31.569%	10,633,460
	-	33,595,313	33,595,313	99.806%	33,602,542
ADDITIONAL PROJECT FUNDS					
GHG Cash Account	-	65,195	65,195	0.194%	65,195
	<u>\$ -</u>	<u>\$ 33,660,509</u>	<u>\$ 33,660,509</u>	<u>100.000%</u>	<u>\$ 33,667,737</u>

NOTE A -Investment amounts shown at book carrying value.

Northern California Power Agency/Lodi Energy Center
Treasurer's Report
Cash Activity Summary
February 28, 2014

	RECEIPTS			EXPENDITURES			CASH
	OPS/CONSTR	INTEREST (NOTE B)	INVESTMENTS (NOTE A)	OPS/CONSTR	INVESTMENTS (NOTE B)	INTER-COMPANY/ FUND TRANSFERS	INCREASE / (DECREASE)
MANDATORY FUNDS							
Construction Revolving	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service Account	-	9	122	-	(2,211,648)	2,211,517	-
Debt Service Reserve	-	86	-	-	(86)	-	-
O & M Reserve	-	(9,126)	3,001,000	-	(2,991,874)	-	-
	-	(9,031)	3,001,122	-	(5,203,608)	2,211,517	-
ADDITIONAL PROJECT FUNDS							
GHG Cash Account	-	-	-	-	-	-	-
TOTAL	\$ -	\$ (9,031)	\$ 3,001,122	\$ -	\$ (5,203,608)	\$ 2,211,517	\$ -

NOTE A -Investment amounts shown at book carrying value.

NOTE B -Net of accrued interest purchased on investments.

Northern California Power Agency/Lodi Energy Center
Treasurer's Report
Investment Activity Summary
February 28, 2014

	PURCHASED	SOLD OR MATURED	(NON-CASH) DISC/(PREM) AMORT	(NON-CASH) GAIN/(LOSS) ON SALE	INVESTMENTS	
					TRANSFERS	INCREASE / (DECREASE)
MANDATORY FUNDS						
Construction Revolving		\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service Account	2,211,648	(122)	475	-	-	2,212,001
Debt Service Reserve	86			-		86
O & M Reserve	2,991,874	(3,001,000)	141	-		(8,985)
	<u>5,203,608</u>	<u>(3,001,122)</u>	<u>616</u>	<u>-</u>	<u>-</u>	<u>2,203,102</u>
ADDITIONAL PROJECT FUNDS						
GHG Cash Account	-		-	-		-
TOTAL	<u>\$ 5,203,608</u>	<u>\$ (3,001,122)</u>	<u>\$ 616</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,203,102</u>

Less Non- Cash Activity

Disc/(Prem) Amortization & Gain/(Loss) on Sale

(616)

Net Change in Investment --Before Non-Cash Activity

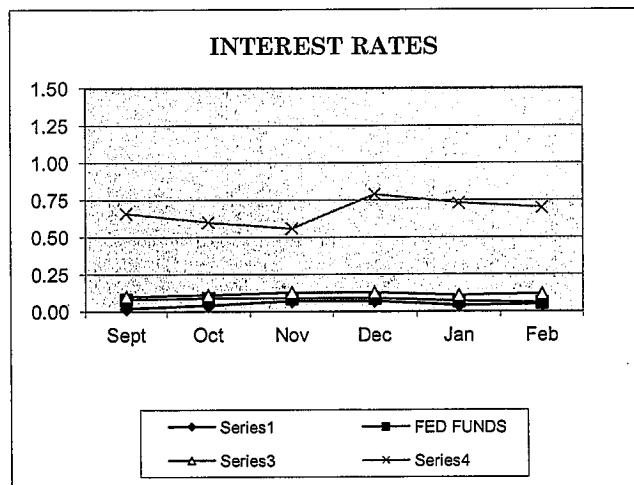
\$ 2,202,486

NOTE A -Investment amounts shown at book carrying value.

**NORTHERN CALIFORNIA POWER AGENCY
LODI ENERGY CENTER
INTEREST RATE/YIELD ANALYSIS
FEBRUARY 28, 2014**

	WEIGHTED AVERAGE INTEREST RATE	BOND EQUIVALENT YIELD
OVERALL COMBINED	<u>0.295%</u>	<u>0.247%</u>
<u>Construction Revolving Acct</u>	0.254%	0.254%
<u>Funds:</u>		
Debt Service Account	0.061%	0.062%
Debt Service Reserve	0.399%	0.399%
O & M Reserve	0.424%	0.271%
GHG Cash Account	0.254%	0.254%

KEY INTEREST RATES		
	CURRENT	PRIOR YEAR
Fed Fds (Ovrnight)	0.06%	0.15%
T-Bills (90da.)	0.05%	0.12%
Agency Disc (90da.)	0.03%	0.10%
T-Bills (1yr.)	0.12%	0.17%
Agency Disc (1yr.)	0.12%	0.17%
T-Notes (3yr.)	0.70%	0.36%



Lodi Energy Center
Total Portfolio
Investment Maturities Analysis
February 28, 2014

Type	0-7 Days	8-90 Days	91-180 Days	181-270 Days	271-360 Days	1-5 Years	5-10 Years	Total	Percent
US Government Agencies		\$4,468	\$9,524	\$3,612	\$0	\$11,368	\$0	\$28,972	86.07%
US Bank Trust Money Market	3,371							3,371	10.01%
Investment Trusts (LAIF)	1,317							1,317	3.91%
U.S.Treasury Market Acct. *	0							0	0.00%
U.S.Treasury Bill								0	0.00%
Certificates of Deposit		0						0	0.00%
Total Dollars	\$4,688	\$4,468	\$9,524	\$3,612	\$0	\$11,368	\$0	\$33,660	100.00%
Total Percents	13.93%	13.27%	28.29%	10.73%	0.00%	33.77%	0.00%	100.00%	

Investment are shown at Face Value, in thousands.

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

** Cash held by Union Bank of California is invested nightly in fully collateralized U.S. Treasury Securities.

NORTHERN CALIFORNIA POWER AGENCY

Detail Report Of Investments

APPENDIX

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



Northern California Power Agency
Treasurer's Report
02/28/2014

LEC Construction Revolving

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		243,215	0.254	08/06/2012	243,215		1	0.254	243,215	SYS70040	70040	243,215
Fund Total and Average		\$ 243,215	0.254		\$ 243,215		1	0.254	\$ 243,215			\$ 243,215
GRAND TOTALS:		\$ 243,215	0.254		\$ 243,215		1	0.254	\$ 243,215.			\$ 243,215

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

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 02/28/2014



Northern California Power Agency
Treasurer's Report
02/28/2014

LEC Issue#1 2010A DS Fund

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
US Bank Trust	USB	951	0.100		951		1	0.100	951	SYS79003	79003	951
Federal Home Loan Ba	USB	693,000	0.029	02/25/2014	692,950	05/23/2014	83	0.030	692,951	313385XD3	26103	692,952
Federal Home Loan Mt	USB	1,387,000	0.090	10/25/2013	1,386,248	05/30/2014	90	0.091	1,386,903	313397XL0	26057	1,386,688
Federal Home Loan Ba	USB	952,000	0.085	12/03/2013	951,593	06/02/2014	93	0.086	951,924	313385XP6	26071	951,791
Federal Home Loan Ba	USB	693,000	0.059	01/06/2014	692,830	06/02/2014	93	0.060	692,945	313385XP6	26076	692,893
Federal Home Loan Ba	USB	693,000	0.040	01/27/2014	692,903	06/02/2014	93	0.040	692,945	313385XP6	26090	692,928
Fund Total and Average		\$ 4,418,951	0.067		\$ 4,417,475		90	0.068	\$ 4,418,619			\$ 4,418,203

LEC Issue #1 2010B DS Fund

US Bank Trust	USB	550	0.100		550		1	0.100	550	SYS79004	79004	550
Federal Home Loan Ba	USB	732,000	0.029	02/25/2014	731,947	05/23/2014	83	0.030	731,949	313385XD3	26104	731,949
Federal Home Loan Ba	USB	766,000	0.060	01/06/2014	765,812	06/02/2014	93	0.060	765,939	313385XP6	26077	765,881
Federal Home Loan Ba	USB	733,000	0.040	01/27/2014	732,897	06/02/2014	93	0.040	732,941	313385XP6	26091	732,924
Fund Total and Average		\$ 2,231,550	0.044		\$ 2,231,206		90	0.044	\$ 2,231,379			\$ 2,231,304

LEC Issue #2 2010A DS Fund

US Bank Trust	USB	856	0.100		856		1	0.100	856	SYS79011	79011	856
Federal Home Loan Ba	USB	434,000	0.029	02/25/2014	433,969	05/23/2014	83	0.030	433,970	313385XD3	26105	433,970
Federal Home Loan Mt	USB	870,000	0.089	10/25/2013	869,528	05/30/2014	90	0.091	869,939	313397XL0	26058	869,804
Federal Home Loan Ba	USB	1,095,000	0.085	12/03/2013	1,094,532	06/02/2014	93	0.086	1,094,912	313385XP6	26072	1,094,760
Federal Home Loan Ba	USB	435,000	0.059	01/06/2014	434,893	06/02/2014	93	0.060	434,965	313385XP6	26078	434,933
Federal Home Loan Ba	USB	434,000	0.040	01/27/2014	433,939	06/02/2014	93	0.040	433,965	313385XP6	26092	433,955
Fund Total and Average		\$ 3,268,856	0.070		\$ 3,267,717		91	0.071	\$ 3,268,607			\$ 3,268,278

LEC Issue #2 2010B DS Fund

US Bank Trust	USB	314	0.100		314		1	0.100	314	SYS79012	79012	314
Federal Home Loan Ba	USB	352,000	0.029	02/25/2014	351,974	05/23/2014	83	0.030	351,975	313385XD3	26106	351,976
Federal Home Loan Ba	USB	368,000	0.060	01/06/2014	367,910	06/02/2014	93	0.060	367,971	313385XP6	26079	367,943
Federal Home Loan Ba	USB	352,000	0.040	01/27/2014	351,951	06/02/2014	93	0.040	351,972	313385XP6	26093	351,964
Fund Total and Average		\$ 1,072,314	0.044		\$ 1,072,149		90	0.044	\$ 1,072,232			\$ 1,072,197

GRAND TOTALS:	\$	10,991,671	0.061	\$	10,988,547	90	0.062	\$	10,990,837.	\$	10,989,982
---------------	----	------------	-------	----	------------	----	-------	----	-------------	----	------------

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

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 02/28/2014



Northern California Power Agency
Treasurer's Report
02/28/2014

LEC Issue #1 2010 DSR Fund

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
US Bank Trust	USB	21,524	0.100		21,524		1	0.100	21,524	SYS79005	79005	21,524
Federal National Mtg	USB	8,368,000	0.520	05/30/2013	8,368,000	05/27/2016	818	0.520	8,367,080	3135G0XU2	26020	8,368,000
Fund Total and Average		\$ 8,389,524	0.519		\$ 8,389,524		816	0.519	\$ 8,388,604			\$ 8,389,524

LEC Iss#1 2010B BABS Subs Resv

US Bank Trust	USB	2,260,298	0.100	07/01/2012	2,260,298		1	0.100	2,260,298	SYS79006	79006	2,260,298
Fund Total and Average		\$ 2,260,298	0.100		\$ 2,260,298		1	0.100	\$ 2,260,298			\$ 2,260,298

LEC Issue #1 2010 COI Acct

US Bank Trust	USB	2	0.100		2		1	0.100	2	SYS79008	79008	2
Fund Total and Average		\$ 2	0.100		\$ 2		1	0.100	\$ 2			\$ 2

LEC Issue #2 2010B DSR BABS

US Bank Trust	USB	1,086,126	0.100		1,086,126		1	0.100	1,086,126	SYS79013	79013	1,086,126
Fund Total and Average		\$ 1,086,126	0.100		\$ 1,086,126		1	0.100	\$ 1,086,126			\$ 1,086,126
GRAND TOTALS:		\$ 11,735,950	0.399		\$ 11,735,950		584	0.399	\$ 11,735,030.			\$ 11,735,950

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

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 02/28/2014

Investment # 26020 - FNMA Structured Note .52% thru 11/27/13; Callable anytime



Northern California Power Agency
Treasurer's Report
02/28/2014

LEC O & M Reserve

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		1,008,703	0.254	06/30/2013	1,008,703		1	0.254	1,008,703	SYS70047	70047	1,008,703
Union Bank of Califo	UBOC	0	0.002	07/18/2013	0		1	0.002	0	SYS70041	70041	0
Federal National Mtg	UBOC	3,003,000	0.140	07/18/2013	2,999,006	06/25/2014	116	0.142	3,002,700	313589YN7	26028	3,001,645
Federal Home Loan Mt	UBOC	2,980,000	0.750	02/19/2014	2,991,264	09/22/2014	205	0.110	2,990,251	3134G2WG3	26099	2,990,630
Federal Home Loan Mt	UBOC	632,000	0.140	10/31/2013	631,127	10/21/2014	234	0.142	631,716	313397L41	26066	631,425
Federal Home Loan Mt	UBOC	3,000,000	0.500	10/25/2013	2,992,800	06/06/2016	828	0.592	3,000,090	3134G46A1	26052	2,993,764
Fund Total and Average		\$ 10,623,703	0.424		\$ 10,622,900		338	0.271	\$ 10,633,460			\$ 10,626,167
GRAND TOTALS:		\$ 10,623,703	0.424		\$ 10,622,900		338	0.271	\$ 10,633,460.			\$ 10,626,167

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

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 02/28/2014

Investment # 26052 - FHLMC Structured Note .50%; Callable on 03/06/14 Quarterly thereafter.



Northern California Power Agency
Treasurer's Report
02/28/2014

LEC GHG Auction Acct

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		65,195	0.254	10/19/2012	65,195		1	0.254	65,195	SYS70046	70046	65,195
Fund Total and Average		\$ 65,195	0.254		\$ 65,195		1	0.254	\$ 65,195			\$ 65,195
GRAND TOTALS:		\$ 65,195	0.254		\$ 65,195		1	0.254	\$ 65,195.			\$ 65,195

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

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 02/28/2014



651 Commerce Drive
Roseville, CA 95678

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

LEC Financial Reports

AGENDA ITEM NO.: _____

Date: March 5, 2014

Subject: February 28, 2014 Financial Reports (Unaudited)

**NORTHERN CALIFORNIA POWER AGENCY
LODI ENERGY CENTER
STATEMENT OF NET POSITION
UNAUDITED**

ASSETS	February 28	
	2014	2013 (Note A)
CURRENT ASSETS		
Cash and cash equivalents	\$ 65,195	\$ 28,717
Interest receivable	2,418	488
Supplies inventory	1,045,368	230,459
Prepaid insurance	781,761	583,127
Due from (to) Agency, net	21,543,768	9,477,332
TOTAL CURRENT ASSETS	23,438,510	10,320,123
RESTRICTED ASSETS		
Cash and cash equivalents	243,215	3,402,869
Investments	33,360,514	34,988,909
Interest receivable	9,680	27,144
TOTAL RESTRICTED ASSETS	33,613,409	38,418,922
ELECTRIC PLANT		
Electric plant in service	423,354,890	428,023,812
Less: accumulated depreciation	(17,051,633)	
TOTAL ELECTRIC PLANT	406,303,257	428,023,812
OTHER ASSETS		
Regulatory assets	9,649,670	
Unamortized debt issuance expenses	3,513,558	3,601,601
TOTAL OTHER ASSETS	13,163,228	3,601,601
TOTAL ASSETS	\$ 476,518,404	\$ 480,364,458

Note A:

Commercial operation began November 27, 2012. Prior to commercial operation, all costs of construction, test start-up and financing were capitalized.

**NORTHERN CALIFORNIA POWER AGENCY
LODI ENERGY CENTER
STATEMENT OF NET POSITION
UNAUDITED**

	February 28	
	2014	2013 (Note A)
LIABILITIES & NET POSITION		
CURRENT LIABILITIES		
Accounts and retentions payable	\$ 8,628,397	\$ 2,490,908
Operating reserves	11,263,167	
Current portion of long-term debt	8,640,000	
Accrued interest payable	4,453,146	6,206,905
TOTAL CURRENT LIABILITIES	32,984,710	8,697,813
NON-CURRENT LIABILITIES		
Other deposits	65,099	1,762,304
Regulatory liability	44,964,392	50,815,751
Long-term debt, net	382,207,242	400,310,115
TOTAL NON-CURRENT LIABILITIES	427,236,733	452,888,170
TOTAL LIABILITIES	460,221,443	461,585,983
NET POSITION		
Invested in capital assets, net of related debt	(6,647,789)	(6,479,169)
Restricted	19,397,804	17,428,429
Unrestricted	3,546,946	7,829,215
TOTAL NET POSITION	16,296,961	18,778,475
TOTAL LIABILITIES AND NET POSITION	\$ 476,518,404	\$ 480,364,458

Note A:

Commercial operation began November 27, 2012. Prior to commercial operation, all costs of construction, test start-up and financing were capitalized.

**NORTHERN CALIFORNIA POWER AGENCY
LODI ENERGY CENTER
STATEMENT OF REVENUES, EXPENSES
& CHANGES IN NET POSITION
UNAUDITED**

	Eight Months Ended February 28	
	2014	2013 (Note A)
SALES FOR RESALE		
Participants	\$ 24,912,546	\$ 27,352,980
Other	46,994,880	11,591,475
TOTAL SALES FOR RESALE	71,907,426	38,944,455
OPERATING EXPENSES		
Intercompany (sales) purchases	286,248	-
Transmission	882,085	625,912
Operations	34,700,680	9,689,933
Depreciation	8,515,759	
Administrative and general	3,604,336	657,373
Maintenance expenses	5,593,259	2,056,974
TOTAL OPERATING EXPENSES	53,582,367	13,030,192
NET OPERATING REVENUES	18,325,059	25,914,263
OTHER REVENUES (EXPENSES)		
Interest expense	(10,622,983)	(12,019,004)
Interest income	50,377	115,853
Capitalized Interest	-	6,257,259
Amortizations	(50,839)	
Other	1,439,992	198,141
TOTAL OTHER REVENUES (EXPENSES)	(9,183,453)	(5,447,751)
FUTURE RECOVERABLE/(REFUNDABLE) AMOUNTS	2,861,955	(1,688,037)
REFUNDS TO PARTICIPANTS	(1,185,594)	
INCREASE IN NET POSITION	10,817,967	18,778,475
NET POSITION		
Beginning of year	5,478,994	
End of period	\$ 16,296,961	\$ 18,778,475
	-	-

Note A:

Commercial operation began November 27, 2012. Prior to commercial operation, all costs of construction, test start-up and financing were capitalized.

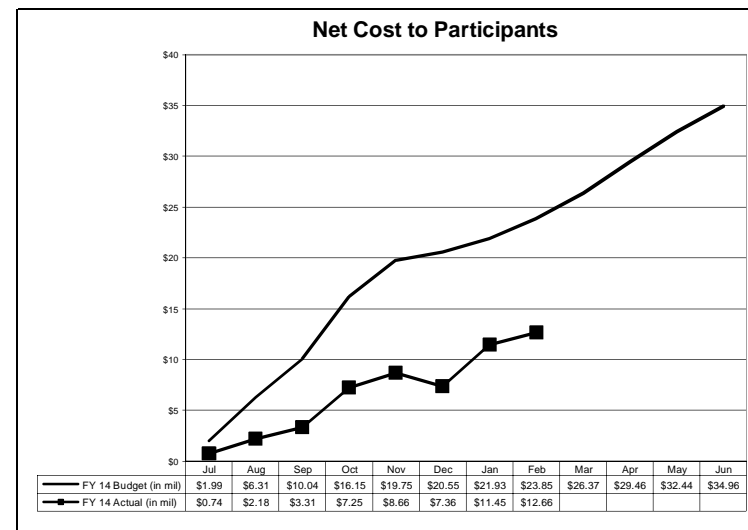
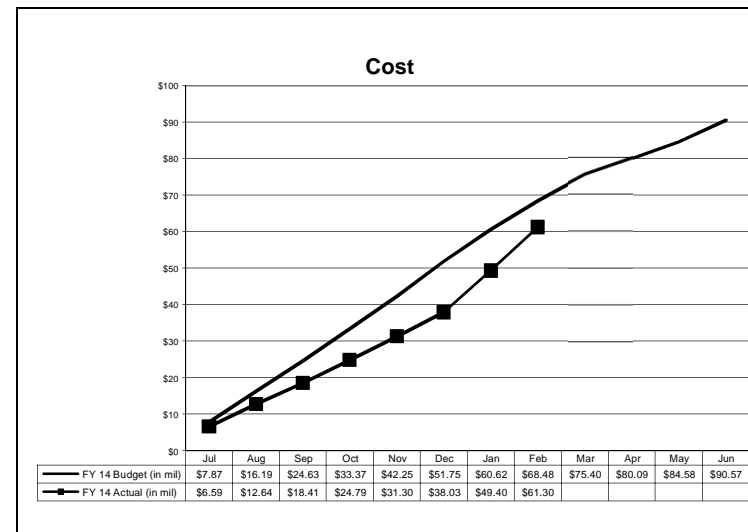
**Lodi Energy Center
FY 2014 Operating Costs
As of February 28, 2014**

	Annual Budget	Actual	Remaining	YTD % Remaining	Notes
Routine O&M Costs					
Operations	\$ 1,300,738	\$ 747,395	\$ 553,343	43%	B
Maintenance	3,752,752	2,638,693	1,114,059	30%	
Administration	1,214,657	797,670	416,987	34%	
Mandatory Costs	456,000	361,238	94,762	21%	
Inventory Stock	400,000	54,588	345,412	86%	
Routine O&M Costs without Labor	7,124,147	4,599,584	2,524,563	35%	
Labor	4,227,098	2,877,155	1,349,943	32%	
Total Routine O&M Cost	11,351,245	7,476,739	3,874,506	34%	
Other Costs					
Fuel	41,400,588	32,876,378	8,524,210	21%	E
AB32 GHG Offset	5,650,224	-	5,650,224	100%	
CA ISO Charges	528,800	882,085	(353,285)	-67%	C
Debt Service	25,956,029	17,132,832	8,823,197	34%	D
Other Costs	2,309,776	1,643,037	666,739	29%	F
Administrative & General (Allocated)	1,750,798	773,189	977,609	56%	
Generation Services Shared	510,711	187,711	323,000	63%	
Maintenance Reserve	397,250	264,833	132,417	33%	
Total O&M Cost	89,855,421	61,236,804	28,618,617	32%	
Projects					
Operations & Maintenance	168,000	67,094	100,906	60%	
Capital	550,000	-	550,000	100%	
Total Capital Budget	718,000	67,094	650,906	91%	
Annual Cost	90,573,421	61,303,898	29,269,523	32%	
Less: Third Party Revenue					
Interest Income	73,258	17,662	55,596	76%	A
ISO Energy Sales	53,249,904	45,958,416	7,291,488	14%	
Ancillary Services Sales	2,290,040	1,036,464	1,253,576	55%	
Transfer Gas Credit	-	854,729	(854,729)	N/A	
ERCS Sale	-	781,621	(781,621)	N/A	
	55,613,202	48,648,892	6,964,310	13%	G
Net Annual Cost to Participants	\$ 34,960,219	\$ 12,655,006	\$ 22,305,213	64%	

Net Cumulative Generation (MWh)	1,354,957	943,780
Total O&M Cost Per MWh	\$ 66.32	\$ 64.88
Net Annual Cost Per MWh	\$ 25.80	\$ 13.41

Footnotes:

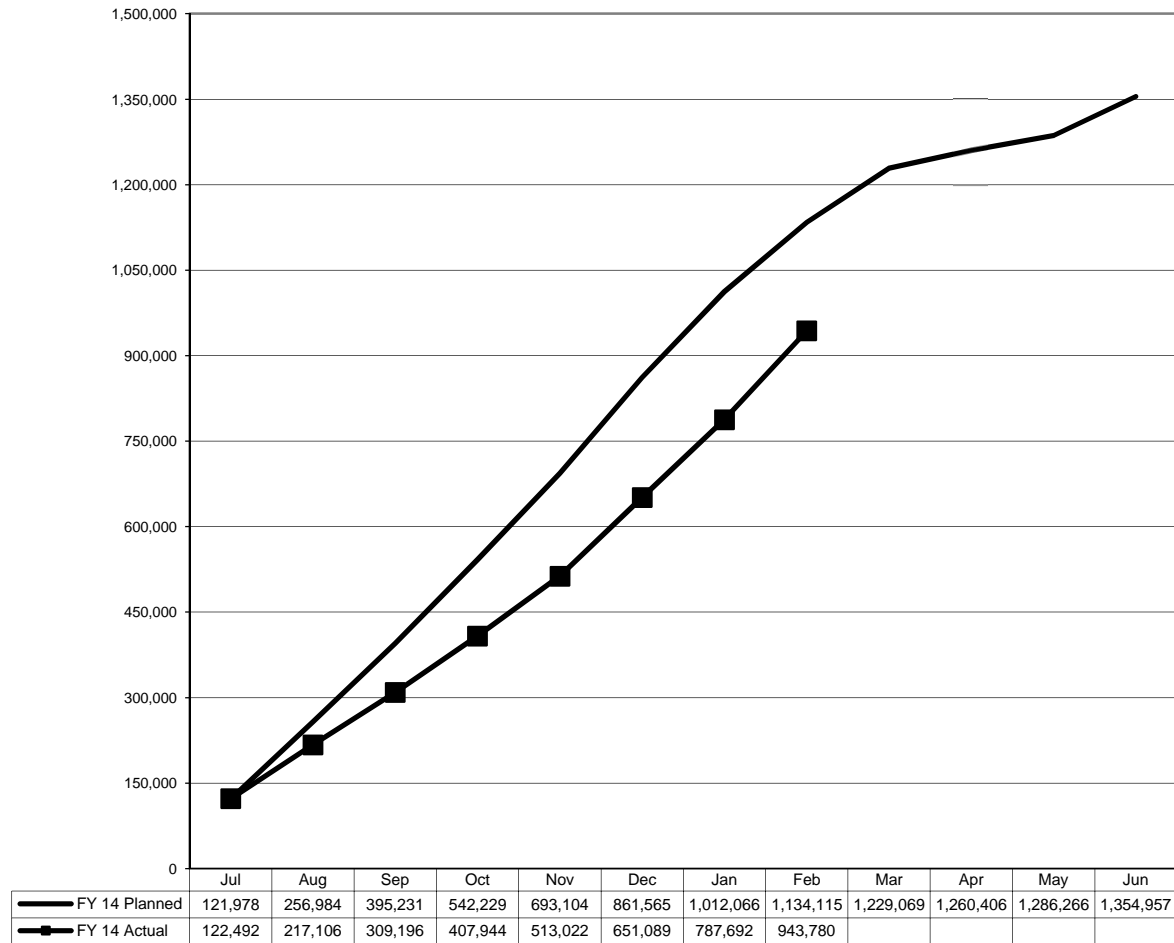
- A** - Represents credits to participants who delivered gas to the project. These credits were not budgeted for FY 2014.
- B** - Payments for hazardous waste fee and air resources board fee. Costs are expected to normalize during the year.
- C** - The project did not purchase any GHG Allowances as participants have delivered sufficient allowances through January 31, 2014.
- D** - CA ISO Charges are greater than anticipated primarily due to unplanned Regulation Energy and Resource Adequacy Standard Capacity charges.
- E** - Fuel costs are higher than anticipated due to increasing natural gas prices per mMBTU during the year.
- F** - Other Costs are high for the period primarily due to payment of the annual insurance premium. Costs are expected to levelize during the year.
- G** - Proceeds from the Sale of ERCS



Annual Budget LEC Generation Analysis Planned vs. Actual FY 2014

In MWh

Lodi Energy Center



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

IDENTIFIER	Actual													Compliance Year 2013
	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	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053
Monthly MT Emissions (MT)	0	31,455	38,321	47,417	50,484	12,175	30,721	46,128	35,720	34,463	36,697	39,114	51,160	453,856
Cumulative MT Obligation (MT)	0	31,455	69,776	117,193	167,677	179,852	210,573	256,701	292,421	326,884	363,581	402,696	453,856	453,856
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)	(113,590)	(75,269)	(41,496)	(96,012)	(134,469)	(134,376)	(89,848)	(156,328)	(134,459)	(97,762)	(58,647)	(53,777)	(53,777)

2013 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report	2014 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center																
	Actual				Estimated								Compliance Year 2014 Total	Cumulative Totals Total			
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER			Charge Code	Source	
Energy (MWh)	136,604	95,651	106,773	103,992	103,992	100,100	122,492	94,615	92,091	98,739	73,883	76,346	1,205,277	2,416,221		Forecast/Meter	
Gas Schedule (MMBtu)	951,700	669,555	747,410	727,946	727,946	700,697	857,444	662,305	644,637	691,173	517,181	534,420	8,432,414	16,995,738		Forecast/Meter	
Emissions Factor (MT/MMBtu)	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053				MARS	
Monthly MT Emissions (MT)	50,440	35,486	39,613	38,581	38,581	37,137	45,445	35,102	34,166	36,632	27,411	28,324	446,918	900,774		derived	
Cumulative MT Obligation (MT)	504,296	539,783	579,395	617,977	656,558	693,695	739,139	774,241	808,407	845,039	872,450	900,774		900,774		derived	
Compliance Instrument Participant Transfers (to LEC)																	
Auction Allowances	102,347	50,000	0	0	0	0	0	0	0	0	0	0	152,347	612,980		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	0	0	0	0	0	0	0	0	0	0	152,347	612,980			
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	0	0	0	0	0	0	0	0	0	0	152,347	659,980		derived	
Cumulative MT Account Balance [MTA] (MT)	609,980	659,980	659,980	659,980	659,980	659,980	659,980	659,980	659,980	659,980	659,980	659,980		659,980		derived	
MTA Shortfall (MT)	(105,684)	(120,197)	(80,585)	(42,003)	(3,422)	33,715	79,159	114,261	148,427	185,059	212,470	240,794		240,794	MTA SHORTFALL	derived	

NCPA All Resources Bill LEC GHG Obligation Detail Report (Cumulative) March 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)	16,140	38,240	1,552	180,827	11,381	9,518	55,043	11,795	62,078	4,552	15,458	149,194	10,346	566,125		derived
Current MT Compliance Instrument Account (MTA) Balance (MT)	15,000	46,200	1,739	250,000	12,547	9,120	54,978	14,500	70,000	4,800	18,097	190,000	10,500	697,481		derived
MTA Shortfall (MT)	1,140	(7,960)	(187)	(69,173)	(1,166)	398	65	(2,706)	(7,922)	(248)	(2,639)	(40,806)	(154)	(131,356)	MTA SHORTFALL	Derived
Monthly GHG Price \$/MT	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	MTA SHORTFALL	ICE Index
GHG Minimum Cash Compliance Obligation (\$)	13,683	0	0	0	0	4,780	775	0	0	0	0	0	0	19,237	MTA SHORTFALL	Derived
Current Month CCA Balance (\$)*	60,991	0	143	0	1,103	0	0	0	0	0	0	0	2,652	64,889	CCA BALANCE	Accounting
Net GHG Obligation (\$)	0	0	0	0	0	4,780	775	0	0	0	0	0	0	5,554	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.: 10

Date: March 6, 2014
To: Lodi Energy Center Project Participant Committee
Subject: Generation Facilities - SBIW, Inc. Five (5) Year Multi-Task General Services Agreement

Proposal

Approve a Multi-Task General Services Agreement with SBIW, Inc. not-to-exceed one million dollars (\$1,000,000) over a five-year period for general in-situ and offsite maintenance services at all NCPA facilities.

Background

Maintenance of turbine/generator units and auxiliary equipment services are needed at the Generation Services facilities in order to comply with regulatory requirements and to maintain the reliability of the facilities. NCPA has previously used this vendor for a variety of projects, including rebuilding five (5) Collierville needle jets over the last three (3) years. The proposed agreement would supersede and replace a \$350,000 agreement approved and executed in 2012. NCPA has agreements in place with other contractors that provide some similar services, including Andritz, Wood Group, Siemens, TurboCare, and others. NCPA also routinely includes other contractors, with whom we do not have a pre-existing agreement, on bid solicitations. NCPA will issue purchase orders based on cost and availability of the service(s) needed at the time.

Fiscal Impact

Total cost of the agreement is not-to-exceed one million dollars (\$1,000,000) 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 SBIW, Inc. with any non-substantial changes recommended and approved by the NCPA General Counsel which shall not exceed \$1,000,000 over five years.

SBIW, Inc.
March 6, 2014
Page Two

Prepared by:

KEN SPEER
Assistant General Manager
Generation Services

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



**MULTI-TASK
GENERAL SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
SBIW, 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 SBIW, Inc., a corporation with its office located at 7936 Lakemont Place, San Ramon, CA 94582 ("Contractor") (together sometimes referred to as the "Parties") as of [REDACTED], 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** one million dollars (\$1,000,000) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

2.1 Invoices. Contractor shall submit invoices, 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.

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. In the event

such damage or injury is caused by the joint or concurrent negligence of the Agency and Contractor, the loss shall be borne by each party in proportion to its negligence. 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, 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, 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:

Serge Bouchard, President
SBIW, Inc.
7936 Lakemont Place
San Ramon, CA 94582
925-415-0842
sbouchard@sbiw.com

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

SBIW, INC.

Date _____

Date _____

JAMES H. POPE, General Manager

SERGE BOUCHARD, President

Attest:

Assistant Secretary of the Commission
Approved as to Form:

Ruthann G. Ziegler, Assistant General Counsel

EXHIBIT A

SCOPE OF WORK

SBIW, Inc. ("Contractor") shall provide the following services to the NORTHERN CALIFORNIA POWER AGENCY ("Agency") at any one of its facilities:

- Offsite and onsite (in-situ) maintenance of turbine/generator units and auxiliary equipment;
- Materials and parts fabrication and/or supply;
- Shop and in-place machining;
- Needle jet nozzle rehabilitation;
- Turbine generator maintenance and refurbishment.

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all work, including hourly fees and expenses, shall not exceed one million dollars (\$1,000,000). The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

See attached rate sheet

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.

CUSTOMER RATE SHEET
CALAVERAS COUNTY PREVAILING WAGE
(Mountain Ranch, CA area)

	Straight Time	Overtime	Double Time
Project Manager ⁽²⁾	\$ 168.00	—	—
Field Engineer ⁽²⁾	\$ 138.00	—	—

Shop Millwright ⁽¹⁾	\$ 104.30	\$ 127.95	\$ 151.65
Shop Machinist ⁽¹⁾	\$ 104.30	\$ 127.95	\$ 151.65
Shop Millwright - Welder ⁽¹⁾	\$ 104.30	\$ 127.95	\$ 151.65

Site Foreman ⁽¹⁾	\$ 133.05	\$ 162.85	\$ 192.60
Site Millwright - Journeyman ⁽¹⁾	\$ 129.30	\$ 157.55	\$ 185.75
Site Machinist ⁽¹⁾	\$ 131.20	\$ 160.20	\$ 189.15
Site Millwright - Welder ⁽¹⁾	\$ 131.20	\$ 160.20	\$ 189.15

CONSUMABLES / MATERIALS / SPECIAL TOOLING / FREIGHT
SUBCONTRACTOR / BUY OUT SERVICES:

Cost + 15%
Cost + 15%

TRAVEL EXPENSES:

CRAFT LABOR ⁽³⁾
PROJECT MANAGER, FIELD ENGINEER ⁽³⁾

Included Per Labor Agreement
Cost + 10%

SUBSISTENCE:

CRAFT LABOR ⁽³⁾
PROJECT MANAGER, FIELD ENGINEER ⁽³⁾

Included Per Labor Agreement
Cost + 10%

TRAVEL TIME:

CRAFT LABOR ⁽³⁾
PROJECT MANAGER, FIELD ENGINEER ⁽³⁾

Included Per Labor Agreement
Straight time

LODGING EXPENSES:

PROJECT MANAGER, FIELD ENGINEER ⁽³⁾

Cost + 10%

MILEAGE EXPENSES:

CAR
PICKUP TRUCK

\$ 0.55/mile
\$ 1.00/mile

Notes:

- Labor rate includes wages, fringes, insurance, payroll taxes, overhead, other direct and indirect costs and profit.
- Wage rates, travel and subsistence are determined by the prevailing wage determination pursuant to the CA Labor Code part 7, chapter 1, article 2, sections 1770, 1773, and 1773.1.

Rates valid until June 30, 2015

Page 1 of 1

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.

2244366.2

CAISO 24 MW Upgrade

NCPA-Lodi / 8 Mile Reconductor

Project Description

- Upgrade PG&E Interconnection Facilities at 8-Mile and at NCPA
- Upgrade NCPA's Switchyard
- Reconductor 2.3 mile line to 795 ACSS from 1113 AAC

Interconnection Queue

- 4 total projects affecting circuit
- 945-LEC (assigned 70% of impact)
- 962-15.5 MW Hydro, Placer County, Halsey
- 972-20 MW Solar, Kern County
Midway/Tremblor 115kV Line
- 992-20 MW Solar, Sutter County-E Nicolas Sub

Project Costs

Charge	Cost	Status	
PG&E Interconnection Facilities	\$411,000	Not-refundable	
PG&E Reconductor	\$6,592,000	Network Upgrade, Reimbursible	Cost before sharing
NCPA Switchyard Upgrade	\$530,000	Possibly shared with other projects	
Contingency (15%)	\$1,054,950	Above numbers are Unit Cost Based	
Total	\$8,587,950		

NCPA Upgrades

- Reason for Upgrades
 - New Line is 604 MW
- Air Disconnect Switches under-rated
- Current Transformer Ratios too low

Financial Model-Assumptions

- Total Project Cost \$8,587,950 over 3 years
 - Not based on engineering study, subject to change
- Average Annual Capacity Increase 10.4 MW
- Capacity Value \$31.80 / kW-Yr
- Network Reimbursement starts Year 4 and lasts 5 Years. No interest assumed
- No Benefit for Congestion Modeled

Financial Model-Results

AFE Financial Measurements	Value	Units
NPV @ Discount Rate	2,831,308	\$
IRR	9.0%	%
Average Annual Benefits	367,633	\$
Payback	7.0	Years
Useful Life	30.0	Years
B/C Ratio	1.35	B/C Ratio

Cancellation

- Cancellation is discussed in CAISO Large Generator Interconnect, Appendix DD, section 11.4 and is the lesser of:
- the Interconnection Financial Security plus (any other provided security plus any separately provided capital) less (all costs and expenses incurred or irrevocably committed to finance Pre-Construction Activities for Network Upgrades on behalf of the Interconnection Customer), or
- the Interconnection Financial Security plus (any other provided security plus any separately provided capital) minus the lesser of fifty (50) percent of the value of the posted Interconnection Financial Security for Network Upgrades or \$20,000 per requested and approved megawatt of the Generating Facility Capacity at the time of withdrawal.

Recommendation

- Staff recommends the PPC approve augmentation of the LEC Budget for FY14 in the amount of \$911,000 for funds necessary to remit the deposit amount to CAISO by April 14, 2014 and enter into Phase 2 of the Large Generator Interconnection Agreement Study Process.

What-If

- Project Relieves Congestion?

AFE Financial Measurements	Value
NPV @ Discount Rate	58,487,801
IRR	38.5%
Average Annual Benefits	2,222,849
Payback	4.0
Useful Life	30.0
B/C Ratio	8.13

Authority for Expenditure

AFE No.:		(Assigned by Accounting after all approvals are obtained)
Original or Supplement:		(Original or Supplemental AFE? If Supplement, indicate 1st, 2nd, etc.)
AFE Type:		(Capital or Expense?)
Company, and Location:		
Project Title:		
Project Description:		
Summary of Benefits:		

Mandatory? (Check as appropriate):	Discretionary? (Check as appropriate):
<input type="checkbox"/> Maintain existing level of operations	<input type="checkbox"/> Efficiency and/or cost reduction
<input type="checkbox"/> Protect property from theft, damage	<input type="checkbox"/> Expand existing business
<input type="checkbox"/> Comply with legal requirements	<input type="checkbox"/> Conduct experiments/research
<input type="checkbox"/> Improve substandard or unsafe conditions	<u>Unbudgeted</u>

AFE Amount (expenditure requested in this AFE for approval):		
AFEs previously approved for this project:	\$ -	
Total amount:	\$ -	

EXPENDITURE SCHEDULE (total project, i.e. original AFEs plus any supplements)

Year	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total	Budget	Variance
2007					-	-	-
					-	-	-
	-				-	-	-
Total:	-	-	-	-	-	-	-

FINANCIAL EVALUATION SUMMARY

Useful Life (Years):	30.00
IRR:	9%
Payback (years):	7.0
NPV @ 5%:	2,831,308
Est. Annual Benefits:	367,633

OTHER INFORMATION

Initial Commitment Date:	
Est. Completion Date:	

APPROVED BY	SIGNATURES	DATE	COMMENTS, IF ANY
Preparer of AFE:			
Plant Manager			
Manager Engr, Gen Srvc			
CFO Accounting			
AGM Generation			
GM - NCPA			
Commision Approval			

Accounting -- Assignment of AFE Number (after above approvals are obtained):

Accounting Supervisor:			AFE No. Assigned:	
------------------------	--	--	-------------------	--

Revision 0 - New

Financial Analysis for Generation Services projects exceeding \$25,000.

Example 1: Capital Cost = \$100,000, Financed = 50%, Cost of Money @ 5%, O&M =\$1000/yr, O&M increase rate = 3%, Savings = \$7,500 escalating at 2%, Life of Project 30 years.

Common Inputs:	Value	Units	Comments
Project Capital Cost	0	\$	Negative
Amount Financed	50.0%	%	Applicable for the analysis, even if not borrowed.
Finance Life	30	Years	Term of Loan
Cost of Money	5%	%	Finance Rate. Currently assume 5%.
Project Life	30	Years	Useful life of Project
NCPA Discount Rate	5%	%	Investment Rate. Currently assume 5%.
O&M	0	\$/Year	Negative
O&M Increase Rate in %	3.0%	% per Year	Currently Assume 3%
Revenue stream	0	\$/Year	Positive
Benefits escalation in %	2.0%	% per Year	Currently Assume 2%
Annualized Payment Output:	0	\$	Annualized payment used in the following cash flow "P&I Repayment" Row. Based on Financial Life, Capital Cost, Amount Financed, and Cost of f

	Summary of Cash Flows (PV @ Discount Rate)	Cash Flow											
		Beginning Year 1	Ending Year 1	Ending Year 2	Ending Year 3	Ending Year 4	Ending Year 5	Ending Year 6	Ending Year 7	Ending Year 8	Ending Year 9	Ending Year 10	Ending Year 11
Capital Cost													
Interconnect Facilities Cost	(411,000)	(411,000)	0	0	0	0	0	0	0	0	0	0	0
Network Upgrade Costs	(6,301,905)	(500,000)	(6,092,000)	0	0	0	0	0	0	0	0	0	0
Curent Transformers	(136,054)	0	0	(150,000)	0	0	0	0	0	0	0	0	0
Air Disconnects	(299,320)	0	0	(330,000)	0	0	0	0	0	0	0	0	0
Engineering	(45,351)	0	0	(50,000)	0	0	0	0	0	0	0	0	0
Total Cost	(7,193,630)	(911,000)	(6,092,000)	(530,000)	0	0	0	0	0	0	0	0	0
Expenses													
Contingency	(1,004,045)	(61,650)	(913,800)	(79,500)	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Expenses	(1,004,045)	(61,650)	(913,800)	(79,500)	0	0	0	0	0	0	0	0	0
Benefits													
Capacity (\$31.80 / kW-Yr)	5,414,697	330,720	330,720	330,720	330,720	330,720	330,720	330,720	330,720	330,720	330,720	330,720	330,720
Congestion Savings	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Network Upgrade Reimbursement	5,614,285	0	0	0	0	1,501,160	1,501,160	1,501,160	1,501,160	1,501,160	0	0	0
Total Benefits	11,028,982		330,720	330,720	330,720	1,831,880	1,831,880	1,831,880	1,831,880	1,831,880	330,720	330,720	330,720
Net Cash Flow	2,500,588	(972,650)	(6,675,080)	(278,780)	330,720	1,831,880	1,831,880	1,831,880	1,831,880	1,831,880	330,720	330,720	330,720

Cumulative Cash Flow	-	(7,647,730)	(7,926,510)	(7,595,790)	(5,763,910)	(3,932,030)	(2,100,150)	(268,270)	1,563,610	1,894,330	2,225,050	2,555,770
----------------------	---	-------------	-------------	-------------	-------------	-------------	-------------	-----------	-----------	-----------	-----------	-----------

The following table summarizes the financial measurements required in the AFE. These values are automatically copied to the AFE.

AFE Financial Measurements	Value	Units	Comments
NPV @ Discount Rate	2,831,308	\$	Total PV Cost + Total PV Expense + PV Total Benefits. =C25+C30+C35
IRR	9.0%	%	Discount rate that results in a net present value of zero of a series of cash flows =IRR(E37:AI37)
Average Annual Benefits	367,633	\$	Average Yearly Benefits. = C42/C11
Payback	7.0	Years	Number of Years of Negative Accumulative Cash Flow. =COUNTIF(F39:AI39,"<0")
Useful Life	30.0	Years	Useful Life of Project =C10
B/C Ratio	1.35	B/C Ratio	Benefit to Cost Ratio =C38/(C26+C32)

Money

2,886,490	3,217,210	3,547,930	3,878,650	4,209,370	4,540,090	4,870,810	5,201,530	5,532,250	5,862,970	6,193,690	6,524,410	6,855,130	7,185,850	7,516,570	7,847,290	8,178,010	8,508,730	8,839,450
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

[illegible]

Jan	55	301
Feb	62	299
Mar	68	295
Apr	74	290
May	81	287
Jun	88	283
Jul	92	280
Aug	91	281
Sep	88	283
Oct	78	288
Nov	65	297
Dec	55	301

290.4167

2015 Proposed Budget

March 6, 2014

Proposed Budget

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Routine O & M Costs			
Variable	\$3,588,987	\$3,651,332	\$62,345
Fixed	1,464,503	1,765,358	300,855
Administration	1,214,657	1,250,914	36,257
Mandatory Costs	456,000	220,000	(236,000)
Inventory Stock	400,000	400,000	0
Routine O & M Costs without Labor	7,124,147	7,287,604	163,457
Labor	4,227,098	4,299,182	72,084
Total Routine O & M Costs	11,351,245	11,586,786	235,541
Other Plant Costs			
Fuel	41,400,588	41,167,130	(233,458)
AB32 GHG Offset	5,650,224	0	(5,650,224)
CA ISO Charges (variable)	528,800	489,050	(39,750)
Debt Service	25,956,029	26,437,890	481,861
Insurance	997,500	1,000,425	2,925
Other Costs	63,558	51,781	(11,777)
Generation Services Shared	510,711	437,453	(73,258)
Administrative & General	1,750,798	1,728,654	(22,144)
Power Management Allocated Costs	1,248,718	1,187,916	(60,802)
Total O & M Costs	89,458,171	84,087,085	(5,371,086)
Projects			
Operations & Maintenance	168,000	332,500	164,500
Capital	550,000	150,000	(400,000)
Maintenance Reserve	397,250	1,800,000	1,402,750
Total Projects Budget	1,115,250	2,282,500	1,167,250
Annual Budget Cost	90,573,421	86,369,585	(4,203,836)
Less: Third Party Revenue			
ISO Energy Sales	53,249,904	55,808,145	2,558,241
Ancillary Services Sales	2,290,040	1,420,431	(869,609)
Interest Income - Operations	9,330	5,950	(3,380)
Interest Income (NCPA)	49,216	32,667	(16,549)
Interest Income (CDWR)	14,712	5,872	(8,840)
	55,613,202	57,273,065	1,659,863
Net Annual Budget Cost To Participants	\$34,960,219	\$29,096,520	(\$5,863,699)
Total Variable Costs	\$51,168,599	\$45,307,512	(\$5,861,087)
Total Fixed Costs	39,404,822	41,062,073	1,657,251
	\$90,573,421	\$86,369,585	(\$4,203,836)

Does Not Include
CAISO Upgrade

Proposed Budget

	FY 2013 Projected Actuals	FY 2013 Approved Budget	FY14 Projected Actuals	FY 2014 Approved Budget	Increase (decrease)	FY 2015 Proposed Budget	Aux Power, DCS, LTSA
Routine O & M Costs							
Operations	2,954,914	5,497,585	3688227	3,588,987	62,345	3,651,332	
Maintenance	2,488,491	1,116,891	1956047	1,464,503	300,855	1,765,358	
Administration	1,144,203	207,340	1,194,059	1,214,657	36,257	1,250,914	
Mandatory Costs	483,903	456,000	498,637	456,000	-236,000	220,000	
Inventory Stock	395,073	400,000	399,589	400,000	0	400,000	
Routine O & M Costs without Labor	7,466,585	7,677,816	7736559	7,124,147	163,457	7,287,604	
Labor	5,413,841	4,046,379	4,376,443	4,227,098	70,295	4,299,182	
Projects	26,743	261,626	1,115,250	1,115,250	1,167,250	2,282,500	
Total Routine O & M Costs	12,907,169	11,985,821	13,228,252	12,466,494	1,401,003	13,867,497	Starts Based Maintenance

****DOES NOT INCLUDE CAISO PROJECT****

LEC 2015 Projects

Plant Betterment	125,000	Water & Air at clarifier, HRSG Pass through, Manual isolations on Aux Gas
PI Performance Modules	80,000	
Essential Services	75,000	
Spare Parts Storage (Shared Projects)	52,500	
Platforms	150,000	

	FY 2015 Proposed Budget	FY 2016 Forecast	FY 2017 Forecast	FY 2018 Forecast	FY 2019 Forecast	FY 2020 Forecast	FY 2021 Forecast	FY 2022 Forecast	FY 2023 and Beyond Forecast
Project									
Capital Projects									
Platforms (20 platforms)	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 50,000		
CT Maintenance Access		\$ 200,000							
Steam Turbine Access				\$ 150,000					
Cooling Tower Pump Down						\$ 100,000			
Air Filter Puffer System									\$ 500,000
Gas Turbine Insulation									\$ 250,000
DCS Software Upgrades								\$ 200,000	
BOP PLC Upgrades		\$ 30,000						\$ 125,000	
iRig-B time stamping			\$ 30,000						
HVAC								\$ 40,000	
Vehicles			\$ 5,000		\$ 5,000		\$ 5,000		
230kV Line to Lodi			Evaluating Project						
Capacity Upgrade	\$ 8,587,950								
Total Capital Projects Funding Requirement	\$ 150,000	\$ 380,000	\$ 185,000	\$ 300,000	\$ 155,000	\$ 250,000	\$ 55,000	\$ 365,000	\$ 750,000

PI Performance Modules

- What: Calculations built into PI historian to correct plant performance back to ISO conditions for improved tracking of equipment efficiency.
- How: Integrates seamlessly into existing PI and Sharepoint Systems
- Alternatives: Continue monitoring As-Is or Develop In-House

Alternative 1 was evaluated based on heat rate sensitivity and the benefit to maintain the lowest heat rate possible should it rise. Assumptions include a 10 year projected life, realizing a .1% heat rate recovery starting three years as of today. Since the plant is new, the current heat rate is a starting basis. Gas fuel cost, Yearly production, LEC Variable costs, and LEC margin use the CERA 2015 average values through 10 years.

AFE Financial Measurements	Value	Units
NPV @ Discount Rate	55,196	\$
IRR	14.0%	%
Average Annual Benefits	16,144	\$
Payback	5.0	Years
Useful Life	10.0	Years
B/C Ratio	1.52	B/C Ratio

Essential Services

- What: Essential services is the back-up power supply that powers important equipment (turning gear, gates, lights, receptacles) when back-feed power outages occur.
- How: Relocate important circuits to the Essential Services MCC. Requires engineering of MCC and protection and new cable pulls.
- Alternatives: Purchase back-up generators to plug in or Do Nothing

Alternative 1 and alternative 3 were evaluated to provide the financial justification of this project. Assumptions include: 2 Days lost to set-up and take down of cables at an opportunity cost of \$15,647 per day using the April 2015 CERA Price Forecast over a 30 year life.

AFE Financial Measurements	Value	Units
NPV @ Discount Rate	163,533	\$
IRR	14.3%	%
Average Annual Benefits	10,100	\$
Payback	8.0	Years
Useful Life	30.0	Years
B/C Ratio	2.17	B/C Ratio

Spare Parts Storage

- What: Provide a clean, dry location to store parts.
- Benefits: Protect equipment to ensure it is ready for use when needed.
- \$75,000 Project Shared Project



March 6, 2014

Platforms

- What: Provide platforms to access frequently used equipment.
- Benefits: The project is for the protection of personnel. Currently using scaffold. This solution is not acceptable for permanent installation.
- Alternatives: None.



March 6, 2014



Maintenance Reserve

Funding/(Expenditures) Beginning Reserve Balance	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Combustion Turbine	-	-	120,000	3,940,000	100,000	100,000	320,000	3,850,000	100,000	100,000	210,000	500,000
			CI	HGP	BoreScope	BoreScope	CI, SP	HGP	BoreScope	BoreScope	CI, SP	Major
Steam Turbine	-	-	-	-	95,000	-	-	-	-	20,000	-	500,000
					Limited					Servos		Major
Generators	-	-	-	-	500,000	-	-	-	-	1,000,000	-	-
					Medium					Major		
Balance of Plant	-	-	-	190,000	300,000	305,000	-	95,000	95,000	415,000	200,000	535,000
				HV, IW	Valves	Pumps		IW	HV	Valves, SRV	Pumps	CTW, Bat, FGC
HRSG	-	-	-	40,000	-	40,000	-	40,000	1,000,000	40,000	-	40,000
				NDE		NDE		NDE	Catalyst	NDE		NDE
Projected Requirements	-	-	120,000	4,170,000	995,000	445,000	320,000	3,985,000	1,195,000	1,575,000	410,000	1,575,000
Funding Requirement	378,334	397,250	1,800,000	1,800,000	1,450,000	1,450,000	1,450,000	1,450,000	1,450,000	1,450,000	1,450,000	1,450,000
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Cumulative Balance	378,334	775,584	2,455,584	85,584	540,584	1,545,584	2,675,584	140,584	395,584	270,584	1,310,584	145,584

CI=Combustor Inspection

HGP=Hot Gas Path

SP=Starting Package

HV=High Voltage

IW=Injection Well

SRV=Safety Relief Valves

BAT=Battery

FGC=Fuel Gas Compresor

CTW=Cooling Tower

NDE=Non=Destructive Examination

VOM Impact

VOM Impact	Approved FY14 Budget	Approved FY14 VOM	Proposed FY15 Budget	Proposed FY15 VOM
Variable Cost	\$	\$/MWH	\$	\$/MWH
Operations	1,177,249	0.92	1,191,985	0.94
LTSA	2,336,748	1.72	2,409,386	1.89
Maintenance Reserve Variable Portion	397,250	0.29	277,734	0.23
Total	5,990,085	2.94	3,979,570	3.06

Forecasted Generation (MWH)	1,354,957	1,207,542
-----------------------------	-----------	-----------



Lodi Energy Center ANNUAL BUDGET

FY 2015 &
TEN-YEAR FORECAST



TABLE OF CONTENTS

Lodi Energy Center Annual Operating Budget FY 2015

➤ Allocation of Project Budget	1
➤ Cost Summary	3
➤ O&M and Capital Projects	8
➤ Maintenance Reserves	9
➤ ISO Charges	10
➤ Ancillary Services Revenue	13
➤ Shared Facilities – Gas Plants	15
➤ Generation Services	18
➤ JPA Services	19
➤ Org Chart	20
➤ Labor	21
➤ Debt Service	22
➤ Average Electric & Gas Price Forecast	35
➤ Capacity Factor	36
➤ GHG Projection	37
➤ Gas Offtake	38

LODI ENERGY CENTER
Allocation of Project Budget
FY 2015

Allocated by		Total	Azusa	BART	Biggs	CDWR	Gridley	Healdsburg	Lodi	Lompoc	MID	Plumas-Sierra	PWRPA	SVP	Ukiah
ALLOCATION PERCENTAGES:															
Generation Entitlement Share	GES	100.0000%	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%
Indenture Cost Share A	ICS A	100.0000%	4.9936%	11.8310%	0.4802%	0.0000%	3.5212%	2.9448%	17.0295%	3.6491%	0.0000%	1.4084%	4.7824%	46.1588%	3.2010%
Indenture Cost Share B	ICS B	100.0000%	0.000%	0.000%	0.000%	100.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
PROJECTED MWH		1,207,542	33,638	79,698	3,235	404,527	23,720	19,837	114,716	24,582	129,380	9,488	32,216	310,942	21,563
PROJECT COSTS:															
Fuel Cost	GES	\$ 41,167,130	\$ 1,146,793	\$ 2,717,031	\$ 110,287	\$ 13,790,989	\$ 808,646	\$ 676,294	\$ 3,910,877	\$ 838,039	\$ 4,410,770	\$ 323,450	\$ 1,098,298	\$ 10,600,536	\$ 735,121
Labor	GES	\$ 4,299,182	\$ 119,762	\$ 283,746	\$ 11,518	\$ 1,440,226	\$ 84,449	\$ 70,627	\$ 408,422	\$ 87,518	\$ 460,627	\$ 33,779	\$ 114,698	\$ 1,107,039	\$ 76,770
Variable O&M	GES	\$ 3,651,332	\$ 101,715	\$ 240,988	\$ 9,782	\$ 1,223,196	\$ 71,723	\$ 59,984	\$ 346,877	\$ 74,330	\$ 391,215	\$ 28,689	\$ 97,414	\$ 940,218	\$ 65,202
Fixed O&M	GES	\$ 1,765,358	\$ 49,178	\$ 116,514	\$ 4,729	\$ 591,395	\$ 34,677	\$ 29,001	\$ 167,709	\$ 35,937	\$ 189,146	\$ 13,870	\$ 47,098	\$ 454,580	\$ 31,524
O&M Administration	GES	\$ 1,250,914	\$ 34,847	\$ 82,560	\$ 3,351	\$ 419,056	\$ 24,572	\$ 20,550	\$ 118,837	\$ 25,465	\$ 134,027	\$ 9,828	\$ 33,373	\$ 322,110	\$ 22,338
Mandatory Costs	GES	\$ 220,000	\$ 6,129	\$ 14,520	\$ 589	\$ 73,700	\$ 4,321	\$ 3,614	\$ 20,900	\$ 4,479	\$ 23,571	\$ 1,729	\$ 5,869	\$ 56,650	\$ 3,929
Inventory Stock	GES	\$ 400,000	\$ 11,143	\$ 26,400	\$ 1,072	\$ 134,000	\$ 7,857	\$ 6,571	\$ 38,000	\$ 8,143	\$ 42,857	\$ 3,143	\$ 10,672	\$ 103,000	\$ 7,143
O&M & Capital Projects Costs	GES	\$ 2,282,500	\$ 63,584	\$ 150,645	\$ 6,115	\$ 764,638	\$ 44,835	\$ 37,497	\$ 216,838	\$ 46,465	\$ 244,554	\$ 17,934	\$ 60,895	\$ 587,744	\$ 40,759
Other Costs	GES	\$ 1,441,211	\$ 40,148	\$ 95,120	\$ 3,861	\$ 482,806	\$ 28,310	\$ 23,676	\$ 136,915	\$ 29,339	\$ 154,416	\$ 11,324	\$ 38,450	\$ 371,112	\$ 25,736
Transmission (CAISO)		\$ 489,050	\$ 13,479	\$ 31,936	\$ 1,296	\$ 162,101	\$ 9,505	\$ 7,949	\$ 45,969	\$ 9,850	\$ 51,844	\$ 3,802	\$ 18,078	\$ 124,600	\$ 8,641
Debt Service Cost:															
Indenture Group A Cost	ICS A	\$ 21,233,950	\$ 1,060,339	\$ 2,512,189	\$ 101,965	\$ -	\$ 747,690	\$ 625,297	\$ 3,616,036	\$ 774,848	\$ -	\$ 299,059	\$ 1,015,492	\$ 9,801,337	\$ 679,699
BAB's Subsidy (Group A)	ICS A	\$ (4,194,160)	\$ (209,440)	\$ (496,211)	\$ (20,140)	\$ -	\$ (147,685)	\$ (123,510)	\$ (714,244)	\$ (153,049)	\$ -	\$ (59,071)	\$ (200,582)	\$ (1,935,974)	\$ (134,255)
Debt/Trustee Fees (Group A)	ICS A	\$ 29,804	\$ 1,488	\$ 3,526	\$ 143	\$ -	\$ 1,049	\$ 878	\$ 5,075	\$ 1,088	\$ -	\$ 420	\$ 1,425	\$ 13,757	\$ 954
Indenture Group B Cost	ICS B	\$ 11,413,492	\$ -	\$ -	\$ -	\$ 11,413,492	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
BAB's Subsidy (Group B)	ICS B	\$ (2,015,392)	\$ -	\$ -	\$ -	\$ (2,015,392)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt/Trustee Fees (Group B)	ICS B	\$ 18,644	\$ -	\$ -	\$ -	\$ 18,644	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Admin & General	GES	\$ 1,728,654	\$ 48,155	\$ 114,091	\$ 4,631	\$ 579,099	\$ 33,956	\$ 28,398	\$ 164,222	\$ 35,190	\$ 185,213	\$ 13,582	\$ 46,119	\$ 445,128	\$ 30,869
Power Mgmt Allocated Costs	GES	\$ 1,187,916	\$ 33,092	\$ 78,402	\$ 3,182	\$ 397,952	\$ 23,334	\$ 19,515	\$ 112,852	\$ 24,182	\$ 127,277	\$ 9,333	\$ 31,692	\$ 305,888	\$ 21,213
Total Project Costs		\$ 86,369,585	\$ 2,520,410	\$ 5,971,457	\$ 242,381	\$ 29,475,901	\$ 1,777,240	\$ 1,486,342	\$ 8,595,284	\$ 1,841,824	\$ 6,415,516	\$ 710,870	\$ 2,418,992	\$ 23,297,725	\$ 1,615,641
Third Party Revenue															
ISO Energy Sales	GES	\$ 55,808,145	\$ 1,554,647	\$ 3,683,338	\$ 149,510	\$ 18,695,729	\$ 1,096,239	\$ 916,816	\$ 5,301,774	\$ 1,136,086	\$ 5,979,452	\$ 438,485	\$ 1,488,906	\$ 14,370,597	\$ 996,566
Ancillary Services Sales		\$ 1,420,431	\$ 39,569	\$ 93,748	\$ 3,805	\$ 475,844	\$ 27,902	\$ 23,335	\$ 134,941	\$ 28,916	\$ 152,189	\$ 11,160	\$ 37,896	\$ 365,761	\$ 25,365
Interest Income	GES	\$ 5,950	\$ 166	\$ 393	\$ 16	\$ 1,993	\$ 117	\$ 98	\$ 565	\$ 121	\$ 638	\$ 47	\$ 159	\$ 1,532	\$ 106
Interest Income (Group A)	ICS A	\$ 32,667	\$ 1,631	\$ 3,865	\$ 157	\$ -	\$ 1,150	\$ 962	\$ 5,563	\$ 1,192	\$ -	\$ 460	\$ 1,562	\$ 15,079	\$ 1,046
Interest Income (Group B)	ICS B	\$ 5,872	\$ -	\$ -	\$ -	\$ 5,872	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		\$ 57,273,065	\$ 1,596,014	\$ 3,781,343	\$ 153,488	\$ 19,179,438	\$ 1,125,409	\$ 941,211	\$ 5,442,843	\$ 1,166,316	\$ 6,132,279	\$ 450,151	\$ 1,528,523	\$ 14,752,969	\$ 1,023,083
Annual Project Costs, net		\$ 29,096,520	\$ 924,397	\$ 2,190,114	\$ 88,893	\$ 10,296,463	\$ 651,831	\$ 545,131	\$ 3,152,441	\$ 675,509	\$ 283,238	\$ 260,719	\$ 890,470	\$ 8,544,756	\$ 592,558
Estimated price per Mwh		\$ 24.10	\$ 27.48	\$ 27.48	\$ 27.48	\$ 25.45	\$ 27.48	\$ 27.48	\$ 27.48	\$ 27.48	\$ 2.19	\$ 27.48	\$ 27.64	\$ 27.48	\$ 27.48
JPA Assessment (per PMOA)		\$ 90,219	\$ 5,060	\$ -	\$ -	\$ 60,851	\$ -	\$ -	\$ -	\$ -	\$ 19,462	\$ -	\$ 4,846	\$ -	\$ -
Summary of Variable and Fixed Project Costs:															
Variable Costs		\$ 45,307,512	\$ 1,261,987	\$ 2,989,954	\$ 121,365	\$ 15,176,286	\$ 889,874	\$ 744,227	\$ 4,303,723	\$ 922,219	\$ 4,853,828	\$ 355,941	\$ 1,213,790	\$ 11,665,354	\$ 808,964
Fixed Costs		\$ 41,062,073	\$ 1,258,423	\$ 2,981,502	\$ 121,017	\$ 14,299,615	\$ 887,366	\$ 742,116	\$ 4,291,561	\$ 919,605	\$ 1,561,688	\$ 354,930	\$ 1,205,202	\$ 11,632,372	\$ 806,677
		\$ 86,369,585	\$ 2,520,410	\$ 5,971,457	\$ 242,381	\$ 29,475,901	\$ 1,777,240	\$ 1,486,342	\$ 8,595,284	\$ 1,841,824	\$ 6,415,516	\$ 710,870	\$ 2,418,992	\$ 23,297,725	\$ 1,615,641

NORTHERN CALIFORNIA POWER AGCY
Lodi Energy Center
Comparative Annual Budget Report

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Routine O & M Costs			
Variable	\$3,588,987	\$3,651,332	\$62,345
Fixed	1,464,503	1,765,358	300,855
Administration	1,214,657	1,250,914	36,257
Mandatory Costs	456,000	220,000	(236,000)
Inventory Stock	400,000	400,000	0
Routine O & M Costs without Labor	7,124,147	7,287,604	163,457
Labor	4,227,098	4,299,182	72,084
Total Routine O & M Costs	11,351,245	11,586,786	235,541
Other Plant Costs			
Fuel	41,400,588	41,167,130	(233,458)
AB32 GHG Offset	5,650,224	0	(5,650,224)
CA ISO Charges (variable)	528,800	489,050	(39,750)
Debt Service	25,956,029	26,437,890	481,861
Insurance	997,500	1,000,425	2,925
Other Costs	63,558	51,781	(11,777)
Generation Services Shared	510,711	437,453	(73,258)
Administrative & General	1,750,798	1,728,654	(22,144)
Power Management Allocated Costs	1,248,718	1,187,916	(60,802)
Total O & M Costs	89,458,171	84,087,085	(5,371,086)
Projects			
Operations & Maintenance	168,000	332,500	164,500
Capital	550,000	150,000	(400,000)
Maintenance Reserve	397,250	1,800,000	1,402,750
Total Projects Budget	1,115,250	2,282,500	1,167,250
Annual Budget Cost	90,573,421	86,369,585	(4,203,836)
Less: Third Party Revenue			
ISO Energy Sales	53,249,904	55,808,145	2,558,241
Ancillary Services Sales	2,290,040	1,420,431	(869,609)
Interest Income - Operations	9,330	5,950	(3,380)
Interest Income (NCPA)	49,216	32,667	(16,549)
Interest Income (CDWR)	14,712	5,872	(8,840)
	55,613,202	57,273,065	1,659,863
Net Annual Budget Cost To Participants	\$34,960,219	\$29,096,520	(\$5,863,699)
Total Variable Costs	\$51,168,599	\$45,307,512	(\$5,861,087)
Total Fixed Costs	39,404,822	41,062,073	1,657,251
	<u>\$90,573,421</u>	<u>\$86,369,585</u>	<u>(\$4,203,836)</u>
Net Annual Generation (MWh)	1,354,957	1,207,542	(147,415)
Annual Budget Costs per MWh	\$67	\$72	\$5
Variable Costs per MWh	\$38	\$38	\$0
Fixed Costs per KW Month	\$12	\$12	\$0

NORTHERN CALIFORNIA POWER AGCY
Lodi Energy Center
Comparative Annual Budget Report

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Variable O&M Costs			
Outside Services -			
Siemens LTSA	\$2,336,748	\$2,409,386	\$72,638
Other -			
Ammonia (SCR)	\$150,000	\$101,985	(\$48,015)
Emissions Chemicals/Gases	26,250	19,122	(7,128)
Water Treatment Waste Disposal	63,750	305,954	242,204
Raw Water Treatment System	777,978	0	(777,978)
Demin and Evap Cooler Water Systems	18,841	0	(18,841)
Cooling Tower Treatment	114,000	0	(114,000)
Cooling Tower Blow Down Treatment	26,420	0	(26,420)
Dry Chemicals	0	216,717	216,717
Bulk Chemicals	0	280,458	280,458
Specialty Chemicals	0	127,481	127,481
Laboratory and Testing	0	140,229	140,229
GT Inlet Air Filters	75,000	50,000	(25,000)
Subtotal	<u>1,252,239</u>	<u>1,241,946</u>	<u>(10,293)</u>
Total Variable O&M	<u><u>\$3,588,987</u></u>	<u><u>\$3,651,332</u></u>	<u><u>\$62,345</u></u>

NORTHERN CALIFORNIA POWER AGCY
Lodi Energy Center
Comparative Annual Budget Report

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Fixed O&M Costs			
Outside Services -			
Legal	10,000	40,000	30,000
Engineering	50,000	50,000	0
Electrical/Substation Maintenance	30,000	0	(30,000)
Insulation Maintenance	50,000	30,000	(20,000)
Temporary Labor	30,000	15,000	(15,000)
Buildings and Grounds	20,600	20,000	(600)
Consultants	25,600	50,000	24,400
Corrosion Control	5,150	5,000	(150)
CEMS Support Contact	10,000	10,000	0
Fire Protection	5,150	30,000	24,850
Plant Information Services	0	30,000	30,000
Siemens LTSA	110,000	110,000	0
DCS Support	0	115,000	115,000
Predictive Maintenance	0	50,000	50,000
Subtotal	346,500	555,000	208,500
Other -			
Equipment Rental	70,000	25,000	(45,000)
Safety Equipment	30,900	15,000	(15,900)
Lubricants	10,000	15,000	5,000
Consumables	75,000	50,000	(25,000)
HRSG/Boilers	77,250	77,250	0
Gas Turbine	70,000	70,000	0
Steam Turbine	51,500	51,500	0
Generator	61,800	61,800	0
Misc Maintenance Mat. & Sup.	150,000	200,000	50,000
Water Treatment	150,000	100,000	(50,000)
Liquidated Gas Turbines Shared Facilities - Maintenance	185,593	174,808	(10,785)
Auxiliary Power Usage	135,960	370,000	234,040
Painting of Structures	50,000	0	(50,000)
Subtotal	1,118,003	1,210,358	92,355
Total Fixed O&M	<u>\$1,464,503</u>	<u>\$1,765,358</u>	<u>\$300,855</u>

NORTHERN CALIFORNIA POWER AGCY
Lodi Energy Center
Comparative Annual Budget Report

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Administration			
Outside Services -			
Janitorial	\$5,000	\$0	(\$5,000)
Other -			
Travel & Staff Development	0	30,750	30,750
Ground Lease	1,000,000	1,000,000	0
Liquidated Gas Turbines Shared Facilities - Administration	209,657	220,164	10,507
Subtotal	1,209,657	1,250,914	41,257
Total Administration	\$1,214,657	\$1,250,914	\$36,257
Mandatory Costs			
Air Permit Fee	\$60,000	\$45,000	(\$15,000)
Hazardous Waste Disposal	240,000	25,000	(215,000)
Regulatory Permit Services	51,000	50,000	(1,000)
Title V Permit Fee	105,000	100,000	(5,000)
	\$456,000	\$220,000	(\$236,000)
Inventory			
Critical Gas Turbine Spares	\$100,000	\$100,000	\$0
Critical Spare Parts	300,000	300,000	0
	\$400,000	\$400,000	\$0
Labor			
Generation	\$4,222,616	\$3,305,474	(\$917,142)
Maintenance	0	993,708	993,708
Power Management	4,482	0	(4,482)
	\$4,227,098	\$4,299,182	\$72,084
Debt Service			
Issue #1 (NCPA) -			
Principal	\$4,690,833	\$4,885,417	\$194,584
Interest	16,540,220	16,348,533	(191,687)
BABS Interest Subsidy	(4,519,569)	(4,194,160)	325,409
	16,711,484	17,039,790	328,306
Issue #2 (CDWR) -			
Principal	3,981,250	4,177,500	196,250
Interest	7,435,054	7,235,992	(199,062)
BABS Interest Subsidy	(2,171,759)	(2,015,392)	156,367
	9,244,545	9,398,100	153,555
	\$25,956,029	\$26,437,890	\$481,861

NORTHERN CALIFORNIA POWER AGCY
Lodi Energy Center
Comparative Annual Budget Report

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Other Costs			
Debt Fees	\$35,888	\$37,448	\$1,560
Trustee Fees	16,000	11,000	(5,000)
NERC Compliance	11,670	3,333	(8,337)
	<u>\$63,558</u>	<u>\$51,781</u>	<u>(\$11,777)</u>
Generation Services Shared			
Salaries & Benefits	375,564	314,600	(60,964)
Other Costs	135,147	122,853	(12,294)
	<u>510,711</u>	<u>437,453</u>	<u>(73,258)</u>
Administrative & General			
Administrative Support	\$1,240,436	\$1,239,763	(\$673)
General Support	510,362	488,891	(21,471)
	<u>\$1,750,798</u>	<u>\$1,728,654</u>	<u>(\$22,144)</u>
O&M Projects			
Plant Betterment	\$125,000	\$125,000	\$0
Gas Comp Oil Pump	13,000	0	(13,000)
PI Performance Modules	0	80,000	80,000
Electrical Circuits Relocation	0	75,000	75,000
Inventory Parts Storage	0	52,500	52,500
HRSG/Boiler Overhauls	30,000	0	(30,000)
	<u>\$168,000</u>	<u>\$332,500</u>	<u>\$164,500</u>
Capital Projects			
Increased Storage of Title 22 Water	\$500,000	\$0	(\$500,000)
Title 22 Water Storage Evaluation	50,000	0	(50,000)
Platforms (20)	0	150,000	150,000
	<u>\$550,000</u>	<u>\$150,000</u>	<u>(\$400,000)</u>

**Northern California Power Agency
Lodi Energy Center
Projects Detail**

Projects	Notes	Total	FY 2014 Budget	Proposed FY 2015 Budget	Forecast FY 2016	Forecast FY 2017	Forecast FY 2018	Forecast FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023
Operations & Maintenance (O&M)												
HRSG/Boiler Overhauls	M	\$ 180,000	\$ 30,000	\$ -	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ -
Injection Well Clean Maintenance	M	195,000	-	-	65,000	-	65,000	-	65,000	-	-	-
Plant Betterment	M	250,000	125,000	125,000	-	-	-	-	-	-	-	-
Gas Comp Oil Pump	M	13,000	13,000	-	-	-	-	-	-	-	-	-
PI Performance Modules	M	80,000	-	80,000	-	-	-	-	-	-	-	-
Electrical Circuits Relocation	M	75,000	-	75,000	-	-	-	-	-	-	-	-
Storage Depot	M	52,500	-	52,500	-	-	-	-	-	-	-	-
CT Maintenance Access	M	200,000	-	-	200,000	-	-	-	-	-	-	-
Steam Turbine Access	M	150,000	-	-	-	-	150,000	-	-	-	-	-
Cooling Tower Pump Down	M	100,000	-	-	-	-	-	-	100,000	-	-	-
Air Filter Puffer System	M	500,000	-	-	-	-	-	-	-	-	-	500,000
Gas Turbine Insulation	M	250,000	-	-	-	-	-	-	-	-	-	250,000
DCS Software Upgrades	M	200,000	-	-	-	-	-	-	-	-	200,000	-
BOP PLC Upgrades	M	155,000	-	-	30,000	-	-	-	-	-	125,000	-
IRig-B Time Stamping	M	30,000	-	-	-	30,000	-	-	-	-	-	-
HVAC	M	40,000	-	-	-	-	-	-	-	-	40,000	-
Total O&M Projects Funding Requirement		\$ 2,470,500	\$ 168,000	\$ 332,500	\$ 325,000	\$ 60,000	\$ 245,000	\$ 30,000	\$ 195,000	\$ -	\$ 365,000	\$ 750,000

Projects	Notes	Total	FY 2014 Budget	Proposed FY 2015 Budget	Forecast FY 2016	Forecast FY 2017	Forecast FY 2018	Forecast FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023
Capital Projects												
Increased Storage of Title 22 Water	D	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Title 22 Water Storage Evaluation	D	50,000	50,000	-	-	-	-	-	-	-	-	-
Platforms (20)	D	950,000	-	150,000	150,000	150,000	150,000	150,000	150,000	50,000	-	-
DCS	M	250,000	-	-	-	-	-	-	-	-	-	250,000
Total Capital Projects Funding Requirement		\$ 1,750,000	\$ 550,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 50,000	\$ -	\$ 250,000

Notes:
D Discretionary
M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K
The above Capital Projects listing serves as a planning & budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies and guidelines will be applied as costs are incurred.

**Northern California Power Agency
Maintenance Reserves - Lodi Energy Center
Budget FY 2015**

The Maintenance Reserves have been established to both Fund and Pay for:

- * Anticipated costs of estimated SCHEDULED OVERHAULS;
- * Deductible portion of an insured loss (currently \$500,000 or more depending on the type of loss); and
- * Unanticipated; but, Commission approved cost overruns, extraordinary maintenance NOT budgeted in either the Maintenance Expense Accounts or in the Maintenance Reserve.

Funding/(Expenditures)	Fiscal Year Activity										
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
LEC:											
Beginning Reserve Balance	378,334	-	-	-	-	-	-	-	-	-	-
Combustion Turbine		120,000	3,940,000	100,000	100,000	320,000	3,850,000	100,000	100,000	210,000	500,000
Steam Turbine		-	-	95,000	-	-	-	-	20,000	-	500,000
Generators		-	-	500,000	-	-	-	-	1,000,000	-	-
Plant Projects		-	190,000	300,000	305,000	-	95,000	95,000	415,000	200,000	535,000
HRSG		-	40,000	-	40,000	-	40,000	1,000,000	40,000	-	40,000
Projected Requirements	-	120,000	4,170,000	995,000	445,000	320,000	3,985,000	1,195,000	1,575,000	410,000	1,575,000
Funding Requirement	397,250	1,800,000	1,800,000	1,450,000	1,450,000	1,450,000	1,450,000	1,450,000	1,450,000	1,450,000	1,450,000
Cumulative Balance	\$ 775,584	\$ 2,455,584	\$ 85,584	\$ 540,584	\$ 1,545,584	\$ 2,675,584	\$ 140,584	\$ 395,584	\$ 270,584	\$ 1,310,584	\$ 1,185,584

Table #	Program	Unit of Measure	Description
Table 17	LEC	GWh, GW	LEC Project Generation and Capacity
Table 18	LEC	GWh	LEC Export Energy
Table 19	LEC	# count	LEC Bid Segments
Table 20	LEC	\$	Grid Management Calculation
Table 21	LEC	# count	LEC Participant Inter-SC Sched Count
Table 22	LEC	\$	GMC Inter SC Trades Settlement
Table 23	LEC	\$	LEC Export Energy Costs
Table 24	LEC	\$	LEC Allocated Schedule 7 CAISO Costs
Table 25	LEC	\$	LEC Total Allocated CAISO Costs

		Energy	Spinning Reserve Capacity	Non Spinning Reserve Capacity	Regulation Up Capacity	Regulation Down Capacity	Total Awards
		GWh	GW	GW	GW	GW	
2014	July	97.285	3.019	-	1.982	30.203	132.489
	August	186.343	3.317	-	1.738	46.436	217.834
	Sept	129.854	3.032	-	1.740	38.540	173.166
	October	160.415	0.959	-	0.041	47.000	208.414
	November	134.861	0.030	-	-	34.442	169.334
	December	128.624	-	-	-	33.088	161.712
2015	January	129.145	-	-	-	31.678	160.823
	February	88.113	0.012	-	-	23.030	111.155
	March	45.418	0.015	-	-	9.118	54.551
	April	56.887	0.271	-	-	12.972	70.130
	May	27.127	0.217	-	0.021	5.452	32.817
	June	43.470	1.918	-	1.623	10.456	57.468
FY2015	Total	1207.543	12.791	0.000	7.144	322.414	1549.892

Table 18 LEC Export Energy in GWh

		Azusa	BART	Bloss	CDWR	Gridley	Healdsburg	Lodi	Lompoc	MID	Plumas	PWRPA	Santa Clara	Ukiah	Total Export Qty
2014	July	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	August	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Sept	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	October	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	November	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	December	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2015	January	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	February	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	March	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	April	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	May	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	June	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FY2012		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table 19 LEC Bid Segments

		Energy	Spin Reserve Cap	NSpin Reserve	Req Up Capacity	Req Dn Capacity	Total Bid Segments
2014	July	744	5,952	744	744	744	8,928
	August	744	5,952	744	744	744	8,928
	Sept	720	5,760	720	720	720	8,640
	October	744	5,952	744	744	744	8,928
	November	720	5,760	720	720	720	8,640
	December	744	5,952	744	744	744	8,928
2015	January	744	5,952	744	744	744	8,928
	February	672	5,376	672	672	672	8,064
	March	744	5,952	744	744	744	8,928
	April	720	5,760	720	720	720	8,640
	May	744	5,952	744	744	744	8,928
	June	720	5,760	720	720	720	8,640
FY2015	Total	70,080	8,760	8,760	8,760	8,760	105,120

Note: Bid Segments assumed DA and RT Energy Bid curve with 4 bid segments each; and, Spin, NSpin, ReqUp and ReqDn with 1 bid segment each.

CC 4561 - GMC System Operations Charge			
	Rate \$/ MWh		LEC Total
2014 July	0.289	\$	28,115
August	0.289	\$	48,073
Sept	0.289	\$	37,528
Oct	0.289	\$	46,360
Nov	0.289	\$	38,975
Dec	0.289	\$	37,172
2015 Jan	0.289	\$	37,323
Feb	0.289	\$	25,465
Mar	0.289	\$	13,126
April	0.289	\$	16,440
May	0.289	\$	7,840
Jun	0.289	\$	12,563
FY2015	Total	\$	348,980

CC 4560 - GMC Market Services Charge			
	Rate \$/ MW		LEC Total
2014 July	0.087	\$	11,487
August	0.087	\$	18,886
Sept	0.087	\$	15,014
Oct	0.087	\$	18,070
Nov	0.087	\$	14,661
Dec	0.087	\$	14,020
2015 Jan	0.087	\$	13,943
Feb	0.087	\$	9,637
Mar	0.087	\$	4,730
April	0.087	\$	6,080
May	0.087	\$	2,845
Jun	0.087	\$	4,982
FY2015	Total	\$	134,376

CC 4515 - GMC Bid Segment Charge			
	Rate \$/ bid seq		LEC Total
2014 July	0.005	\$	45
August	0.005	\$	45
Sept	0.005	\$	43
Oct	0.005	\$	45
Nov	0.005	\$	43
Dec	0.005	\$	45
2015 Jan	0.005	\$	45
Feb	0.005	\$	40
Mar	0.005	\$	45
April	0.005	\$	43
May	0.005	\$	45
Jun	0.005	\$	43
FY2015	Total	\$	526

CC 4575 - GMC Customer Charge			
	Rate \$/ SC-mo		
2014 July	0.00		
August	0.00		
Sept	0.00		
Oct	0.00		
Nov	0.00		
Dec	0.00		
2015 Jan	0.00		
Feb	0.00		
Mar	0.00		
April	0.00		
May	0.00		
Jun	0.00		
FY2015			

Total GMC for LEC		
	LEC Total GMC Amt.	
2014 July	\$ 39,647	
August	\$ 67,004	
Sept	\$ 52,585	
Oct	\$ 64,474	
Nov	\$ 53,699	
Dec	\$ 51,237	
2015 Jan	\$ 51,311	
Feb	\$ 35,142	
Mar	\$ 17,900	
April	\$ 22,564	
May	\$ 10,730	
Jun	\$ 17,589	
FY2015	\$ 483,881	

Table 21 LEC Participant Inter-SC Sched Count

	Azusa	BART	Biggs	CDWR	Gridley	Healdsburg	Lodi	Lompoc	MID	Plumas	PWRPA	Santa Clara	Ukiah	Total Count
59% Capacity Factor														
2014 July	439										439			439
August	439										439			439
Sept	425										425			425
October	439										439			439
November	425										425			425
December	439										439			439
2015 January	439										439			439
February	396										396			396
March	438										438			438
April	425										425			425
May	439										439			439
June	425										425			425
FY2015	Total	-	-	-	-	-	-	-	-	-	5,168	-	-	5,168

Note: Assumed one inter-sc trade of energy to PWRPA each hour

Table 22 GMC Inter SC Trades Settlement

	Rate \$/ Schedule-hr	Azusa	BART	Biggs	CDWR	Gridley	Healdsburg	Lodi	Lompoc	MID	Plumas	PWRPA	Santa Clara	Ukiah	Total Amount
2014 July	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 439	\$ -	\$ -	439
August	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 439	\$ -	\$ -	439
Sept	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 425	\$ -	\$ -	425
October	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 439	\$ -	\$ -	439
November	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 425	\$ -	\$ -	425
December	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 439	\$ -	\$ -	439
2015 January	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 439	\$ -	\$ -	439
February	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 396	\$ -	\$ -	396
March	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 438	\$ -	\$ -	438
April	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 425	\$ -	\$ -	425
May	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 439	\$ -	\$ -	439
June	1.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 425	\$ -	\$ -	425
FY2015	Total	-	-	-	-	-	-	-	-	-	-	5,168	-	-	5,168

Northern California Power Agency
 Budgeted ISO Charges FY 2015
 Table 23 LEC Export Energy Costs
 (Based on ISO net export energy - Table 2)

	Rate \$/MWh	Azusa	BART	Biggs	CDWR	Gridley	Healdsburg	Lodi	Lompoc	MID	Plumas	PWRPA	Santa Clara	Ukiah	Total Export Cost
2014 July	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
August	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sept	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
October	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
November	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
December	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015 January	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
February	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
March	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
April	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
May	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
June	10.038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FY2015	Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Table 24 LEC GMC Operating Costs

		Azusa		BART		Biggs		CDWR		Gridley		Healdsburg		Lodi		Lompoc		MID		Plumas		PWRPA		Santa Clara		Ukiah		NCPA-SC			
		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%					
2014	July	\$	39,646.89	\$	1,104	\$	2,617	\$	106	\$	13,282	\$	779	\$	651	\$	3,766	\$	807	\$	4,248	\$	312	\$	1,058	\$	10,209	\$	708	\$	39,647
	August	\$	67,003.95	\$	1,867	\$	4,422	\$	180	\$	22,446	\$	1,316	\$	1,101	\$	6,365	\$	1,364	\$	7,179	\$	526	\$	1,788	\$	17,254	\$	1,196	\$	67,004
	Sept	\$	52,584.51	\$	1,465	\$	3,471	\$	141	\$	17,616	\$	1,033	\$	864	\$	4,996	\$	1,070	\$	5,634	\$	413	\$	1,403	\$	13,541	\$	939	\$	52,585
	Oct	\$	64,474.11	\$	1,796	\$	4,255	\$	173	\$	21,599	\$	1,266	\$	1,059	\$	6,125	\$	1,312	\$	6,908	\$	507	\$	1,720	\$	16,602	\$	1,151	\$	64,474
	Nov	\$	53,699.30	\$	1,496	\$	3,544	\$	144	\$	17,989	\$	1,055	\$	882	\$	5,101	\$	1,093	\$	5,754	\$	422	\$	1,433	\$	13,828	\$	959	\$	53,699
	Dec	\$	51,237.41	\$	1,427	\$	3,382	\$	137	\$	17,165	\$	1,006	\$	842	\$	4,868	\$	1,043	\$	5,490	\$	403	\$	1,367	\$	13,194	\$	915	\$	51,237
2015	Jan	\$	51,310.90	\$	1,429	\$	3,387	\$	137	\$	17,189	\$	1,008	\$	843	\$	4,875	\$	1,045	\$	5,498	\$	403	\$	1,369	\$	13,213	\$	916	\$	51,311
	Feb	\$	35,142.11	\$	979	\$	2,319	\$	94	\$	11,773	\$	690	\$	577	\$	3,339	\$	715	\$	3,765	\$	276	\$	938	\$	9,049	\$	628	\$	35,142
	Mar	\$	17,900.03	\$	499	\$	1,181	\$	48	\$	5,997	\$	352	\$	294	\$	1,701	\$	364	\$	1,918	\$	141	\$	478	\$	4,609	\$	320	\$	17,900
	April	\$	22,563.80	\$	629	\$	1,489	\$	60	\$	7,559	\$	443	\$	371	\$	2,144	\$	459	\$	2,418	\$	177	\$	602	\$	5,810	\$	403	\$	22,564
	May	\$	10,729.61	\$	299	\$	708	\$	29	\$	3,594	\$	211	\$	176	\$	1,019	\$	218	\$	1,150	\$	84	\$	286	\$	2,763	\$	192	\$	10,730
	Jun	\$	17,588.60	\$	490	\$	1,161	\$	47	\$	5,892	\$	345	\$	289	\$	1,671	\$	358	\$	1,884	\$	138	\$	469	\$	4,529	\$	314	\$	17,589
	FY2015	\$	483,881.21	\$	13,479	\$	31,936	\$	1,296	\$	162,100	\$	9,505	\$	7,949	\$	45,969	\$	9,850	\$	51,844	\$	3,802	\$	12,909	\$	124,599	\$	8,641	\$	483,881

Note: LEC GMC Operating Costs represents sum of total LEC budgeted CAISO costs associated with Systems Operations charge, Market Services charge Bid Segment charge, and Customer Charge.

Table 25 LEC Total Allocated CAISO Costs

		Azusa	BART	Biggs	CDWR	Gridley	Healdsburg	Lodi	Lompoc	MID	Plumas	PWRPA	Santa Clara	Ukiah	Total Amount
2014 July	\$	1,104	\$ 2,617	\$ 106	\$ 13,282	\$ 779	\$ 651	\$ 3,766	\$ 807	\$ 4,248	\$ 312	\$ 1,497	\$ 10,209	\$ 708	\$ 40,086
August	\$	1,867	\$ 4,422	\$ 180	\$ 22,446	\$ 1,316	\$ 1,101	\$ 6,365	\$ 1,364	\$ 7,179	\$ 526	\$ 2,227	\$ 17,254	\$ 1,196	\$ 67,443
Sept	\$	1,465	\$ 3,471	\$ 141	\$ 17,616	\$ 1,033	\$ 864	\$ 4,996	\$ 1,070	\$ 5,634	\$ 413	\$ 1,828	\$ 13,541	\$ 939	\$ 53,009
Oct	\$	1,796	\$ 4,255	\$ 173	\$ 21,599	\$ 1,266	\$ 1,059	\$ 6,125	\$ 1,312	\$ 6,908	\$ 507	\$ 2,159	\$ 16,602	\$ 1,151	\$ 64,913
Nov	\$	1,496	\$ 3,544	\$ 144	\$ 17,989	\$ 1,055	\$ 882	\$ 5,101	\$ 1,093	\$ 5,754	\$ 422	\$ 1,858	\$ 13,828	\$ 959	\$ 54,125
Dec	\$	1,427	\$ 3,382	\$ 137	\$ 17,165	\$ 1,006	\$ 842	\$ 4,868	\$ 1,043	\$ 5,490	\$ 403	\$ 1,806	\$ 13,194	\$ 915	\$ 51,676
2015 Jan	\$	1,429	\$ 3,387	\$ 137	\$ 17,189	\$ 1,008	\$ 843	\$ 4,875	\$ 1,045	\$ 5,498	\$ 403	\$ 1,808	\$ 13,213	\$ 916	\$ 51,750
Feb	\$	979	\$ 2,319	\$ 94	\$ 11,773	\$ 690	\$ 577	\$ 3,339	\$ 715	\$ 3,765	\$ 276	\$ 1,334	\$ 9,049	\$ 628	\$ 35,539
Mar	\$	499	\$ 1,181	\$ 48	\$ 5,997	\$ 352	\$ 294	\$ 1,701	\$ 364	\$ 1,918	\$ 141	\$ 478	\$ 4,609	\$ 320	\$ 18,338
April	\$	629	\$ 1,489	\$ 60	\$ 7,559	\$ 443	\$ 371	\$ 2,144	\$ 459	\$ 2,418	\$ 177	\$ 1,027	\$ 5,810	\$ 403	\$ 22,989
May	\$	299	\$ 708	\$ 29	\$ 3,594	\$ 211	\$ 176	\$ 1,019	\$ 218	\$ 1,150	\$ 84	\$ 275	\$ 2,763	\$ 192	\$ 11,169
Jun	\$	490	\$ 1,161	\$ 47	\$ 5,892	\$ 345	\$ 289	\$ 1,671	\$ 358	\$ 1,884	\$ 138	\$ 469	\$ 4,529	\$ 314	\$ 18,013
FY2015	Total	\$ 13,479	\$ 31,936	\$ 1,296	\$ 162,100	\$ 9,505	\$ 7,949	\$ 45,969	\$ 9,850	\$ 51,844	\$ 3,802	\$ 18,078	\$ 124,599	\$ 8,641	\$ 489,050

Note: Sum of budgeted CAISO SC costs for LEC Project, inter-SC member costs, and member export costs

Table 1 LEC Project Ancillary Services Capacity Revenue Budget

Year	Month	Total Revenue	Azusa 2.7857%	BART 6.6000%	Biggs 0.2679%	CDWR 33.5000%	Gridley 1.9643%	Healdsburg 1.6428%	Lodi 9.5000%	Lompoc 2.0357%	MID 10.7143%	Plumas 0.7857%	PWRPA 2.6679%	Santa Clara 25.7500%	Ukiah 1.7857%	NCPA-SC 100.0000%
2014	July	\$ 158,325	\$ 4,410	\$ 10,449	\$ 424	\$ 53,039	\$ 3,110	\$ 2,601	\$ 15,041	\$ 3,223	\$ 16,963	\$ 1,244	\$ 4,224	\$ 40,769	\$ 2,827	\$ 158,325
	August	\$ 222,775	\$ 6,206	\$ 14,703	\$ 597	\$ 74,630	\$ 4,376	\$ 3,680	\$ 21,164	\$ 4,535	\$ 23,869	\$ 1,750	\$ 5,943	\$ 57,365	\$ 3,978	\$ 222,775
	Sept	\$ 185,758	\$ 5,175	\$ 12,260	\$ 498	\$ 62,229	\$ 3,649	\$ 3,052	\$ 17,647	\$ 3,781	\$ 19,903	\$ 1,459	\$ 4,956	\$ 47,833	\$ 3,317	\$ 185,758
	Oct	\$ 191,165	\$ 5,325	\$ 12,617	\$ 512	\$ 64,040	\$ 3,755	\$ 3,140	\$ 18,161	\$ 3,892	\$ 20,482	\$ 1,502	\$ 5,100	\$ 49,225	\$ 3,414	\$ 191,165
	Nov	\$ 136,996	\$ 3,816	\$ 9,042	\$ 367	\$ 45,894	\$ 2,691	\$ 2,251	\$ 13,015	\$ 2,789	\$ 14,678	\$ 1,076	\$ 3,655	\$ 35,276	\$ 2,446	\$ 136,996
	Dec	\$ 130,866	\$ 3,646	\$ 8,637	\$ 351	\$ 43,840	\$ 2,571	\$ 2,150	\$ 12,432	\$ 2,664	\$ 14,021	\$ 1,028	\$ 3,491	\$ 33,698	\$ 2,337	\$ 130,866
2015	Jan	\$ 125,434	\$ 3,494	\$ 8,279	\$ 336	\$ 42,020	\$ 2,464	\$ 2,061	\$ 11,916	\$ 2,553	\$ 13,439	\$ 986	\$ 3,346	\$ 32,299	\$ 2,240	\$ 125,434
	Feb	\$ 91,245	\$ 2,542	\$ 6,022	\$ 244	\$ 30,567	\$ 1,792	\$ 1,499	\$ 8,668	\$ 1,857	\$ 9,776	\$ 717	\$ 2,434	\$ 23,496	\$ 1,629	\$ 91,245
	Mar	\$ 36,403	\$ 1,014	\$ 2,403	\$ 98	\$ 12,195	\$ 715	\$ 598	\$ 3,458	\$ 741	\$ 3,900	\$ 286	\$ 971	\$ 9,374	\$ 650	\$ 36,403
	April	\$ 52,972	\$ 1,476	\$ 3,496	\$ 142	\$ 17,746	\$ 1,041	\$ 870	\$ 5,032	\$ 1,078	\$ 5,676	\$ 416	\$ 1,413	\$ 13,640	\$ 946	\$ 52,972
	May	\$ 22,778	\$ 635	\$ 1,503	\$ 61	\$ 7,631	\$ 447	\$ 374	\$ 2,164	\$ 464	\$ 2,441	\$ 179	\$ 608	\$ 5,865	\$ 407	\$ 22,778
	Jun	\$ 65,715	\$ 1,831	\$ 4,337	\$ 176	\$ 22,015	\$ 1,291	\$ 1,080	\$ 6,243	\$ 1,338	\$ 7,041	\$ 516	\$ 1,753	\$ 16,922	\$ 1,173	\$ 65,715
		\$ 1,420,431	\$ 39,569	\$ 93,748	\$ 3,805	\$ 475,844	\$ 27,902	\$ 23,335	\$ 134,941	\$ 28,916	\$ 152,189	\$ 11,160	\$ 37,896	\$ 365,761	\$ 25,365	\$ 1,420,431

Table 2 LEC Project ISO Energy Sales Revenue Budget

Year	Month	Total Revenue	Azusa 2.7857%	BART 6.6000%	Biggs 0.2679%	CDWR 33.5000%	Gridley 1.9643%	Healdsburg 1.6428%	Lodi 9.5000%	Lompoc 2.0357%	MID 10.7143%	Plumas 0.7857%	PWRPA 2.6679%	Santa Clara 25.7500%	Ukiah 1.7857%	NCPA-SC 100.0000%
2014	July	\$ 4,463,816	\$ 124,349	\$ 294,612	\$ 11,959	\$ 1,495,378	\$ 87,683	\$ 73,332	\$ 424,063	\$ 90,870	\$ 478,267	\$ 35,072	\$ 119,090	\$ 1,149,433	\$ 79,710	\$ 4,463,816
	August	\$ 8,240,883	\$ 229,566	\$ 543,898	\$ 22,077	\$ 2,760,696	\$ 161,876	\$ 135,381	\$ 782,884	\$ 167,760	\$ 882,953	\$ 64,749	\$ 219,859	\$ 2,122,027	\$ 147,157	\$ 8,240,883
	Sept	\$ 6,062,081	\$ 168,871	\$ 400,097	\$ 16,240	\$ 2,030,797	\$ 119,077	\$ 99,588	\$ 575,898	\$ 123,406	\$ 649,510	\$ 47,630	\$ 161,730	\$ 1,560,986	\$ 108,251	\$ 6,062,081
	Oct	\$ 7,452,961	\$ 207,617	\$ 491,895	\$ 19,966	\$ 2,496,742	\$ 146,399	\$ 122,437	\$ 708,031	\$ 151,720	\$ 798,533	\$ 58,558	\$ 198,838	\$ 1,919,138	\$ 133,088	\$ 7,452,961
	Nov	\$ 6,126,742	\$ 170,673	\$ 404,365	\$ 16,414	\$ 2,052,458	\$ 120,348	\$ 100,650	\$ 582,040	\$ 124,722	\$ 656,437	\$ 48,138	\$ 163,455	\$ 1,577,636	\$ 109,405	\$ 6,126,742
	Dec	\$ 6,117,061	\$ 170,403	\$ 403,726	\$ 16,388	\$ 2,049,215	\$ 120,157	\$ 100,491	\$ 581,121	\$ 124,525	\$ 655,400	\$ 48,062	\$ 163,197	\$ 1,575,143	\$ 109,232	\$ 6,117,061
2015	Jan	\$ 6,099,454	\$ 169,912	\$ 402,564	\$ 16,340	\$ 2,043,317	\$ 119,812	\$ 100,202	\$ 579,448	\$ 124,167	\$ 653,514	\$ 47,923	\$ 162,727	\$ 1,570,609	\$ 108,918	\$ 6,099,454
	Feb	\$ 4,144,438	\$ 115,452	\$ 273,533	\$ 11,103	\$ 1,388,387	\$ 81,409	\$ 68,085	\$ 393,722	\$ 84,368	\$ 444,048	\$ 32,563	\$ 110,569	\$ 1,067,193	\$ 74,007	\$ 4,144,438
	Mar	\$ 1,945,780	\$ 54,204	\$ 128,422	\$ 5,213	\$ 651,836	\$ 38,221	\$ 31,965	\$ 184,849	\$ 39,610	\$ 208,477	\$ 15,288	\$ 51,911	\$ 501,038	\$ 34,746	\$ 1,945,780
	April	\$ 2,367,796	\$ 65,960	\$ 156,275	\$ 6,343	\$ 793,212	\$ 46,511	\$ 38,898	\$ 224,941	\$ 48,201	\$ 253,693	\$ 18,604	\$ 63,170	\$ 609,707	\$ 42,282	\$ 2,367,796
	May	\$ 1,060,423	\$ 29,540	\$ 69,988	\$ 2,841	\$ 355,242	\$ 20,830	\$ 17,421	\$ 100,740	\$ 21,587	\$ 113,617	\$ 8,332	\$ 28,291	\$ 273,059	\$ 18,936	\$ 1,060,423
	Jun	\$ 1,726,710	\$ 48,101	\$ 113,963	\$ 4,626	\$ 578,448	\$ 33,918	\$ 28,366	\$ 164,037	\$ 35,151	\$ 185,005	\$ 13,567	\$ 46,067	\$ 444,628	\$ 30,834	\$ 1,726,710
		\$ 55,808,145	\$ 1,554,647	\$ 3,683,338	\$ 149,510	\$ 18,695,729	\$ 1,096,239	\$ 916,816	\$ 5,301,774	\$ 1,136,086	\$ 5,979,452	\$ 438,485	\$ 1,488,905	\$ 14,370,597	\$ 996,566	\$ 55,808,145

Year	Month	Spinning Reserve Revenue Budget	Reg Up Capacity Revenue Budget	Reg Down Capacity Revenue Budget	Total A/S Capacity Revenue Budget Amount
2014	July	\$ 13,531	\$ 25,559	\$ 119,235	\$ 158,325
	August	\$ 15,080	\$ 24,837	\$ 182,858	\$ 222,775
	Sept	\$ 13,434	\$ 19,704	\$ 152,619	\$ 185,758
	October	\$ 4,200	\$ 377	\$ 186,588	\$ 191,165
	November	\$ 130	\$ -	\$ 136,866	\$ 136,996
	December	\$ -	\$ -	\$ 130,866	\$ 130,866
2015	January	\$ -	\$ -	\$ 125,434	\$ 125,434
	February	\$ 51	\$ -	\$ 91,193	\$ 91,245
	March	\$ 65	\$ -	\$ 36,338	\$ 36,403
	April	\$ 1,158	\$ -	\$ 51,814	\$ 52,972
	May	\$ 943	\$ 181	\$ 21,655	\$ 22,778
	June	\$ 8,345	\$ 15,773	\$ 41,597	\$ 65,715
	Total	\$ 56,938	\$ 86,430	\$ 1,277,062	\$ 1,420,431

LEC Spinning Reserve Capacity Revenue

Year	Month	Spinning Reserve Market Price	Spinning Reserve Capacity in GW	Spinning Reserve Capacity Revenue Budget
2014	7	4.481	3.02	\$ 13,531
	8	4.547	3.32	\$ 15,080
	9	4.430	3.03	\$ 13,434
	10	4.381	0.96	\$ 4,200
	11	4.305	0.03	\$ 130
	12	-	-	\$ -
2015	1	-	-	\$ -
	2	4.308	0.01	\$ 51
	3	4.268	0.02	\$ 65
	4	4.274	0.27	\$ 1,158
	5	4.341	0.22	\$ 943
	6	4.350	1.92	\$ 8,345
	Total		12.79	\$ 56,938

LEC Regulation Up Capacity Revenue

Year	Month	Reg Up Market Price	Regulation Up Capacity in GW	Regulation Up Capacity Revenue Budget
2014	7	12.897	1.98	\$ 25,559
	8	14.290	1.74	\$ 24,837
	9	11.325	1.74	\$ 19,704
	10	9.257	0.04	\$ 377
	11	-	-	\$ -
	12	-	-	\$ -
2015	1	-	-	\$ -
	2	-	-	\$ -
	3	-	-	\$ -
	4	-	-	\$ -
	5	8.804	0.02	\$ 181
	6	9.716	1.62	\$ 15,773
Total			7.14	\$ 86,430

LEC Regulation Down Capacity Revenue

Year	Month	Reg Down Market Price	Regulation Down Capacity in GW	Regulation Down Capacity Revenue Budget
2014	7	3.948	30.20	\$ 119,235
	8	3.938	46.44	\$ 182,858
	9	3.960	38.54	\$ 152,619
	10	3.970	47.00	\$ 186,588
	11	3.974	34.44	\$ 136,866
	12	3.955	33.09	\$ 130,866
2015	1	3.960	31.68	\$ 125,434
	2	3.960	23.03	\$ 91,193
	3	3.985	9.12	\$ 36,338
	4	3.994	12.97	\$ 51,814
	5	3.972	5.45	\$ 21,655
	6	3.978	10.46	\$ 41,597
			322.41	\$ 1,277,062

LEC HLH Energy Revenue

Year	Month	Energy Market Price	Energy GWh	Energy Revenue Budget
2014	7	48.618	75.49	\$ 3,669,982
	8	53.856	106.62	\$ 5,742,199
	9	49.107	96.18	\$ 4,723,257
	10	48.491	114.60	\$ 5,556,902
	11	47.473	91.56	\$ 4,346,480
	12	49.103	97.10	\$ 4,767,617
2015	1	48.637	92.69	\$ 4,508,089
	2	47.660	76.58	\$ 3,649,823
	3	44.260	35.65	\$ 1,577,878
	4	42.082	53.95	\$ 2,270,317
	5	39.611	24.65	\$ 961,438
	6	41.874	32.99	\$ 1,381,314
			898.04	\$ 43,175,095

LEC LLH Energy Revenue

Year	Month	Energy Market Price	Energy GWh	Energy Revenue Budget
2014	7	36.414	21.80	\$ 793,834
	8	41.839	59.72	\$ 2,498,684
	9	39.762	33.67	\$ 1,338,824
	10	41.381	45.82	\$ 1,886,059
	11	41.110	43.31	\$ 1,780,262
	12	42.800	31.53	\$ 1,349,444
2015	1	43.650	36.46	\$ 1,591,365
	2	42.887	11.53	\$ 494,615
	3	37.669	9.77	\$ 368,103
	4	33.190	2.94	\$ 97,478
	5	31.913	2.48	\$ 78,986
	6	32.949	10.48	\$ 345,396
			309.50	\$ 12,633,050

NORTHERN CALIFORNIA POWER AGCY
Shared Facilities - Gas Plants
Comparative Annual Budget Report

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Shared Costs			
Operations	\$166,022	\$76,040	(\$89,982)
Maintenance	107,150	186,335	79,185
Administration	312,123	320,170	8,047
Shared Costs without Labor	\$585,295	\$582,545	(\$2,750)
Summary of Costs by Subprograms per PMOA Schedule 4.00			
Anhydrous Ammonia System (subprog 001)	\$20,000	\$15,000	(\$5,000)
Administration/Warehouse Building (subprog 002)	494,883	510,795	15,912
230 Kv Switchyard Common Equip (subprog 004)	11,725	24,000	12,275
Tooling and Special Equipment (subprog 005)	14,317	4,120	(10,197)
Vehicle Usage (subprog 007)	44,370	28,630	(15,740)
	\$585,295	\$582,545	(\$2,750)
Liquidation to Plants			
CT 1			
Operations	\$23,950	\$9,125	(\$14,825)
Maintenance	28,802	35,032	6,229
Administration	48,285	43,400	(4,884)
	101,037	87,557	(13,480)
CT 2			
Operations	28,239	13,687	(14,552)
Maintenance	16,253	29,724	13,471
Administration	54,182	56,606	2,423
	98,674	100,017	1,342
LEC			
Operations	113,833	53,228	(60,605)
Maintenance	62,094	121,580	59,485
Administration	209,656	220,164	10,508
	385,584	394,971	9,388
	\$585,295	\$582,545	(\$2,750)

NORTHERN CALIFORNIA POWER AGCY
Shared Facilities - Gas Plants
Comparative Annual Budget Report

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Operations Expense			
Plant -			
Safety Supplies & Equipment (subprog 002)	10,815	10,815	0
O2 & NOX Calib Gas (subprog 001)	20,000	0	(20,000)
Communication Services - Intranet (subprog 002)	65,000	45,000	(20,000)
	<u>95,815</u>	<u>55,815</u>	<u>(40,000)</u>
Other Costs -			
Telephone & Dedicated Comm. (subprog 002)	20,225	20,225	0
Telephone-Data CMU Link (subprog 002)	31,545	0	(31,545)
Vehicle & Misc Rental (subprog 007)	8,240	0	(8,240)
Doble Instrument Lease (subprog 005)	10,197	0	(10,197)
	<u>70,207</u>	<u>20,225</u>	<u>(49,982)</u>
	<u>\$166,022</u>	<u>\$76,040</u>	<u>(\$89,982)</u>
Maintenance Expense			
Plant -			
Ammonia System Maintenance (subprog 001)	\$0	\$15,000	\$15,000
Misc. Maint Materials & Supplies (subprog 002)	5,000	40,000	35,000
Tools/Shop/Warehouse Equipment (subprog 002)	25,000	25,000	0
Switchyard (subprog 004)	0	20,000	20,000
Vehicle Fuel/Maintenance (subprog 007)	21,630	21,630	0
	<u>51,630</u>	<u>121,630</u>	<u>70,000</u>
Other Costs -			
HVAC Services (subprog 002)	0	15,000	15,000
CMMS - Maintenance Connection (subprog 004)	7,725	0	(7,725)
Plant Information Services (subprog 002)	44,705	44,705	0
Network Security Testing (subprog 002)	3,090	0	(3,090)
Equipment Rentals (subprog 002)	0	5,000	5,000
	<u>55,520</u>	<u>64,705</u>	<u>9,185</u>
	<u>\$107,150</u>	<u>\$186,335</u>	<u>\$79,185</u>

NORTHERN CALIFORNIA POWER AGCY
Shared Facilities - Gas Plants
Comparative Annual Budget Report

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Administration Expense			
Outside Services -			
Legal Services (subprog 002)	\$0	\$10,000	\$10,000
Janitorial Services (subprog 002)	0	15,000	15,000
	0	25,000	25,000
Other Costs -			
Travel (subprog 002)	53,000	53,000	0
Staff Development (subprog 002)	50,750	50,750	0
Safety Equipment/Program (subprog 002)	25,000	25,000	0
Safety Incentive Program (subprog 002)	2,060	0	(2,060)
Communications Hardware (subprog 005)	4,120	4,120	0
Community Relations (subprog 002)	773	1,000	227
EH&S Safety Committee (subprog 002)	1,030	0	(1,030)
Hdwr/Sfwr Upgrades & Maint (subprog 004)	4,000	4,000	0
Janitorial Supplies & Misc Expenses (subprog 002)	8,090	47,500	39,410
Office Equipment Maintenance (subprog 002)	25,300	25,300	0
Safety Incentive Program (subprog 002)	6,000	2,500	(3,500)
General Office Supplies (subprog 002)	32,500	45,000	12,500
Computer (software,hardware,network,...) (subprog 002)	20,000	15,000	(5,000)
Vehicle Expense (subprog 007)	14,500	7,000	(7,500)
Ground Lease (subprog 002)	45,000	0	(45,000)
Awards/Employee Functions (subprog 002)	5,000	5,000	0
Employee Physicals (subprog 002)	15,000	0	(15,000)
Publications (subprog 002)	0	10,000	10,000
	312,123	295,170	(16,953)
	\$312,123	\$320,170	\$8,047

NORTHERN CALIFORNIA POWER AGENCY
Generation Services - Shared
Comparative Annual Budget Report

	FY 2014 Budget	Proposed FY 2015 Budget	Increase/ (Decrease)
Routine O&M Costs			
Operations	\$ 324,692	\$ 300,000	\$ (24,692)
Administration	140,000	65,000	(75,000)
Routine O&M w/o Labor	464,692	365,000	(99,692)
Labor	1,580,779	1,333,746	(247,033)
Total Routine O&M Costs	2,045,471	1,698,746	(346,725)
Occupancy Cost	104,150	155,833	51,683
Annual Budget Cost	2,149,621	1,854,579	(295,042)
Less Funding			
Generation Services Shared - Liquidation	(2,149,621)	(1,854,579)	295,042
	\$ -	\$ -	\$ -

	Person Years	Allocation
Allocated	FY 15	FY 15 %
Hydro	18.72	21.3%
CT 1	3.29	3.7%
CT 2	3.08	3.5%
LEC	20.71	23.6%
Geo	42.00	47.8%
	87.80	100.0%

Allocation based on FTE person years.

\$ 487,532	\$ 395,418	\$ (92,114)
80,734	69,494	(11,241)
75,786	65,058	(10,728)
510,711	437,453	(73,258)
994,857	887,156	(107,701)
\$ 2,149,621	\$ 1,854,579	\$ (295,042)

Northern California Power Agency
Calculation of JPA Assessment for Fiscal Year 2015 Budget

JPA Assessment Amount \$ / MWh			\$0.150	
Member	CY13 Energy Delivered MWh	Share %	JPA Assessment	Participant Revenue Share
Alameda	379,307	4.6730%	\$56,894	\$4,580
BART	367,855	4.5319%	\$55,177	4,441
Biggs	16,902	0.2082%	2,535	204
Gridley	35,731	0.4402%	5,360	431
Healdsburg	79,172	0.9754%	11,875	956
Lodi	452,608	5.5761%	67,889	5,465
Lompoc	137,420	1.6930%	20,612	1,659
Palo Alto	986,236	12.1503%	147,931	11,907
Plumas Sierra	165,389	2.0376%	24,808	1,997
Port Of Oakland	75,134	0.9256%	11,270	907
Redding	800,623	9.8636%	120,090	9,666
Roseville	1,232,840	15.1885%	184,920	14,885
Santa Clara	3,116,845	38.3992%	467,513	37,631
Truckee Donner	154,271	1.9006%	23,140	1,863
Ukiah	116,616	1.4367%	17,492	1,408
Subtotal NCPA Participants	8,116,951	100.0000%	1,217,506	\$97,999
Other participants:				
TID ¹	819,320		7,780	
Other LEC Participants:				
City of Azusa ²	33,734		5,060	
CDWR ²	405,673		60,851	
MID ²	129,746		19,462	
PWRPA ²	32,307		4,846	
Subtotal Other LEC participants			90,219	
Subtotal Other participants	-		97,999	
Total NCPA and Other			\$1,315,505	

¹ CY2013 MWh share of Geothermal generation (\$0.150 x 6.3305% x 819,320 Mwh)

² Per LEC Project Management and Operations Agreement, Article 6.2.1.b

JPA Cost rate x GES x Annual CY Mwh Generation

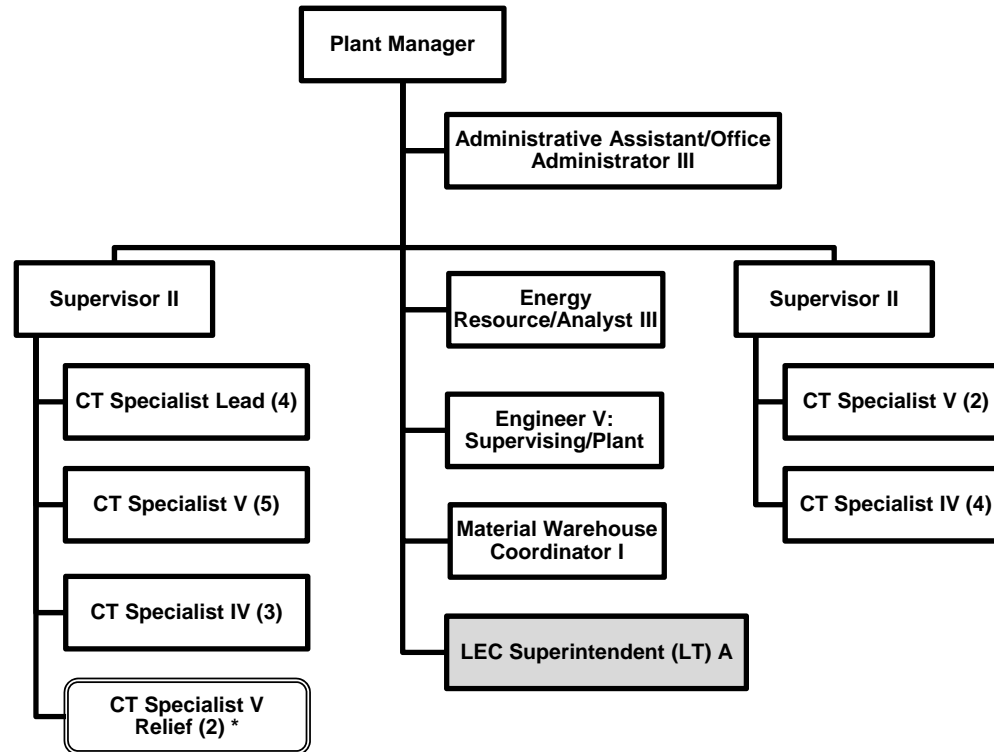
Azusa \$0.150 x 2.7857% x 1,210,965

CDWR \$0.150 x 33.5000% x 1,210,965

MID \$0.150 x 10.7143% x 1,210,965

PWRPA \$0.150 x 2.6679% x 1,210,965

Combustion Turbine Facilities and LEC



* CT Specialist V – Relief (2 positions) budgeted FY 2014-2015.

** (LT)-A Position budgeted limited term for Lodi Energy Center, ½ year FY 2013-2014, not budgeted FY 2014-2015.

Generation Services

Org. 610 - Combustion Turbine and Lodi Energy Center Facilities (CT 1, CT 2 & LEC)

No.	Name	Position	CT 1			CT 2			LEC			TOTAL
			Facility Mgmt & Admin	Operations	Maintenance	Facility Mgmt & Admin	Operations	Maintenance	Facility Mgmt & Admin	Operations	Maintenance	
			546-010-000	548-010-000	553-010-000	546-006-000	548-006-000	553-006-000	546-009-000	548-009-000	553-009-000	
			610-010-000	610-010-000	610-010-000	610-010-000	610-010-000	610-010-000	610-010-000	610-010-000	610-010-000	
1	DeBortoli, Michael	Manager, Plant	341			341			1,398			2,080
2	Venethongkham, Souriyet	Engineer/Energy Resource III	341			341			1,398			2,080
3	Conrad, Melissa	Administrative Assistant/Office Administrator III	341			341			1,398			2,080
4	Philpot, Melissa	Material/Warehouse Coordinator I	341			341			1,398			2,080
5	Lawson, Jeremy	Engineer V: Supervising/Plant	341			341			1,398			2,080
6	Santana, Rafael	Supervisor II			354			270			1,456	2,080
7	Sexton, Scott	Supervisor II		172			182			1,726		2,080
8	Aistrup, Scott	CT Specialist V		172			182			1,726		2,080
9	Cottrell, Matthew	CT Specialist - Lead		172			182			1,726		2,080
10	Dempsey, Mark W.	CT Specialist V		172			182			1,726		2,080
11	Johnson, Ryan	CT Specialist - Lead		172			182			1,726		2,080
12	Johnson, Tom	CT Specialist IV		172			182			1,726		2,080
13	Murphy, Eric	CT Specialist V		172			182			1,726		2,080
14	Pacheco, Jeffrey	CT Specialist - Lead		172			182			1,726		2,080
15	Phillips, Jaun	CT Specialist IV		172			182			1,726		2,080
16	Quitter, John	CT Specialist V		172			182			1,726		2,080
17	Rusk, Brad	CT Specialist V		172			182			1,726		2,080
18	Stimac, Dennis	CT Specialist IV		172			182			1,726		2,080
19	Wertz, James	CT Specialist - Lead		172			182			1,726		2,080
20	Vacant	CT Specialist V - Relief *		172			182			1,726		2,080
21	Vacant	CT Specialist V - Relief *		172			182			1,726		2,080
22	Gibbon, Jeff	CT Specialist IV			354			270			1,456	2,080
23	Martin, Joshua	CT Specialist IV			354			270			1,456	2,080
24	Oliveros, Felix	CT Specialist IV			354			270			1,456	2,080
25	Peplot, Rick L.	CT Specialist V			354			270			1,456	2,080
26	Ropp, Michael	CT Specialist IV			354			270			1,456	2,080
27	Turner, Dylan	CT Specialist V			354			270			1,456	2,080
28	Vacant	Superintendent, Generation Resources (LT) (LEC) **										-
Total Hours			1,705	2,580	2,478	1,705	2,730	1,890	6,990	25,890	10,192	56,160
Total in Person Years			0.82	1.24	1.19	0.82	1.31	0.91	3.36	12.45	4.90	27.00
Total Budget \$			\$ 163,716	\$ 262,513	\$ 241,602	\$ 163,716	\$ 277,775	\$ 184,273	\$ 671,188	\$ 2,634,286	\$ 993,708	\$ 5,592,778

* CT Specialist V - Relief (2 positions) budgeted FY 2014-2015.

** Position budgeted Limited Term for Lodi Energy Center 1/2 year FY 2013-2014, not budgeted FY 2014-2015.

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B

PERIOD ENDING	Total Issue			TOTAL PROJECT
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	
7/1/2014	4,690,833	16,540,220	(4,519,569)	16,711,485
7/1/2015	4,885,417	16,348,533	(4,519,569)	16,714,381
7/1/2016	5,131,250	16,104,262	(4,519,569)	16,715,943
7/1/2017	5,387,083	15,847,700	(4,519,569)	16,715,214
7/1/2018	5,653,750	15,578,345	(4,519,569)	16,712,527
7/1/2019	5,939,583	15,295,658	(4,519,569)	16,715,672
7/1/2020	6,235,833	14,998,679	(4,519,569)	16,714,943
7/1/2021	6,547,083	14,686,887	(4,519,569)	16,714,402
7/1/2022	6,873,333	14,359,533	(4,519,569)	16,713,297
7/1/2023	7,215,000	14,015,866	(4,519,569)	16,711,297
7/1/2024	7,576,667	13,655,116	(4,519,569)	16,712,214
7/1/2025	7,959,167	13,276,283	(4,519,569)	16,715,881
7/1/2026	8,368,333	12,862,273	(4,501,795)	16,728,811
7/1/2027	8,769,583	12,250,464	(4,287,662)	16,732,385
7/1/2028	9,186,250	11,609,320	(4,063,262)	16,732,308
7/1/2029	9,622,917	10,937,713	(3,828,200)	16,732,430
7/1/2030	10,080,000	10,234,182	(3,581,964)	16,732,218
7/1/2031	10,561,667	9,497,233	(3,324,031)	16,734,868
7/1/2032	11,063,750	8,725,069	(3,053,774)	16,735,045
7/1/2033	11,590,417	7,916,198	(2,770,669)	16,735,946
7/1/2034	12,137,917	7,068,823	(2,474,088)	16,732,652
7/1/2035	12,715,000	6,181,420	(2,163,497)	16,732,923
7/1/2036	13,317,500	5,251,826	(1,838,139)	16,731,187
7/1/2037	13,950,000	4,278,184	(1,497,364)	16,730,820
7/1/2038	14,612,917	3,258,299	(1,140,405)	16,730,811
7/1/2039	15,310,417	2,189,949	(766,482)	16,733,884
7/1/2040	14,643,750	1,070,605	(374,712)	15,339,643
	<u>\$250,025,417</u>	<u>\$294,038,641</u>	<u>(\$93,900,871)</u>	<u>\$450,163,186</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
AZUSA

ICS-A 4.9936%

PERIOD ENDING	Total Issue		INTEREST SUBSIDY	TOTAL PROJECT
	PRINCIPAL	INTEREST*		
7/1/2014	234,240	825,948	(225,688)	834,500
7/1/2015	243,957	816,376	(225,688)	834,645
7/1/2016	256,233	804,178	(225,688)	834,723
7/1/2017	269,008	791,367	(225,688)	834,687
7/1/2018	282,324	777,916	(225,688)	834,552
7/1/2019	296,597	763,800	(225,688)	834,709
7/1/2020	311,391	748,970	(225,688)	834,673
7/1/2021	326,933	733,401	(225,688)	834,646
7/1/2022	343,225	717,054	(225,688)	834,591
7/1/2023	360,286	699,893	(225,688)	834,491
7/1/2024	378,346	681,878	(225,688)	834,537
7/1/2025	397,447	662,961	(225,688)	834,720
7/1/2026	417,879	642,287	(224,800)	835,365
7/1/2027	437,916	611,736	(214,108)	835,544
7/1/2028	458,722	579,720	(202,902)	835,540
7/1/2029	480,527	546,183	(191,164)	835,546
7/1/2030	503,352	511,051	(178,868)	835,536
7/1/2031	527,405	474,251	(165,988)	835,668
7/1/2032	552,477	435,693	(152,492)	835,677
7/1/2033	578,776	395,301	(138,355)	835,722
7/1/2034	606,116	352,987	(123,545)	835,557
7/1/2035	634,933	308,674	(108,036)	835,571
7/1/2036	665,019	262,254	(91,789)	835,484
7/1/2037	696,604	213,634	(74,772)	835,466
7/1/2038	729,707	162,706	(56,947)	835,465
7/1/2039	764,537	109,357	(38,275)	835,619
7/1/2040	731,246	53,461	(18,712)	765,996
	<u>\$12,485,203</u>	<u>\$14,683,036</u>	<u>(\$4,689,009)</u>	<u>\$22,479,230</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
BART

ICS-A 11.8310%

PERIOD ENDING	Total Issue			
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	TOTAL PROJECT
7/1/2014	554,972	1,956,872	(534,710)	1,977,134
7/1/2015	577,993	1,934,193	(534,710)	1,977,477
7/1/2016	607,078	1,905,293	(534,710)	1,977,661
7/1/2017	637,345	1,874,940	(534,710)	1,977,575
7/1/2018	668,895	1,843,072	(534,710)	1,977,257
7/1/2019	702,711	1,809,628	(534,710)	1,977,629
7/1/2020	737,761	1,774,492	(534,710)	1,977,543
7/1/2021	774,585	1,737,604	(534,710)	1,977,479
7/1/2022	813,183	1,698,875	(534,710)	1,977,348
7/1/2023	853,606	1,658,216	(534,710)	1,977,112
7/1/2024	896,395	1,615,535	(534,710)	1,977,220
7/1/2025	941,648	1,570,716	(534,710)	1,977,654
7/1/2026	990,057	1,521,734	(532,607)	1,979,184
7/1/2027	1,037,528	1,449,351	(507,273)	1,979,607
7/1/2028	1,086,824	1,373,497	(480,724)	1,979,597
7/1/2029	1,138,486	1,294,040	(452,914)	1,979,612
7/1/2030	1,192,564	1,210,805	(423,782)	1,979,587
7/1/2031	1,249,550	1,123,617	(393,266)	1,979,900
7/1/2032	1,308,951	1,032,262	(361,292)	1,979,921
7/1/2033	1,371,261	936,565	(327,798)	1,980,028
7/1/2034	1,436,036	836,312	(292,709)	1,979,638
7/1/2035	1,504,310	731,323	(255,963)	1,979,670
7/1/2036	1,575,592	621,343	(217,470)	1,979,465
7/1/2037	1,650,423	506,151	(177,153)	1,979,421
7/1/2038	1,728,853	385,489	(134,921)	1,979,420
7/1/2039	1,811,374	259,093	(90,682)	1,979,784
7/1/2040	1,732,500	126,663	(44,332)	1,814,831
	<u>\$29,580,479</u>	<u>\$34,787,679</u>	<u>(\$11,109,402)</u>	<u>\$53,258,757</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
BIGGS

ICS-A

0.4802%

PERIOD ENDING	Total Issue		INTEREST	TOTAL
	PRINCIPAL	INTEREST*	SUBSIDY	PROJECT
7/1/2014	22,527	79,431	(21,704)	80,254
7/1/2015	23,461	78,511	(21,704)	80,268
7/1/2016	24,642	77,338	(21,704)	80,275
7/1/2017	25,870	76,106	(21,704)	80,272
7/1/2018	27,151	74,812	(21,704)	80,259
7/1/2019	28,524	73,454	(21,704)	80,274
7/1/2020	29,946	72,028	(21,704)	80,270
7/1/2021	31,441	70,531	(21,704)	80,268
7/1/2022	33,008	68,959	(21,704)	80,262
7/1/2023	34,649	67,308	(21,704)	80,253
7/1/2024	36,385	65,576	(21,704)	80,257
7/1/2025	38,222	63,757	(21,704)	80,275
7/1/2026	40,187	61,769	(21,619)	80,337
7/1/2027	42,114	58,830	(20,591)	80,354
7/1/2028	44,115	55,752	(19,513)	80,354
7/1/2029	46,212	52,526	(18,384)	80,354
7/1/2030	48,407	49,148	(17,202)	80,353
7/1/2031	50,720	45,609	(15,963)	80,366
7/1/2032	53,132	41,900	(14,665)	80,367
7/1/2033	55,661	38,016	(13,306)	80,371
7/1/2034	58,290	33,947	(11,881)	80,355
7/1/2035	61,061	29,685	(10,390)	80,357
7/1/2036	63,955	25,221	(8,827)	80,348
7/1/2037	66,992	20,545	(7,191)	80,347
7/1/2038	70,176	15,647	(5,477)	80,346
7/1/2039	73,525	10,517	(3,681)	80,361
7/1/2040	70,324	5,141	(1,799)	73,666
	<u>\$1,200,699</u>	<u>\$1,412,064</u>	<u>(\$450,941)</u>	<u>\$2,161,821</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
GRIDLEY

PERIOD ENDING	Total Issue			TOTAL PROJECT
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	
7/1/2014	165,171	582,407	(159,141)	588,437
7/1/2015	172,023	575,657	(159,141)	588,539
7/1/2016	180,679	567,056	(159,141)	588,594
7/1/2017	189,687	558,022	(159,141)	588,568
7/1/2018	199,077	548,537	(159,141)	588,474
7/1/2019	209,142	538,584	(159,141)	588,584
7/1/2020	219,573	528,126	(159,141)	588,559
7/1/2021	230,533	517,148	(159,141)	588,540
7/1/2022	242,021	505,621	(159,141)	588,501
7/1/2023	254,051	493,520	(159,141)	588,430
7/1/2024	266,786	480,818	(159,141)	588,463
7/1/2025	280,254	467,478	(159,141)	588,592
7/1/2026	294,662	452,900	(158,515)	589,047
7/1/2027	308,790	431,358	(150,975)	589,173
7/1/2028	323,462	408,782	(143,074)	589,170
7/1/2029	338,838	385,134	(134,797)	589,175
7/1/2030	354,932	360,361	(126,126)	589,167
7/1/2031	371,892	334,412	(117,044)	589,260
7/1/2032	389,572	307,223	(107,528)	589,267
7/1/2033	408,116	278,741	(97,560)	589,298
7/1/2034	427,395	248,904	(87,116)	589,182
7/1/2035	447,715	217,657	(76,180)	589,192
7/1/2036	468,930	184,925	(64,724)	589,131
7/1/2037	491,201	150,641	(52,724)	589,118
7/1/2038	514,543	114,730	(40,155)	589,118
7/1/2039	539,103	77,111	(26,989)	589,226
7/1/2040	515,629	37,698	(13,194)	540,132
	<u>\$8,803,778</u>	<u>\$10,353,551</u>	<u>(\$3,306,394)</u>	<u>\$15,850,936</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
HEALDSBURG

ICS-A 2.9448%

PERIOD ENDING	Total Issue			
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	TOTAL PROJECT
7/1/2014	138,138	487,083	(133,094)	492,127
7/1/2015	143,868	481,438	(133,094)	492,212
7/1/2016	151,107	474,245	(133,094)	492,258
7/1/2017	158,641	466,690	(133,094)	492,236
7/1/2018	166,494	458,757	(133,094)	492,157
7/1/2019	174,911	450,433	(133,094)	492,250
7/1/2020	183,635	441,687	(133,094)	492,228
7/1/2021	192,801	432,505	(133,094)	492,213
7/1/2022	202,409	422,865	(133,094)	492,180
7/1/2023	212,470	412,745	(133,094)	492,121
7/1/2024	223,121	402,121	(133,094)	492,148
7/1/2025	234,385	390,965	(133,094)	492,256
7/1/2026	246,434	378,773	(132,571)	492,637
7/1/2027	258,250	360,757	(126,265)	492,742
7/1/2028	270,520	341,876	(119,657)	492,740
7/1/2029	283,380	322,098	(112,734)	492,743
7/1/2030	296,840	301,380	(105,483)	492,737
7/1/2031	311,024	279,678	(97,887)	492,815
7/1/2032	325,810	256,939	(89,929)	492,820
7/1/2033	341,319	233,119	(81,592)	492,847
7/1/2034	357,442	208,166	(72,858)	492,750
7/1/2035	374,436	182,033	(63,712)	492,758
7/1/2036	392,179	154,658	(54,130)	492,707
7/1/2037	410,805	125,986	(44,095)	492,696
7/1/2038	430,327	95,952	(33,583)	492,696
7/1/2039	450,867	64,491	(22,572)	492,786
7/1/2040	431,235	31,528	(11,035)	451,728
	<u>\$7,362,850</u>	<u>\$8,658,970</u>	<u>(\$2,765,231)</u>	<u>\$13,256,589</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
LODI

ICS-A 17.0295%

PERIOD ENDING	Total Issue			
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	TOTAL PROJECT
7/1/2014	798,823	2,816,709	(769,658)	2,845,875
7/1/2015	831,960	2,784,066	(769,658)	2,846,368
7/1/2016	873,824	2,742,468	(769,658)	2,846,634
7/1/2017	917,391	2,698,777	(769,658)	2,846,510
7/1/2018	962,803	2,652,907	(769,658)	2,846,052
7/1/2019	1,011,479	2,604,767	(769,658)	2,846,588
7/1/2020	1,061,928	2,554,193	(769,658)	2,846,464
7/1/2021	1,114,933	2,501,097	(769,658)	2,846,371
7/1/2022	1,170,491	2,445,350	(769,658)	2,846,183
7/1/2023	1,228,675	2,386,825	(769,658)	2,845,843
7/1/2024	1,290,265	2,325,392	(769,658)	2,845,999
7/1/2025	1,355,403	2,260,878	(769,658)	2,846,623
7/1/2026	1,425,081	2,190,375	(766,631)	2,848,825
7/1/2027	1,493,412	2,086,187	(730,165)	2,849,434
7/1/2028	1,564,368	1,977,004	(691,951)	2,849,421
7/1/2029	1,638,730	1,862,633	(651,921)	2,849,441
7/1/2030	1,716,569	1,742,825	(609,989)	2,849,405
7/1/2031	1,798,594	1,617,327	(566,064)	2,849,857
7/1/2032	1,884,096	1,485,832	(520,041)	2,849,887
7/1/2033	1,973,785	1,348,085	(471,830)	2,850,040
7/1/2034	2,067,021	1,203,782	(421,324)	2,849,479
7/1/2035	2,165,295	1,052,662	(368,432)	2,849,525
7/1/2036	2,267,898	894,357	(313,025)	2,849,230
7/1/2037	2,375,609	728,551	(254,993)	2,849,167
7/1/2038	2,488,500	554,871	(194,205)	2,849,166
7/1/2039	2,607,280	372,936	(130,528)	2,849,689
7/1/2040	2,493,751	182,318	(63,811)	2,612,257
	<u>\$42,577,963</u>	<u>\$50,073,174</u>	<u>(\$15,990,805)</u>	<u>\$76,660,332</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
LOMPOC

PERIOD ENDING	Total Issue			TOTAL PROJECT
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	
7/1/2014	171,175	603,576	(164,926)	609,826
7/1/2015	178,276	596,581	(164,926)	609,932
7/1/2016	187,247	587,668	(164,926)	609,989
7/1/2017	196,582	578,305	(164,926)	609,962
7/1/2018	206,313	568,476	(164,926)	609,864
7/1/2019	216,744	558,160	(164,926)	609,979
7/1/2020	227,554	547,323	(164,926)	609,952
7/1/2021	238,912	535,946	(164,926)	609,932
7/1/2022	250,818	524,000	(164,926)	609,892
7/1/2023	263,286	511,459	(164,926)	609,819
7/1/2024	276,483	498,295	(164,926)	609,853
7/1/2025	290,441	484,471	(164,926)	609,986
7/1/2026	305,372	469,363	(164,277)	610,458
7/1/2027	320,015	447,037	(156,463)	610,589
7/1/2028	335,219	423,641	(148,274)	610,586
7/1/2029	351,154	399,133	(139,696)	610,590
7/1/2030	367,834	373,460	(130,711)	610,583
7/1/2031	385,410	346,568	(121,299)	610,679
7/1/2032	403,732	318,390	(111,437)	610,686
7/1/2033	422,951	288,873	(101,106)	610,719
7/1/2034	442,930	257,951	(90,283)	610,598
7/1/2035	463,989	225,569	(78,949)	610,608
7/1/2036	485,975	191,647	(67,076)	610,545
7/1/2037	509,055	156,117	(54,641)	610,532
7/1/2038	533,246	118,900	(41,615)	610,531
7/1/2039	558,699	79,914	(27,970)	610,643
7/1/2040	534,371	39,068	(13,674)	559,766
	<u>\$9,123,785</u>	<u>\$10,729,891</u>	<u>(\$3,426,577)</u>	<u>\$16,427,099</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
PLUMAS-SIERRA

ICS-A

1.4084%

PERIOD ENDING	Total Issue			
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	TOTAL PROJECT
7/1/2014	66,067	232,957	(63,655)	235,369
7/1/2015	68,807	230,257	(63,655)	235,410
7/1/2016	72,270	226,817	(63,655)	235,432
7/1/2017	75,873	223,203	(63,655)	235,421
7/1/2018	79,629	219,409	(63,655)	235,383
7/1/2019	83,655	215,428	(63,655)	235,428
7/1/2020	87,827	211,245	(63,655)	235,418
7/1/2021	92,211	206,854	(63,655)	235,410
7/1/2022	96,806	202,243	(63,655)	235,394
7/1/2023	101,618	197,403	(63,655)	235,366
7/1/2024	106,712	192,322	(63,655)	235,379
7/1/2025	112,099	186,987	(63,655)	235,431
7/1/2026	117,862	181,156	(63,404)	235,613
7/1/2027	123,513	172,539	(60,389)	235,663
7/1/2028	129,381	163,509	(57,228)	235,662
7/1/2029	135,532	154,050	(53,917)	235,664
7/1/2030	141,969	144,141	(50,449)	235,661
7/1/2031	148,753	133,761	(46,817)	235,698
7/1/2032	155,825	122,886	(43,010)	235,701
7/1/2033	163,242	111,494	(39,023)	235,713
7/1/2034	170,954	99,559	(34,846)	235,667
7/1/2035	179,081	87,061	(30,471)	235,671
7/1/2036	187,567	73,968	(25,889)	235,646
7/1/2037	196,475	60,255	(21,089)	235,641
7/1/2038	205,812	45,891	(16,062)	235,641
7/1/2039	215,636	30,844	(10,795)	235,684
7/1/2040	206,246	15,079	(5,278)	216,047
	<u>\$3,521,422</u>	<u>\$4,141,315</u>	<u>(\$1,322,524)</u>	<u>\$6,340,213</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
POWER AND WATER RESOURCE

ICS-A

4.7824%

PERIOD ENDING	Total Issue			
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	TOTAL PROJECT
7/1/2014	224,335	791,021	(216,144)	799,211
7/1/2015	233,641	781,854	(216,144)	799,350
7/1/2016	245,397	770,172	(216,144)	799,425
7/1/2017	257,632	757,902	(216,144)	799,390
7/1/2018	270,385	745,020	(216,144)	799,261
7/1/2019	284,055	731,501	(216,144)	799,412
7/1/2020	298,223	717,298	(216,144)	799,377
7/1/2021	313,108	702,387	(216,144)	799,351
7/1/2022	328,711	686,732	(216,144)	799,298
7/1/2023	345,051	670,296	(216,144)	799,202
7/1/2024	362,347	653,043	(216,144)	799,246
7/1/2025	380,640	634,926	(216,144)	799,422
7/1/2026	400,208	615,126	(215,294)	800,040
7/1/2027	419,397	585,867	(205,054)	800,211
7/1/2028	439,324	555,205	(194,322)	800,207
7/1/2029	460,207	523,086	(183,080)	800,213
7/1/2030	482,067	489,440	(171,304)	800,203
7/1/2031	505,102	454,196	(158,969)	800,330
7/1/2032	529,114	417,268	(146,044)	800,338
7/1/2033	554,301	378,585	(132,505)	800,381
7/1/2034	580,485	338,060	(118,321)	800,224
7/1/2035	608,083	295,621	(103,467)	800,237
7/1/2036	636,897	251,164	(87,907)	800,154
7/1/2037	667,146	204,600	(71,610)	800,136
7/1/2038	698,849	155,825	(54,539)	800,136
7/1/2039	732,207	104,732	(36,656)	800,283
7/1/2040	700,324	51,201	(17,920)	733,604
	<u>\$11,957,237</u>	<u>\$14,062,129</u>	<u>(\$4,490,723)</u>	<u>\$21,528,642</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
SANTA CLARA

ICS-A 46.1588%

PERIOD ENDING	Total Issue			
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	TOTAL PROJECT
7/1/2014	2,165,232	7,634,764	(2,086,178)	7,713,818
7/1/2015	2,255,049	7,546,284	(2,086,178)	7,715,155
7/1/2016	2,368,523	7,433,531	(2,086,178)	7,715,876
7/1/2017	2,486,612	7,315,105	(2,086,178)	7,715,539
7/1/2018	2,609,702	7,190,775	(2,086,178)	7,714,299
7/1/2019	2,741,639	7,060,289	(2,086,178)	7,715,751
7/1/2020	2,878,385	6,923,208	(2,086,178)	7,715,414
7/1/2021	3,022,054	6,779,288	(2,086,178)	7,715,164
7/1/2022	3,172,647	6,628,186	(2,086,178)	7,714,655
7/1/2023	3,330,356	6,469,553	(2,086,178)	7,713,731
7/1/2024	3,497,297	6,303,035	(2,086,178)	7,714,155
7/1/2025	3,673,854	6,128,171	(2,086,178)	7,715,847
7/1/2026	3,862,721	5,937,069	(2,077,974)	7,721,815
7/1/2027	4,047,933	5,654,665	(1,979,133)	7,723,465
7/1/2028	4,240,261	5,358,721	(1,875,552)	7,723,430
7/1/2029	4,441,821	5,048,715	(1,767,050)	7,723,486
7/1/2030	4,652,805	4,723,974	(1,653,391)	7,723,388
7/1/2031	4,875,137	4,383,807	(1,534,332)	7,724,611
7/1/2032	5,106,892	4,027,386	(1,409,585)	7,724,693
7/1/2033	5,349,995	3,654,021	(1,278,907)	7,725,109
7/1/2034	5,602,715	3,262,883	(1,142,009)	7,723,588
7/1/2035	5,869,089	2,853,268	(998,644)	7,723,714
7/1/2036	6,147,196	2,424,179	(848,463)	7,722,912
7/1/2037	6,439,150	1,974,758	(691,165)	7,722,743
7/1/2038	6,745,144	1,503,991	(526,397)	7,722,739
7/1/2039	7,067,102	1,010,854	(353,799)	7,724,157
7/1/2040	6,759,377	494,178	(172,962)	7,080,592
	<u>\$115,408,689</u>	<u>\$135,724,657</u>	<u>(\$43,343,499)</u>	<u>\$207,789,847</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE ONE Series A & B
UKIAH

PERIOD ENDING	Total Issue			TOTAL PROJECT
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	
7/1/2014	150,154	529,452	(144,671)	534,935
7/1/2015	156,382	523,316	(144,671)	535,027
7/1/2016	164,251	515,497	(144,671)	535,077
7/1/2017	172,441	507,285	(144,671)	535,054
7/1/2018	180,977	498,663	(144,671)	534,968
7/1/2019	190,126	489,614	(144,671)	535,069
7/1/2020	199,609	480,108	(144,671)	535,045
7/1/2021	209,572	470,127	(144,671)	535,028
7/1/2022	220,015	459,649	(144,671)	534,993
7/1/2023	230,952	448,648	(144,671)	534,929
7/1/2024	242,529	437,100	(144,671)	534,958
7/1/2025	254,773	424,974	(144,671)	535,075
7/1/2026	267,870	411,721	(144,102)	535,489
7/1/2027	280,714	392,137	(137,248)	535,604
7/1/2028	294,052	371,614	(130,065)	535,601
7/1/2029	308,030	350,116	(122,541)	535,605
7/1/2030	322,661	327,596	(114,659)	535,598
7/1/2031	338,079	304,006	(106,402)	535,683
7/1/2032	354,151	279,289	(97,751)	535,689
7/1/2033	371,009	253,397	(88,689)	535,718
7/1/2034	388,535	226,273	(79,196)	535,612
7/1/2035	407,007	197,867	(69,254)	535,621
7/1/2036	426,293	168,111	(58,839)	535,565
7/1/2037	446,539	136,945	(47,931)	535,553
7/1/2038	467,759	104,298	(36,504)	535,553
7/1/2039	490,086	70,100	(24,535)	535,652
7/1/2040	468,746	34,270	(11,995)	491,022
	<u>\$8,003,312</u>	<u>\$9,412,176</u>	<u>(\$3,005,766)</u>	<u>\$14,409,722</u>

NORTHERN CALIFORNIA POWER AGENCY
DEBT SERVICE REQUIREMENTS
LODI ENERGY CENTER - ISSUE TWO Series A & B
CDWR

PERIOD ENDING	Total Issue			TOTAL PROJECT
	PRINCIPAL	INTEREST*	INTEREST SUBSIDY	
7/1/2014	3,981,250	7,435,054	(2,171,759)	9,244,545
7/1/2015	4,177,500	7,235,992	(2,171,759)	9,241,733
7/1/2016	4,387,917	7,027,117	(2,171,759)	9,243,274
7/1/2017	4,596,667	6,815,362	(2,171,759)	9,240,270
7/1/2018	4,744,583	6,669,587	(2,171,759)	9,242,412
7/1/2019	4,980,833	6,432,358	(2,171,759)	9,241,433
7/1/2020	5,222,917	6,184,923	(2,164,723)	9,243,117
7/1/2021	5,381,667	5,938,412	(2,078,444)	9,241,634
7/1/2022	5,582,083	5,632,787	(1,971,475)	9,243,395
7/1/2023	5,787,917	5,315,781	(1,860,523)	9,243,174
7/1/2024	6,003,333	4,987,085	(1,745,480)	9,244,938
7/1/2025	6,223,750	4,646,156	(1,626,154)	9,243,751
7/1/2026	6,450,000	4,292,709	(1,502,448)	9,240,261
7/1/2027	6,690,417	3,926,413	(1,374,245)	9,242,585
7/1/2028	6,936,250	3,546,465	(1,241,263)	9,241,452
7/1/2029	7,192,083	3,152,555	(1,103,394)	9,241,244
7/1/2030	7,457,917	2,744,116	(960,441)	9,241,592
7/1/2031	7,733,750	2,320,581	(812,203)	9,242,128
7/1/2032	8,019,583	1,881,382	(658,484)	9,242,481
7/1/2033	8,315,417	1,425,950	(499,082)	9,242,284
7/1/2034	8,621,667	953,717	(333,801)	9,241,582
7/1/2035	8,172,083	464,093	(162,432)	8,473,744
	<u>\$136,659,583</u>	<u>\$99,028,593</u>	<u>(\$33,125,145)</u>	<u>\$202,563,031</u>

Weighted Average Forward Electric Prices For Budget Run FY2015 (v3)

Electric Market Prices - \$/MWh

Load	FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Annual
ON	2015	\$ 47.23	\$ 52.81	\$ 48.55	\$ 47.95	\$ 45.88	\$ 46.86	\$ 46.31	\$ 45.69	\$ 43.34	\$ 42.08	\$ 40.13	\$ 41.65	\$ 45.83
ON	2016	\$ 48.40	\$ 50.56	\$ 48.29	\$ 47.65	\$ 45.25	\$ 46.79	\$ 46.43	\$ 45.70	\$ 43.35	\$ 42.53	\$ 41.93	\$ 43.68	\$ 45.98
ON	2017	\$ 47.90	\$ 50.24	\$ 47.85	\$ 47.60	\$ 45.50	\$ 47.13	\$ 47.59	\$ 46.94	\$ 44.40	\$ 43.07	\$ 42.55	\$ 44.13	\$ 46.32
ON	2018	\$ 51.13	\$ 53.57	\$ 51.04	\$ 48.66	\$ 46.57	\$ 48.58	\$ 49.22	\$ 48.50	\$ 46.01	\$ 44.55	\$ 43.86	\$ 45.63	\$ 48.23
ON	2019	\$ 52.78	\$ 55.32	\$ 52.88	\$ 50.04	\$ 48.11	\$ 50.16	\$ 50.98	\$ 50.32	\$ 47.71	\$ 46.31	\$ 45.61	\$ 47.46	\$ 49.91
ON	2020	\$ 55.13	\$ 57.70	\$ 55.22	\$ 52.29	\$ 50.23	\$ 52.45	\$ 52.87	\$ 52.23	\$ 49.48	\$ 48.03	\$ 47.42	\$ 49.34	\$ 52.00
ON	2021	\$ 57.22	\$ 60.07	\$ 57.43	\$ 54.43	\$ 51.82	\$ 52.86	\$ 54.81	\$ 54.11	\$ 51.28	\$ 49.25	\$ 49.50	\$ 51.54	\$ 53.82
ON	2022	\$ 60.12	\$ 63.14	\$ 60.42	\$ 55.79	\$ 53.24	\$ 54.52	\$ 56.78	\$ 56.08	\$ 53.14	\$ 50.50	\$ 51.66	\$ 53.80	\$ 55.91
ON	2023	\$ 63.16	\$ 66.44	\$ 63.54	\$ 57.22	\$ 54.70	\$ 56.38	\$ 58.85	\$ 58.13	\$ 55.07	\$ 51.75	\$ 53.90	\$ 56.14	\$ 58.13
ON	2024	\$ 66.43	\$ 69.79	\$ 66.85	\$ 58.65	\$ 56.21	\$ 58.21	\$ 61.01	\$ 60.26	\$ 57.12	\$ 53.09	\$ 56.22	\$ 58.69	\$ 60.43
OFF	2015	\$ 36.50	\$ 42.22	\$ 39.74	\$ 41.10	\$ 40.07	\$ 40.46	\$ 41.78	\$ 40.81	\$ 37.19	\$ 33.82	\$ 33.09	\$ 33.32	\$ 38.41
OFF	2016	\$ 37.35	\$ 40.84	\$ 40.35	\$ 40.83	\$ 39.76	\$ 41.26	\$ 42.33	\$ 41.41	\$ 37.63	\$ 36.66	\$ 34.53	\$ 30.88	\$ 38.73
OFF	2017	\$ 37.46	\$ 41.03	\$ 40.52	\$ 41.26	\$ 40.41	\$ 42.06	\$ 44.19	\$ 43.16	\$ 39.17	\$ 37.95	\$ 35.88	\$ 31.94	\$ 39.64
OFF	2018	\$ 38.95	\$ 42.57	\$ 42.12	\$ 42.94	\$ 42.09	\$ 44.04	\$ 46.06	\$ 45.08	\$ 40.79	\$ 39.52	\$ 37.10	\$ 32.56	\$ 41.21
OFF	2019	\$ 40.43	\$ 44.18	\$ 43.76	\$ 44.67	\$ 43.78	\$ 45.96	\$ 48.05	\$ 47.01	\$ 42.65	\$ 41.39	\$ 38.91	\$ 34.17	\$ 42.92
OFF	2020	\$ 42.42	\$ 46.39	\$ 46.03	\$ 47.07	\$ 46.16	\$ 48.41	\$ 49.82	\$ 48.82	\$ 44.23	\$ 42.91	\$ 40.43	\$ 35.40	\$ 44.90
OFF	2021	\$ 44.00	\$ 48.36	\$ 47.88	\$ 48.42	\$ 47.41	\$ 48.61	\$ 51.78	\$ 50.61	\$ 45.91	\$ 44.61	\$ 41.73	\$ 36.50	\$ 46.40
OFF	2022	\$ 45.67	\$ 50.24	\$ 49.74	\$ 50.25	\$ 49.27	\$ 50.78	\$ 53.84	\$ 52.52	\$ 47.65	\$ 46.37	\$ 43.04	\$ 37.63	\$ 48.17
OFF	2023	\$ 47.45	\$ 52.14	\$ 51.67	\$ 52.15	\$ 51.23	\$ 53.03	\$ 55.98	\$ 54.49	\$ 49.44	\$ 48.19	\$ 44.38	\$ 38.79	\$ 50.00
OFF	2024	\$ 49.29	\$ 54.15	\$ 53.67	\$ 54.12	\$ 53.27	\$ 55.38	\$ 58.21	\$ 56.59	\$ 51.30	\$ 50.13	\$ 45.76	\$ 40.05	\$ 51.85

Simple Average Forward Gas Prices For Budget Run FY2015

Natural Gas Prices (\$/MMBtu at PG&E CG)

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Annual
2015	\$ 4.30	\$ 4.33	\$ 4.31	\$ 4.33	\$ 4.39	\$ 4.47	\$ 4.49	\$ 4.48	\$ 4.42	\$ 4.23	\$ 4.23	\$ 4.25	\$ 4.35
2016	\$ 4.27	\$ 4.28	\$ 4.27	\$ 4.29	\$ 4.34	\$ 4.46	\$ 4.55	\$ 4.53	\$ 4.47	\$ 4.18	\$ 4.18	\$ 4.21	\$ 4.34
2017	\$ 4.23	\$ 4.24	\$ 4.24	\$ 4.26	\$ 4.39	\$ 4.53	\$ 4.61	\$ 4.59	\$ 4.52	\$ 4.26	\$ 4.27	\$ 4.29	\$ 4.37
2018	\$ 4.32	\$ 4.34	\$ 4.34	\$ 4.36	\$ 4.47	\$ 4.65	\$ 4.73	\$ 4.71	\$ 4.64	\$ 4.36	\$ 4.37	\$ 4.39	\$ 4.47
2019	\$ 4.42	\$ 4.44	\$ 4.44	\$ 4.47	\$ 4.59	\$ 4.77	\$ 4.86	\$ 4.84	\$ 4.77	\$ 4.53	\$ 4.55	\$ 4.57	\$ 4.60
2020	\$ 4.61	\$ 4.63	\$ 4.80	\$ 4.84	\$ 4.95	\$ 5.16	\$ 5.28	\$ 5.26	\$ 5.19	\$ 4.94	\$ 4.96	\$ 5.00	\$ 4.97
2021	\$ 5.04	\$ 5.06	\$ 5.04	\$ 5.03	\$ 5.09	\$ 5.15	\$ 5.47	\$ 5.45	\$ 5.37	\$ 5.10	\$ 5.12	\$ 5.15	\$ 5.17
2022	\$ 5.20	\$ 5.23	\$ 5.20	\$ 5.20	\$ 5.27	\$ 5.34	\$ 5.66	\$ 5.64	\$ 5.56	\$ 5.26	\$ 5.28	\$ 5.32	\$ 5.35
2023	\$ 5.37	\$ 5.40	\$ 5.38	\$ 5.38	\$ 5.47	\$ 5.55	\$ 5.87	\$ 5.84	\$ 5.75	\$ 5.42	\$ 5.45	\$ 5.49	\$ 5.53
2024	\$ 5.54	\$ 5.58	\$ 5.55	\$ 5.56	\$ 5.67	\$ 5.76	\$ 6.08	\$ 6.05	\$ 5.96	\$ 5.59	\$ 5.62	\$ 5.66	\$ 5.72

Northern California Power Agency
Capacity Factor and Generation - GWh
Ten Years - FY2015 to FY2024

TOTAL PROJECT ANNUAL CAPACITY FACTOR BY RESOURCE 3%

Annual Capacity Factor - FY												
Type	Resource Name	Installed Capacity (MW*)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Hydro	Collierville	246.9	18.5%	19.8%	19.8%	19.8%	19.8%	19.8%	19.8%	19.8%	19.8%	19.8%
	NSM	6.1	28.9%	33.4%	33.5%	33.5%	33.5%	33.5%	33.5%	33.5%	33.5%	33.4%
Geothermal	Geo	NA **										
Gas	CT1_AL1	23.8										
	CT1_AL2	25.4										
	CT1_LD	25.3										
	STIG	49.9	0.8%	0.6%	0.2%	0.2%	0.5%	0.5%	0.2%	0.4%	0.7%	1.1%
	LEC	280	44.9%	40.4%	33.2%	29.5%	24.4%	22.2%	23.5%	23.9%	23.7%	23.6%
WAPA	Western BR	1895.0	19%	19%	19%	19%	19%	19%	19%	19%	19%	19%
Member Contracts	AL-PA_High Winds	30	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%
	PA_Shiloh Wind	25	34%	34%	34%	34%	34%	34%	34%	8%		
	AL_Richmond_LFG	2.5	90%	90%	90%	90%	90%	15%				
	AL_Butte_LFG		88%	88%	88%	88%	88%	88%	88%	88%	88%	88%
	AL-PA_OxMtn_LFG	10.6	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	AL-PA_KellerCanyon_LFG	3.8	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
	AL-PA_SantaCruz_LFG	3.0	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%
	PA_JohnsonCyn_LFG	1.4	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%
	PA_San_Joaquin_LFG	4.1	93%	93%	93%	93%	93%	93%	93%	93%	93%	93%
	PA-Brannon Solar	20.0	24%	27%	27%	26%	26%	26%	26%	26%	25%	25%
	PA-Blue Sky Solar 20 MW	20.0			13%	25%	25%	25%	25%	25%	24%	24%
	PA-Elevation Solar 40 MW	40.0			7%	13%	13%	13%	13%	13%	13%	13%
	PA-Frontier Solar 20 MW	20.0			13%	25%	25%	25%	25%	25%	24%	24%
	PO EBMUD 1MW 2012-17	1.0	100%	100%	100%	33%						
	PS_HighSierra1	3.3	96%	96%	97%	97%	98%	97%	97%	97%	97%	98%
	PS_HighSierra2	3.3	83%	84%	85%	87%	88%	87%	86%	86%	87%	88%
	UK_Mendo	3.5	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%
NCPA Contracts	Graeagle	0.44	52%	52%	52%	52%	52%	52%	52%	52%	52%	52%
	SCL_Supply	58.3	20%	20%	20%	17%						
	GR PV Main	1.0	21%	21%	21%	21%	21%	21%	21%	20%	20%	20%
	BART PV	2.5	21%	21%	21%	21%	21%	21%	21%	20%	20%	20%

* Pmax, if available, for certain units from NCPA MARS system - 2010-01-06.

** Geo Capacity varies base on both normal steam decline as well as maximum steam draw. Units are normally run baseload.

Generation - GWh												
Type	Resource Name	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Hydro	Collierville	459,018	493,616	493,616	493,616	493,616	493,616	493,616	493,616	493,617	493,616	
	NSM	19,518	22,602	22,602	22,602	22,602	22,602	22,602	22,602	22,602	22,602	
Geothermal	Geo	830,160	853,106	828,072	804,062	778,814	754,200	740,095	737,657	715,373	702,720	
Gas	CT1_AL1	-	-	-	-	-	-	-	-	-	-	
	CT1_AL2	-	-	-	-	-	-	-	-	-	-	
	CT1_LD	-	-	-	-	-	-	-	-	-	-	
	STIG	4,139	3,155	0,850	0,818	2,773	2,401	0,833	1,918	3,767	5,584	
	LEC	1,207,543	1,093,800	899,661	795,996	662,692	603,207	637,248	648,528	644,111	641,141	
	Western BR	2,479.5	3,056.0	3,340.0	3,340.0	3,340.0	3,340.0	3,340.0	3,340.0	3,339.9	3,339.9	
WAPA Member Contracts	AL-PA_High Winds	87,055	87,169	87,055	87,055	87,055	87,169	87,055	87,055	87,055	87,169	
	PA_Shiloh Wind	75,277	75,372	75,277	75,277	75,277	75,372	75,277	11,724	-	-	
	AL_Richmond_LFG	19,710	19,764	19,710	19,710	19,710	3,348	-	-	-	-	
	AL_Butte_LFG	16,644	16,690	16,644	16,644	16,644	16,690	16,644	16,644	16,644	16,690	
	AL-PA_OxMtn_LFG	93,031	93,286	93,031	93,031	93,031	93,286	93,031	93,031	93,031	93,286	
	AL-PA_KellerCanyon_LFG	28,032	28,109	28,032	28,032	28,032	28,109	28,032	28,032	28,032	28,109	
	AL-PA_SantaCruz_LFG	22,776	22,838	22,776	22,776	22,776	22,838	22,776	22,776	22,776	22,838	
	PA_JohnsonCyn_LFG	11,414	11,446	11,414	11,414	11,414	11,446	11,414	11,414	11,414	11,446	
	PA_San_Joaquin_LFG	35,627	35,725	35,627	35,627	35,627	35,725	35,627	35,627	35,627	35,725	
	PA-Brannon Solar	44,425	50,403	50,050	49,699	49,351	49,006	48,663	48,322	47,984	47,909	
	PA-Blue Sky Solar 20 MW	-	-	24,349	47,559	47,256	46,955	46,655	46,354	46,056	45,759	
	PA-Elevation Solar 40 MW	-	-	25,695	49,664	49,324	48,988	48,653	48,321	47,984	47,648	
	PA-Frontier Solar 20 MW	-	-	24,349	47,559	47,256	46,955	46,655	46,354	46,056	45,759	
	PO EBMUD 1MW 2012-17	8,760	8,784	8,760	2,952	-	-	-	-	-	-	-
	PS_HighSierra1	28,076	28,433	28,507	28,584	28,666	28,640	28,534	28,599	28,633	28,693	
	PS_HighSierra2	24,541	25,069	25,084	25,747	25,949	25,739	25,314	25,542	25,773	25,996	
NCPA Contracts	UK_Mendo	12,093	12,118	12,093	12,093	12,093	12,118	12,093	12,093	12,093	12,118	
	Graeagle	2,004	2,010	2,004	2,004	2,004	2,010	2,004	2,004	2,004	2,010	
	SCL_Supply	87,936	87,936	87,936	66,966	-	-	-	-	-	-	
	GR PV Main	1,995	1,989	1,976	1,966	1,956	1,949	1,936	1,926	1,917	1,915	
	BART PV	4,987	4,972	4,940	4,915	4,890	4,873	4,840	4,816	4,792	4,788	

Northern California Power Agency
Gas Plant Generation GHG Estimate
Ten Years - FY2015 to FY2024

LEC forecasted Generation - Expected Energy in MWh per Fiscal Year per Participant

FY	Biggs	Gridley	Healds	Lodi	Lompoc	Plumas	Ukiah	BART	SVP	Azusa	CDWR	MID	PWRPA	Total
2015	3,235	23,720	19,838	114,717	24,582	9,488	21,583	79,698	310,942	33,639	404,527	129,380	32,216	1,207,543
2016	2,930	21,486	17,969	103,911	22,266	8,594	19,532	72,191	281,653	30,470	366,423	117,193	29,181	1,093,800
2017	2,410	17,672	14,780	85,468	18,314	7,089	16,065	59,378	231,663	25,062	301,386	96,392	24,002	899,661
2018	2,132	15,636	13,077	75,620	16,204	6,254	14,214	52,536	204,969	22,174	266,659	85,285	21,236	795,996
2019	1,776	13,017	10,887	62,956	13,480	5,207	11,834	43,738	170,643	18,461	222,002	71,003	17,680	662,692
2020	1,616	11,649	9,909	57,305	12,279	4,739	10,771	39,812	155,326	16,804	202,074	64,629	16,093	603,207
2021	1,707	12,617	10,469	60,539	12,972	5,007	11,379	42,059	164,091	17,752	213,478	66,277	17,001	637,248
2022	1,737	12,739	10,654	61,610	13,202	5,095	11,581	42,803	166,996	18,066	217,257	69,485	17,302	648,528
2023	1,726	12,652	10,581	61,191	13,112	5,051	11,502	42,511	165,859	17,943	215,777	69,012	17,164	644,111
2024	1,718	12,694	10,533	60,908	13,062	5,037	11,449	42,316	165,094	17,860	214,782	68,694	17,105	641,141

GHG Estimated Obligations - Allowances (MTs) 0.371

FY	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Plumas	Ukiah	BART	SVP	Azusa	CDWR	MID	PWRPA	Total
2015	1,200	8,800	7,360	42,560	9,120	3,520	8,000	29,568	115,360	12,480	150,079	48,000	11,952	447,998
2016	1,087	7,971	6,666	38,551	8,261	3,188	7,246	26,783	104,493	11,304	135,943	43,479	10,826	401,800
2017	894	6,556	5,483	31,709	6,795	2,622	5,960	22,029	85,947	9,298	111,814	35,762	8,905	333,774
2018	791	5,801	4,851	28,055	6,012	2,320	5,273	19,491	76,044	8,227	98,930	31,641	7,879	295,315
2019	659	4,829	4,039	23,357	5,005	1,932	4,390	16,227	63,309	6,849	82,363	26,342	6,559	245,859
2020	600	4,396	3,676	21,260	4,556	1,758	3,996	14,770	57,626	6,234	74,970	23,977	5,970	223,790
2021	633	4,644	3,884	22,460	4,813	1,858	4,222	15,604	60,878	6,586	79,200	25,331	6,307	236,419
2022	645	4,726	3,953	22,857	4,898	1,890	4,296	15,880	61,956	6,703	80,602	25,779	6,419	240,604
2023	640	4,694	3,926	22,702	4,865	1,878	4,267	15,772	61,534	6,657	80,053	25,603	6,375	238,965
2024	637	4,672	3,908	22,597	4,842	1,869	4,248	15,699	61,250	6,626	79,684	25,485	6,346	237,863

GHG Allowances - Allocated or Purchased

FY	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Plumas	Ukiah	BART	SVP	Azusa	CDWR	MID	PWRPA	Total
2015	-	-	-	-	4,000	-	-	-	-	-	-	-	-	4,000
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Net Short/(Long) GHG Allowances by Member

FY	Biggs	Gridley	Healds.	Lodi	Lompoc	Plumas	Ukiah	BART	SVP	Azusa	CDWR	MID	PWRPA	Total
2015	1,200	8,800	7,360	42,560	9,120	3,520	8,000	29,568	115,360	12,480	150,079	48,000	11,952	447,998
2016	1,087	7,971	6,666	38,551	8,261	3,188	7,246	26,783	104,493	11,304	135,943	43,479	10,826	401,800
2017	894	6,556	5,483	31,709	6,795	2,622	5,960	22,029	85,947	9,298	111,814	35,762	8,905	333,774
2018	791	5,801	4,851	28,055	6,012	2,320	5,273	19,491	76,044	8,227	98,930	31,641	7,879	295,315
2019	659	4,829	4,039	23,357	5,005	1,932	4,390	16,227	63,309	6,849	82,363	26,342	6,559	245,859
2020	600	4,396	3,676	21,260	4,556	1,758	3,996	14,770	57,626	6,234	74,970	23,977	5,970	223,790
2021	633	4,644	3,884	22,460	4,813	1,858	4,222	15,604	60,878	6,586	79,200	25,331	6,307	236,419
2022	645	4,726	3,953	22,857	4,898	1,890	4,296	15,880	61,956	6,703	80,602	25,779	6,419	240,604
2023	640	4,694	3,926	22,702	4,865	1,878	4,267	15,772	61,534	6,657	80,053	25,603	6,375	238,965
2024	637	4,672	3,908	22,597	4,842	1,869	4,248	15,699	61,250	6,626	79,684	25,485	6,346	237,863

ESTIMATED COST OF GHG OBLIGATIONS - LEC (by Fiscal Year - in \$)

FY	BIG	GRI	HEA	LOD	LOM	PLU	UKI	BART	SVP	Azusa	CDWR	MID	PWRPA	Total
2015	\$ 14,697	\$ 107,704	\$ 90,126	\$ 521,184	\$ 111,681	\$ 43,105	\$ 97,968	\$ 362,086	\$ 1,412,682	\$ 152,828	\$ 1,837,859	\$ 587,802	\$ 146,365	\$ 5,486,145
2016	\$ 15,094	\$ 110,673	\$ 92,559	\$ 535,253	\$ 114,696	\$ 44,268	\$ 100,811	\$ 371,860	\$ 1,450,816	\$ 156,953	\$ 1,887,470	\$ 603,669	\$ 150,316	\$ 5,634,238
2017	\$ 14,548	\$ 106,670	\$ 89,211	\$ 515,800	\$ 110,547	\$ 42,867	\$ 96,971	\$ 358,408	\$ 1,398,333	\$ 151,275	\$ 1,819,191	\$ 581,831	\$ 144,878	\$ 5,430,420
2018	\$ 16,530	\$ 121,200	\$ 101,363	\$ 586,164	\$ 125,606	\$ 48,478	\$ 110,180	\$ 407,230	\$ 1,588,814	\$ 171,882	\$ 2,067,001	\$ 661,089	\$ 164,513	\$ 6,170,162
2019	\$ 20,044	\$ 146,970	\$ 122,915	\$ 710,795	\$ 152,312	\$ 58,786	\$ 133,607	\$ 493,815	\$ 1,926,628	\$ 208,427	\$ 2,506,486	\$ 801,649	\$ 198,814	\$ 7,482,049
2020	\$ 22,982	\$ 168,512	\$ 140,931	\$ 814,977	\$ 174,637	\$ 67,403	\$ 153,190	\$ 566,195	\$ 2,209,017	\$ 238,977	\$ 2,873,867	\$ 919,149	\$ 228,871	\$ 8,578,708
2021	\$ 26,126	\$ 191,564	\$ 160,211	\$ 928,468	\$ 198,527	\$ 75,624	\$ 174,147	\$ 643,651	\$ 2,511,215	\$ 271,670	\$ 3,267,017	\$ 1,044,890	\$ 260,161	\$ 9,752,290
2022	\$ 27,395	\$ 200,863	\$ 167,987	\$ 971,438	\$ 208,164	\$ 80,343	\$ 182,600	\$ 674,894	\$ 2,633,109	\$ 284,856	\$ 3,425,598	\$ 1,095,608	\$ 272,811	\$ 10,225,965
2023	\$ 28,008	\$ 205,382	\$ 171,750	\$ 993,199	\$ 212,827	\$ 82,143	\$ 186,690	\$ 690,012	\$ 2,692,092	\$ 291,237	\$ 3,502,334	\$ 1,120,151	\$ 276,922	\$ 10,454,727
2024	\$ 28,676	\$ 210,256	\$ 175,843	\$ 1,016,865	\$ 217,898	\$ 84,100	\$ 191,138	\$ 706,454	\$ 2,756,239	\$ 298,177	\$ 3,585,787	\$ 1,146,842	\$ 285,568	\$ 10,703,842

STIG forecasted Generation - MWh

FY	Alameda	Lodi	Lompoc	Roseville	Total
2015	786	1,635	-	1,718	4,139
2016	600	1,246	-	1,309	3,155
2017	162	336	-	353	850
2018	155	323	-	339	818
2019	527	1,095	-	1,151	2,773
2020	456	946	-	996	2,401
2021	158	329	-	346	833
2022	364	758	-	796	1,918
2023	716	1,488	-	1,563	3,767
2024	1,061	2,206	-	2,318	5,584

GHG Estimated Obligations (<25,000 mT/plant -> no obligation) 0.478

FY	Alameda	Lodi	Lompoc	Roseville	Total
2015	376	781	-	820	1,977
2016	286	595	-	625	1,507
2017	77	160	-	169	406
2018	74	154	-	162	391
2019	252	523	-	550	1,324
2020	218	453	-	476	1,147
2021	76	157	-	165	398
2022	174	362	-	380	916
2023	342	711	-	747	1,799
2024	507	1,054	-	1,107	2,667

GHG Allowances - Allocated or Purchased

FY	Alameda	Lodi	Lompoc	Roseville	Total
2015	-	-	-	-	-
2016	-	-	-	-	-
2017	-	-	-	-	-
2018	-	-	-	-	-
2019	-	-	-	-	-
2020	-	-	-	-	-
2021	-	-	-	-	-
2022	-	-	-	-	-
2023	-	-	-	-	-
2024	-	-	-	-	-

Net Short/(Long) GHG Allowances by Member

FY	Alameda	Lodi	Lompoc	Roseville	Total
2015	-	-	-	-	-
2016	-	-	-	-	-
2017	-	-	-	-	-
2018	-	-	-	-	-
2019	-	-	-	-	-
2020	-	-	-	-	-
2021	-	-	-	-	-
2022	-	-	-	-	-
2023	-	-	-	-	-
2024	-	-	-	-	-

	CY	CCA	FY (est)	CCA
2014	\$ 11.67		2015	\$ 12.25
2015	\$ 12.82		2016	\$ 13.88
2016	\$ 14.95		2017	\$ 16.27
2017	\$ 17.59		2018	\$ 20.89
2018	\$ 24.20		2019	\$ 30.43
2019	\$ 36.67		2020	\$ 38.33
2020	\$ 40.00		2021	\$ 41.25
2021	\$ 42.50		2022	\$ 42.50
2022	\$ 42.50		2023	\$ 43.75
2023	\$ 45.00		2024	\$ 45.00
2024	\$ 45.00			

LEC GAS OFFTAKE & COSTS - TOTAL PLANT OFFTAKE

FY	7	8	9	10	11	12	1	2	3	4	5	6	Total
2015	666,404	1,139,450	889,500	1,098,843	923,799	881,074	884,643	603,574	311,113	389,676	185,821	297,772	8,271,670
2016	721,481	1,014,506	844,208	884,246	822,824	860,065	643,681	385,600	243,887	465,581	260,598	345,852	7,492,529
2017	532,769	976,913	654,011	784,976	634,248	807,958	657,552	301,290	217,693	164,907	193,697	236,662	6,162,676
2018	543,635	988,140	747,493	795,518	508,284	695,898	469,348	298,866	93,804	25,064	116,393	170,132	5,452,574
2019	456,662	705,292	584,312	615,575	385,778	485,761	491,171	339,815	122,087	72,925	112,273	167,810	4,539,440
2020	535,793	737,560	508,544	538,807	334,025	439,297	435,337	339,302	-	18,084	73,321	171,895	4,131,965
2021	475,066	735,169	644,174	628,624	382,560	520,129	400,662	291,673	20,345	-	90,208	176,541	4,365,152
2022	550,054	749,239	726,267	580,659	361,888	464,272	403,142	283,557	20,345	-	103,726	199,288	4,442,417
2023	558,028	763,398	752,438	527,370	315,400	470,630	385,632	288,192	-	-	134,592	206,480	4,412,161
2024	582,818	813,527	752,486	463,030	290,571	474,179	398,161	275,471	-	-	127,909	213,660	4,391,813
TOTAL	5,622,711	8,623,193	7,103,432	6,917,648	4,959,358	6,099,265	5,169,329	3,417,341	1,029,254	1,136,237	1,398,537	2,186,091	53,662,396

COST

FY	7	8	9	10	11	12	1	2	3	4	5	6	Total
2015	\$ 3,284,002	\$ 5,608,327	\$ 4,400,498	\$ 5,406,628	\$ 4,607,344	\$ 4,492,161	\$ 4,508,496	\$ 3,067,041	\$ 1,565,598	\$ 1,883,879	\$ 897,832	\$ 1,445,322	\$ 41,167,130
2016	3,534,921	4,946,671	4,148,845	4,318,477	4,065,526	4,379,645	3,329,117	1,977,039	1,236,179	2,223,750	1,249,963	1,664,437	37,074,570
2017	2,597,171	4,725,928	3,192,312	3,815,864	3,162,494	4,172,808	3,448,797	1,564,286	1,115,526	803,413	944,704	1,159,592	30,702,894
2018	2,702,263	4,873,645	3,718,635	3,951,848	2,580,046	3,687,749	2,506,537	1,587,231	491,351	124,751	578,779	850,288	27,653,123
2019	2,316,398	3,548,327	2,976,202	3,116,657	2,003,890	2,631,959	2,689,951	1,850,617	657,213	374,493	578,137	870,345	23,614,191
2020	2,809,835	3,852,096	2,783,770	2,930,160	1,855,837	2,558,466	2,568,191	1,989,916	-	100,484	409,011	964,934	22,822,699
2021	2,700,870	4,170,036	3,667,128	3,538,166	2,181,934	3,010,740	2,445,321	1,766,923	121,696	-	518,235	1,019,630	25,140,681
2022	3,218,949	4,379,148	4,259,747	3,374,401	2,130,490	2,782,262	2,541,561	1,773,346	125,598	-	613,447	1,184,216	26,383,166
2023	3,370,201	4,590,028	4,546,373	3,159,286	1,918,879	2,920,479	2,515,358	1,925,414	-	-	817,591	1,262,261	27,025,871
2024	3,625,645	5,037,459	4,680,518	2,861,608	1,827,244	3,053,515	2,669,949	1,836,241	-	-	798,508	1,345,056	27,735,744
TOTAL	\$ 30,160,255	\$ 45,731,665	\$ 38,374,029	\$ 36,473,097	\$ 26,333,685	\$ 33,689,785	\$ 29,223,280	\$ 19,338,054	\$ 5,313,161	\$ 5,510,770	\$ 7,406,207	\$ 11,766,081	\$ 289,320,070

NET EXPOSURE - FUEL COST - in \$1000s

FY	BIGGS	GRIDLEY	HEALDS	LODI	LOMPOC	PLUMAS	UKIAH	BART	SVP	AZUSA	CDWR	MID	PWRPA	TOTAL
2015	\$ 110,287	\$ 808,646	\$ 676,294	\$ 3,910,877	\$ 838,039	\$ 323,450	\$ 735,121	\$ 2,717,031	\$ 10,600,536	\$ 1,146,793	\$ 13,790,988	\$ 4,410,770	\$ 1,098,298	\$ 41,167,130
2016	99,323	728,256	609,061	3,522,084	754,727	291,295	662,041	2,446,922	9,546,702	1,032,786	12,419,981	3,972,281	989,112	37,074,570
2017	82,253	603,097	504,387	2,916,775	625,019	241,233	548,262	2,026,391	7,905,995	855,291	10,285,470	3,289,600	819,123	30,702,894
2018	74,083	543,190	454,286	2,627,047	562,935	217,271	493,802	1,825,106	7,120,679	770,333	9,263,796	2,962,839	737,758	27,653,123
2019	63,262	463,854	387,934	2,243,348	480,714	185,537	421,679	1,558,537	6,080,654	657,821	7,910,754	2,530,095	630,003	23,614,191
2020	61,142	448,306	374,931	2,168,156	464,602	179,318	407,545	1,506,298	5,876,845	635,772	7,645,604	2,445,292	608,887	22,822,699
2021	67,352	493,838	413,011	2,388,365	511,789	197,530	448,937	1,659,285	6,473,725	700,344	8,422,128	2,693,648	670,728	25,140,681
2022	70,681	518,245	433,423	2,506,401	537,082	207,293	471,124	1,741,289	6,793,665	734,956	8,838,361	2,826,772	703,876	26,383,166
2023	72,402	530,869	443,981	2,567,458	550,166	212,342	482,601	1,783,707	6,959,162	752,860	9,053,667	2,895,633	721,023	27,025,871
2024	74,304	544,813	455,643	2,634,896	564,617	217,920	495,277	1,830,559	7,141,954	772,635	9,291,474	2,971,691	739,962	27,735,744
TOTAL	\$ 775,088	\$ 5,683,114	\$ 4,752,950	\$ 27,485,407	\$ 5,889,689	\$ 2,273,188	\$ 5,166,388	\$ 19,095,125	\$ 74,499,918	\$ 8,059,589	\$ 96,922,223	\$ 30,998,620	\$ 7,718,770	\$ 289,320,070

LEC - TOTAL FUEL OFFTAKE - in 1000 MMBtus

FY	BIGGS	GRIDLEY	HEALDS	LODI	LOMPOC	PLUMAS	UKIAH	BART	SVP	AZUSA	CDWR	MID	PWRPA	TOTAL
2015	22.160	162.480	135.887	785.809	168.386	64.991	147.707	545.930	2,129.955	230.424	2,771.009	886.252	220.680	8,271.670
2016	20.072	147.176	123.087	711.790	152.525	58.869	133.794	494.507	1,929.326	208.719	2,509.997	802.772	199.893	7,492.529
2017	16.510	121.053	101.240	585.454	125.454	48.420	110.047	406.737	1,586.889	171.674	2,064.496	660.288	164.414	6,162.676
2018	14.607	107.105	89.575	517.995	110.998	42.841	97.367	359.870	1,404.038	151.892	1,826.612	584.205	145.469	5,452.574
2019	12.161	89.168	74.574	431.247	92.409	35.666	81.061	299.603	1,168.906	126.455	1,520.713	486.369	121.108	4,539.440
2020	11.070	81.164	67.880	392.537	84.114	32.465	73.784	272.710	1,063.981	115.104	1,384.208	442.711	110.237	4,131.965
2021	11.694	85.745	71.711	414.689	88.861	34.297	77.949	288.100	1,124.027	121.600	1,462.326	467.695	116.458	4,365.152
2022	11.901	87.262	72.980	422.030	90.434	34.904	79.328	293.200	1,143.922	123.752	1,488.210	475.974	118.519	4,442.417
2023	11.820	86.668	72.483	419.155	89.818	34.666	78.788	291.203	1,136.131	122.910	1,478.074	472.732	117.712	4,412.161
2024	11.766	86.268	72.149	417.222	89.404	34.506	78.425	289.860	1,130.892	122.343	1,471.257	470.552	117.169	4,391.813
TOTAL	143.762	1,054,090	881,566	5,097,928	1,092,405	421,625	958,249	3,541,718	13,818,067	1,494,873	17,976,903	5,749,550	1,431,659	53,662,396



651 Commerce Drive
Roseville, CA 95678

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

Lodi Energy Center Project Participant Committee Staff Report

AGENDA ITEM NO.: 13

Date: March 6, 2014
To: Lodi Energy Center Project Participant Committee
Subject: Approval of updated Exhibit 8 of PMOA Agreement Schedule 1.00

Background

NCPA and the LEC Project Participants executed the Lodi Energy Center Project Management and Operations Agreement (PMOA), which became effective on August 1, 2010. The PMOA contains multiple Schedules, which provide procedures and protocols, and guidelines regarding Project operations. Pursuant to the PMOA, Schedules can be revised, deleted or added from time to time based on then existing operating or market conditions, and subject to the approval of the Project Participant Committee (PPC), and with regard to certain Schedules, approval additionally by the NCPA Commission when such Schedules "...could be reasonably viewed as having an impact on other NCPA projects." (PMOA, Article 10).

Staff is recommending changes to Exhibit 8 of PMOA Agreement Schedule 1.00, which identifies CAISO settlement charge codes that are applicable to the LEC Project and their respective allocation basis to Project Participants. A completed "marked" version of the proposed Exhibit 8 is attached to this staff report reflecting the specific changes staff is recommending.

Updates to Exhibit 8 are necessary to reflect changes associated with a number of new or retired settlements charge codes to be implemented in conjunction with the CAISO's new fifteen-minute market¹ structure that is scheduled to begin on April 1, 2014.

Fiscal Impact

No significant costs will be incurred to implement the changes to the PMOA Schedules and funds are available in the NCPA budget to support the work associated with these contract updates.

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.

¹ The CAISO's implementation of a new fifteen-minute market is in response to FERC Order #764, which is intended to remove barriers to the integration of variable energy resources by providing the option for intra-hour scheduling changes on a fifteen-minute interval basis. This CAISO initiative also introduces a change to more granular five-minute settlement data results.

Recommendation

NCPA staff recommends that the PPC pass a motion approving changes to Exhibit 8 of PMOA Schedule 1.00 as attached to this staff report and described herein.

Respectfully submitted,

Prepared by:

DONNA STEVENER
Assistant General Manager/CFO

ROBERT CARACRISTI
Manager, Information Services and Power
Settlements

Attachments

– Marked up copy of Exhibit 8 of PMOA Agreement Schedule 1.00

EXHIBIT

8

Settlement of CAISO Charge Codes and Allocations to Participants

The Project will utilize NCPA's current CAISO SCID. The CAISO Settlement Charges shall be determined by the CAISO Tariff and is typically available on the CAISO's website as "ISO Market Charge Codes Matrix" that the CAISO updates periodically. Below is a subset of CAISO Market Charge Codes that apply to the Project.

Charge Code	Charge Code Name	Short Description	Allocation Basis
4470	Negative- Uninstructed- Deviation Penalty	Accounts for charges assessed for Uninstructed- Imbalance Energy quantities that result from- Resource deviations below a tolerance band from- their Dispatch Operating Point or Day Ahead- Schedule. This charge has not been approved by FERC, but is- captured here in the event of FERC approval.	Generation Entitlement- Share
4480	Positive- Uninstructed- Deviation Penalty	Accounts for charges assessed for Uninstructed- Imbalance Energy quantities that result from- Resource deviations above a tolerance band from- their Dispatch Operating Point or Day Ahead- Schedule. This charge has not been approved by FERC, but is- captured here in the event of FERC approval.	Generation Entitlement- Share
4512	GMC Inter- Scheduling Coordinator Trade Transaction Fee	Accounts for Inter-SC Trade (IST) Schedules in both the Day Ahead and Real Time Markets.	Allocated to the Project Participant/s who initiated the Trade based on unique scheduling SC IST name
4515	GMC Bid Transaction Fee	Accounts for the CAISO fee per bid segment for each Resource's final Clean Bids, Self Schedules, and Self Provisions.	Generation Entitlement Share
4560	GMC Market Services Charge	Designed to recover costs the CAISO incurs for implementing and running the Markets.	Generation Entitlement Share

Charge Code	Charge Code Name	Short Description	Allocation Basis
4561	GMC System Operations Charge	Designed to recover costs the CAISO incurs for running the Grid in Real Time.	Generation Entitlement Share
6124	No Pay Spinning Reserve Settlement	Rescinds payments for Day Ahead, HASP, and Real Time Spinning Reserve Awards in the event the Resource does not fulfill the requirements associated with that payment.	Generation Entitlement Share
6486	Real Time Excess Cost for Instructed Energy Allocation	Allocates the excess cost payments to Scheduling Coordinators.	Generation Entitlement Share
6524	No Pay Regulation Up Settlement	Rescinds payments for Day Ahead, HASP, and Real Time Regulation Up Awards in the event the Resource does not fulfill the requirements associated with that payment.	Generation Entitlement Share
6624	No Pay Regulation Down Settlement	Rescinds payments for Day Ahead, HASP, and Real Time Regulation Down Awards in the event the Resource does not fulfill the requirements associated with that payment.	Generation Entitlement Share
7056	Daily Flexible Ramp Cost Allocation	Accounts for the costs associated with the payments to Resources that resolve the flexible ramping constraint.	Generation Entitlement Share
7058	Monthly Flexible Ramp Cost Allocation	Reallocates the monthly total flexible ramp supply costs reversed in charge code 7057 to suppliers based upon monthly gross negative supply deviations.	Generation Entitlement Share
7256	Regulation Up-Mileage Allocation	Allocates the quantity of frequency Regulation Up service provided by a Resource when accurately following a control signal from the CAISO.	Generation Entitlement Share
7266	Regulation Down-Mileage Allocation	Allocates the quantity of frequency Regulation Down service provided by a Resource when accurately following a control signal from the CAISO.	Generation Entitlement Share
7999	Invoice Deviation Interest Allocation	Accounts for interest charges to Scheduling Coordinators for time value of money between CAISO Invoices.	ESP Invoice Deviation Amount deltas
8824	Monthly Resource Adequacy Standard Capacity Product Non-Availability Charge	Accounts for the CAISO's non availability charges to any Resource Adequacy Resource which fails to meet the CAISO-defined Availability Standard.	Pro-rata assessment to LEC Participants who claim LEC for RA Capacity for applicable month

Charge Code	Charge Code Name	Short Description	Allocation Basis
6011	Day Ahead Energy, Congestion, and Losses Settlement	Settles Day Ahead Schedules by paying for Supply and charging for Demand based upon the LMP at Resource Locations for each hour.	Generation Entitlement Share
6100	Day Ahead Spinning Reserve Capacity Settlement	Pays Scheduling Coordinators for awarded Spinning Reserve in the Day Ahead Market.	Generation Entitlement Share
6170	Real Time Spinning Reserve Capacity Settlement	Pays Scheduling Coordinators for awarded Spinning Reserve in the Real Time Market.	Generation Entitlement Share
6301	Day Ahead Inter-SC Trades Settlement Physical and Converted Physical Trades	Accounts for Energy Trades between Scheduling Coordinators in the Day Ahead Market. The “From” SC is charged the product of the valid quantity and the LMP. The “To” SC is paid the product of the valid quantity and the LMP. This could be a cost or revenue.	Allocated to the Project Participant/s who initiated the Trade based on unique scheduling SC IST name
6351_6371	Real-Time <u>FMM</u> Inter-SC Trades Settlements	Accounts for Energy Trades between Scheduling Coordinators during the <u>HASPFifteen Minute Market (FMM)</u> . The “From” SC is charged the product of the valid quantity and the LMP. The “To” SC is paid the product of the valid quantity and the LMP. This could be a cost or revenue.	Allocated to the Project Participant/s who initiated the Trade based on unique scheduling SC IST name
6460	FMM IIE	<u>FMM Instructed Imbalance Energy is the incremental or decremental energy to the Day Ahead Schedule.</u> <u>This could be a cost or revenue.</u>	<u>Generation Entitlement Share</u>
6470	Real-Time Instructed Imbalance-Energy <u>RTD IIE</u>	Based upon the calculated energy expected to be produced or consumed as a result of responding to Real Time Dispatch Instructions. This could be a cost or revenue.	Generation Entitlement Share
6475	Real Time Uninstructed Imbalance Energy	Accounts for deviations from a Resource’s Instructed Imbalance Energy and Day Ahead Schedule. This could be a cost or revenue.	Generation Entitlement Share

Charge Code	Charge Code Name	Short Description	Allocation Basis
6488	Exceptional Dispatch Uplift Settlement	Accounts for the Excess Cost Payment (Uplift) above the RT LMP to a Resource's Bid Price for exceptional dispatches that are used to mitigate or resolve congestion as a result of transmission-related modeling limitations in the Full Network Model.	Generation Entitlement Share
6500	Day Ahead Regulation Up Capacity Settlement	Pays Scheduling Coordinators for awarded Regulation Up in the Day Ahead Market.	Generation Entitlement Share
6570	Real Time Regulation Up Capacity Settlement	Pays Scheduling Coordinators for awarded Regulation Up in the Real Time Market.	Generation Entitlement Share
6600	Day Ahead Regulation Down Capacity Settlement	Pays Scheduling Coordinators for awarded Regulation Down in the Day Ahead Market.	Generation Entitlement Share
6620	<u>Real Time</u> Bid Cost Recovery Settlement	Pays Scheduling Coordinators an uplift to ensure start up costs, bid costs, and minimum load costs are able to be recovered <u>related to Real Time Market</u> .	Generation Entitlement Share
<u>6630</u>	<u>Day Ahead Bid Cost Recovery</u>	<u>Pays Scheduling Coordinators an uplift to ensure start up costs, bid costs, and minimum load costs are able to be recovered related to Day Ahead Market.</u>	<u>Generation Entitlement Share</u>
6670	Real Time Regulation Down Capacity Settlement	Pays Scheduling Coordinators for awarded Regulation Down in the Real Time Market.	Generation Entitlement Share
7050	Flexible Ramp Up Capacity Payment	Provides a payment to Resources that resolve the flexible ramping constraint and have been awarded Flexible Ramping Capacity.	Generation Entitlement Share
7057	Monthly Flex Ramp Up Supply Cost Allocation Reversal	Sums the daily Flexible Ramp Supply Costs in charge code 7056 to a monthly total and reverses them. They are then reallocated in charge code 7058.	Generation Entitlement Share
7251	Regulation Up Mileage Settlement	Settles the quantity of frequency Regulation Up service provided by a Resource when accurately following a control signal from the CAISO.	Generation Entitlement Share
7261	Regulation Down Mileage Settlement	Settles the quantity of frequency Regulation Down service provided by a Resource when accurately following a control signal from the CAISO.	Generation Entitlement Share
7989	Invoice Deviation Interest Settlement	Accounts for interest payments to Scheduling Coordinators.	ESP Invoice Deviation Amount

Charge Code	Charge Code Name	Short Description	Allocation Basis
8820	Monthly Resource Adequacy Standard Capacity Product Non-Availability Allocation	Accounts for the CAISO's allocation of non availability charges collected from Resource Adequacy Resources which fail to meet the CAISO-defined Availability Standard.	<u>Pro-rata assessment to LEC Participants who claim LEC for RA Capacity for applicable month</u> Generation-Entitlement Share

Cap-and-Trade Program Bidding Regulations

LEC PPC

March 10, 2014

Introduction

- Non-Disclosure of Bidding Information Among Auction Participants
- Recent Enforcement Action by CARB
 - ARB Press Release highlighting 4 cases
 - Final settlement documents posted on ARB website

Southern California Edison

- Settlement of \$75,000
- Date Settled: Feb. 2014
- Applicable Auction: Nov. 2012

- “ARB contends that following the Nov’12 allowance auction SCE disclosed its auction participation to the press on several occasions...” (emphasis added)
 - Four incidents penalized at \$10,000
 - Once incident penalized at \$35,000

Luminus Energy Partners, QP, LP

- Settlement of \$40,000
- Date Settled: Oct. 2013
- Applicable Auction: Aug 2013
- “ARB contends that...Luminus discussed bidding information with a 3rd party consultant who had not been disclosed in advance to the ARB.”

CP Energy Marketing (US), Inc.

- Settlement of \$25,000
- Date Settled: Jun. 2013
- Applicable Auction: Nov. 2012
- “ARB contends that...CP Energy failed to comply with the Regulation by specifically disclosing to an unrelated party its specific intent to purchase a specified number of allowances at the auction.”

City of Riverside

- Settlement of \$25,000
- Date Settled: Dec. 2013
- Applicable Auction: 2013 (unspecified)
- “ARB alleges that during 2013...Riverside failed to comply with the Regulation by submitting bids that exceeded the bid guarantee...”

Links to Settlement Documents

REFERENCE

References

- ARB Press Release:
 - <http://www.arb.ca.gov/newsrel/newsrelease.php?id=575>
- Links to Settlements:
 - [Southern California Edison](#)
 - [Luminus Energy Partners, QP, LP](#)
 - [CP Energy Marketing \(US\), Inc.](#)
 - [City of Riverside](#)

LEC PPC Meeting March 10, 2014

**Changes to NCPA Data Portal
updated for CAISO Fifteen Minute Market
(FMM) Structure**

CAISO Implementation of FERC Order 764

Objective:

Informational Presentation regarding changes to Data Portal for CAISO's Fifteen Minute Market (FMM)

Discuss:

- Changes to Data Portal Reports;
- Changes to Web Services;
- Anticipated new FMM Reports

Data Portal Query Results

Single Access Reporting Capability: each report will be compatible for either market structure:

- Before 4/1/2014: report's query results will display 10-minute data granularity;
- 4/1/2014 and beyond: same report's query results will display 5-minute data granularity

Changes to Generic Data Portal Report Names

Pre FERC 764

[Site Map](#) [Help](#) [Contact](#) [Sessions](#)

Meters ▾

Prices ▾

Bill ▾

Generation Meters ▶

Ten-Minute Generation By Resource

Load/Demand Meters ▶

Hourly Generation By Resource

Post FERC 764

Meters ▾

Prices ▾

Bill ▾

Generation Meters ▶

Generation By Resource

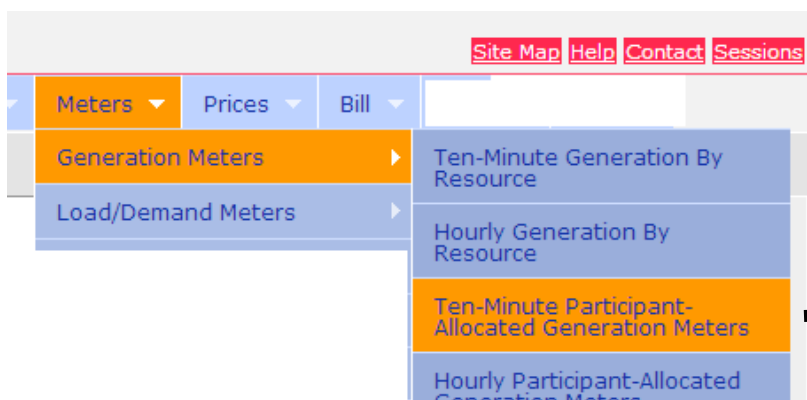
Load/Demand Meters ▶

Hourly Generation By Resource

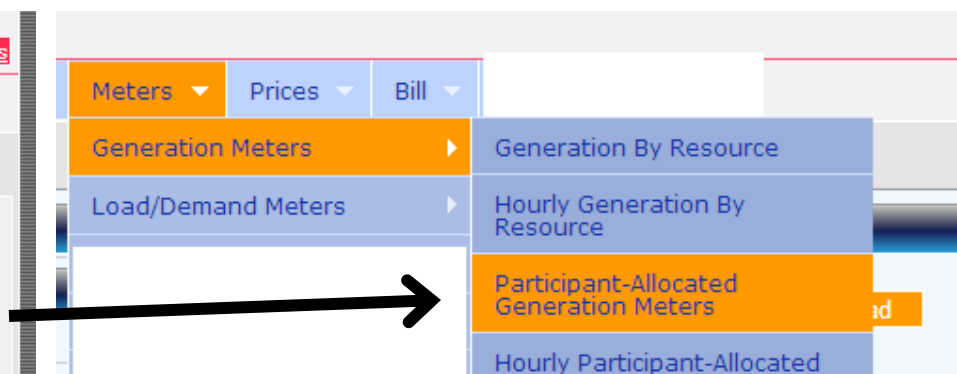


Changes to Generic Data Portal Report Names

Pre FERC 764



Post FERC 764



Data Portal – New LEC Reports

- Awarded 15-minute FMM Schedule MW
- FMM IIE (Instructed Imbalance Energy) MWhs
- FMM Locational Marginal Price

Updated NCPA Data Portal for FERC Order 764

Questions?

