



12745 N. Thornton Road  
Lodi, CA 95242

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

## LEC PPC Agenda

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**Date:** December 5, 2018

**Subject:** December 10, 2018 Lodi Energy Center Project Participant Committee Meeting

**Location:** 12745 N. Thornton Road, Lodi, CA and/or Posted Teleconference Locations

**Time:** 10:00 a.m.

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\*\*\* 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 meeting begins, and (2) have a speaker phone available for any member of the public who may wish to attend at your location.

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NCPA 651 Commerce Drive Roseville, CA 95678	NCPA 12745 N. Thornton Road Lodi, CA 95241	CITY OF HEALDSBURG 401 Grove Street Healdsburg, CA 95448
BAY AREA RAPID TRANSIT 300 Lakeside Drive, 16 <sup>th</sup> Floor Oakland, CA 94612	CITY OF GRIDLEY 685 Kentucky Street Gridley, CA 95948	CITY OF LOMPOC 100 Civic Center Plaza Lompoc, CA 93438
CITY OF BIGGS 465 "C" Street Biggs, CA 95917	PLUMAS-SIERRA RURAL ELECTRIC COOP 73233 Highway 70 Portola, CA 96122	POWER & WATER RESOURCES POOLING AUTHORITY 106 Polo Rd Glenwood Springs, CO 81601
CALIFORNIA DEPARTMENT OF WATER RESOURCES 2135 Butano Drive, Suite 100 Sacramento, CA 95825	SILICON VALLEY POWER/CITY OF SANTA CLARA 1500 Warburton Avenue, Santa Clara, CA 95050	CITY OF UKIAH 300 Seminary Avenue Ukiah, CA 95482
CITY OF AZUSA 729 N. Azusa Avenue Azusa, CA 91702		

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

*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](http://www.ncpa.com)*

**1. Call Meeting to Order and Roll Call**

**PUBLIC FORUM**

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

**2. Meeting Minutes – Approval of November 5, 2018 Regular Meeting Minutes**

**MONTHLY REPORTS**

**3. Operational Report for November 2018 – (Jeremy Lawson)**

**4. Market Data Report for November 2018 – Verbal Report (Mike Whitney)**

**5. Monthly Asset Report for October 2018 – (Michael DeBortoli)**

**6. Bidding Strategies Report – Verbal Report and update regarding bidding strategies and regulation down revenues (Jesse Shields)**

**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 October 2018 and November 2018 – Accept by all Participants**

**8. Financial Report for October 2018 and November 2018 – Approve by all Participants**

**9. GHG Reports (excerpted from Monthly ARB) – Accept by all Participants**

Consent Items pulled for discussion: \_\_\_\_\_

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

## **BUSINESS ACTION ITEMS**

- 10. LEC Spring Outage Project** – Staff will be seeking a recommendation for PPC approval of the April 2019 Outage Project.

## **CLOSED SESSION**

- 11. Conference with Legal Counsel** – Existing litigation pursuant to California Government Code Section 54956.9(d)(1): One case:

- a. Pacific Gas and Electric Company's (U 39 G) 2019 Gas Transmission and Storage Rate Case, *Application of Pacific Gas and Electric Company Proposing Cost of Service and Rates for Gas Transmission and Storage Services for the Period 2019 – 2021*, California Public Utilities Commission Application 17-11-009 (filed November 17, 2017).

## **INFORMATIONAL/ DISCUSSION ITEMS**

- 12. Siemens Upgrade Options** – Staff will share an informational-only presentation outlining options and upgrades available from Siemens for the Combustion Turbines.
- 13. Additional Operational Updates** – Staff will provide an update on issues related to Operations.

## **ADJOURNMENT**

Next Regular Meeting: Monday, January 7, 2019 at 10:00 a.m.

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



651 Commerce Drive  
Roseville, CA 95678

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

# LEC PPC Meeting Minutes

**Date:** November 5, 2018

**Time:** 10:00 a.m.

**Location:** Lodi Energy Center – 12745 N. Thornton Rd, Lodi, CA 95242 and by teleconference

**Subject:** Lodi Energy Center Project Participant Committee Meeting

## 1. Call Meeting to Order and Roll Call

The PPC meeting was called to order at 10:14 a.m. by Chairman Martin Caballero. He asked that roll be called for the Project Participants as listed below.

PPC Meeting Attendance Summary		
Participant	Attendance	Particulars / GES
Azusa - Robledo	Present	2.7857%
BART - Lloyd	Absent	6.6000%
Biggs - Sorenson	Present	0.2679%
CDWR - Burke	Present	33.5000%
Gridley - Borges	Absent	1.9643%
Healdsburg - Crowley	Absent	1.6428%
Lodi - Price	Present	9.5000%
Lompoc - Singh	Absent	2.0357%
MID - Caballero	Present	10.7143%
Plumas-Sierra - Brozo	Absent	0.7857%
PWRPA - Bradley	Present	2.6679%
SVP - Apolinario	Absent	25.7500%
Ukiah - Grandi	Absent	1.7857%
Summary		
Present	6	59.4358%
Absent	7	40.5642%
Quorum by #:	No	
Quorum by GES:	Yes	
Meeting Date:	November 5, 2018	

## **Public Forum**

Chairman Caballero asked if any members of the public were present in Lodi or at any of the other noticed meeting locations who would like to address the PPC on any agenda items or on any item within the jurisdiction of the LEC PPC and not listed on the agenda. No members of the public were present.

## **2. Meeting Minutes**

The draft minutes from the October 8, 2018 Regular Meeting were considered. The LEC PPC considered the following motion:

**Date:**

11/5/2018

**Motion:**

The PPC approves the minutes from the October 8, 2018 Regular Meeting as presented or *including any edits discussed at today's meeting.*

**Moved by:**

**CDWR**

**Seconded by:**

**Lodi**

Discussion: There was no further discussion.

<b>Vote Summary on Motion</b>		
<b>Participant</b>	<b>Vote</b>	<b>Particulars / GES</b>
Azusa	Yes	2.7857%
BART	Absent	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Absent	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Yes	2.6679%
Silicon Valley Power	Absent	25.7500%
Ukiah	Absent	1.7857%
<b>Vote Summary</b>		
Total Ayes	6	59.4358%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	7	40.5642%
Result:		Motion Passes

## **MONTHLY REPORTS**

### **3. Operational Reports for October 2018**

Jeremy Lawson presented the Operational Report for October. There were no OSHA recordable accidents, and no NERC/WECC or permit violations. There was one forced outage on October 1<sup>st</sup>, which was caused by a failed steam turbine input/output card; the outage lasted approximately 5.5 hours. There are no changes to the 2019 outage schedule.

The operational report reflected monthly production of 199,705 MWH, 728 service hours, and equivalent operating availability of 99.3%. The report set for the Capacity Factor @ 302MW Pmax of 88.9%. There were 2 hot starts, 1 warm start, and 0 cold starts during the month.

### **4. Market Data Report for October 2018**

Mike Whitney presented the operating and financial settlement results for the month. LEC was committed to CAISO 31 out of 31 available days, with an overall operating availability of 99.37%. Most startups were for mid to long-term runs, with twenty four 24-hour runs in the month of October.

### **5. Monthly Asset Report**

Mike DeBortoli presented the monthly asset report for September. Mike reported that revenues softened during the month, mostly due to mild temperatures. The unit ran for most of September, however, historic charts show that it was not the best September on record. Mike also shared that the forecast for the remainder of the year was volatile in a favorable direction. Mike reviewed the monthly historical comparisons as well as the 12-month history.

### **6. Bidding Strategies Report**

Jesse Shields presented the Bidding Strategies Report for October. Jesse reviewed bidding and calculating net start-up costs. Jesse reviewed DA and RT net revenues over the month with the Committee.

### **Consent Calendar (Items 7 – 18)**

The consent calendar was considered. Chairman Caballero asked if any Participant wished to have any item removed for separate discussion. Hearing no requests, he then asked if any Participant wished to abstain from one or more items on the Consent Calendar. There were no abstentions. The LEC PPC considered the following motion:

**Date:** 11/5/2018

**Motion:** The PPC approves the Consent Calendar items consisting of agenda items no. **7. Treasurer's Report for September 2018;** **8. Babcock and Wilcox Construction Co MTGSA** not to exceed \$1,000,000 for maintenance services, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members; **9. Thermal Engineering Company MTPSA** not to exceed \$1,000,000 for engineering related services for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members; **10. Voith Turbo, Inc. MTGSA** with a not to exceed amount of \$1,000,000 for turbo machinery support services, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members; **11. Well Analysis Corporation, Inc. dba WELACO, Inc. MTGSA** with a not to exceed amount of \$500,000 for well-related services, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members; **12. AECOM Technical Services, Inc. First Amendment to MTPSA** increasing the not to exceed amount from \$100,000 to \$500,000, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members; **13. Wagner Mechanical, Inc. MTGSA** with a not to exceed amount of \$500,000 for general T&M maintenance services, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, SCPPA Members; **14. Nor-Cal Controls ES, Inc. First Amendment to MTCSA** increasing the not to exceed amount from \$350,000 to \$800,000 for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members; **15. Schneider Electric USA, Inc. MTGSA** with a not to exceed amount of \$2,000,000 for electrical related services, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members; **16. Bay Valve Services and Engineering, LLC MTGSA** with a not to exceed amount of \$1,000,000 for valve testing and maintenance, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members; **17. Reliability Management Group First Amendment to MTCSA** increasing the not to exceed amount from \$100,000 to \$500,000, and opening this agreement for use at all NCPA facilities, Members, SCPPA, and SCPPA Members; **18. Capuano Engineering Company MTCSA** with a not to exceed amount of \$1,000,000 for consulting services, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members.

**Moved by:**  
**Seconded by:**

**Lodi**  
**CDWR**

**Discussion:** There was no further discussion.

<b>Vote Summary on Motion</b>		
<b>Participant</b>	<b>Vote</b>	<b>Particulars / GES</b>
Azusa	Yes	2.7857%
BART	Absent	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Absent	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Yes	2.6679%
Silicon Valley Power	Absent	25.7500%
Ukiah	Absent	1.7857%
<b>Vote Summary</b>		
Total Ayes	6	59.4358%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	7	40.5642%
Result:	Motion Passes	

## **BUSINESS ACTION ITEMS**

### **10. FY18 Annual Billing Settlements**

Monty reviewed the FY18 annual billing settlements with the Committee. There were no changes to the presentation from the October 2018 LEC PPC meeting. Monty shared the preliminary results for all project participants, including the refund or charge amounts for each participant. Monty stated that staff plan to present this for approval in the November Commission Meeting. The LEC PPC considered the following motion:

**Date:** 11/5/2018

**Motion:** The PPC approves and recommends for Commission approval the Annual Billing Settlement Summary for fiscal year ending June 30, 2018.

**Moved by:** Lodi

**Seconded by:** CDWR



Discussion: There was no further discussion

<b>Vote Summary on Motion</b>		
<b>Participant</b>	<b>Vote</b>	<b>Particulars / GES</b>
Azusa	Yes	2.7857%
BART	Absent	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Absent	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Yes	2.6679%
Silicon Valley Power	Absent	25.7500%
Ukiah	Absent	1.7857%
<b>Vote Summary</b>		
Total Ayes	6	59.4358%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	7	40.5642%
Result:		Motion Passes

#### **10. 2019 Major Insurance Renewal**

Monty Hanks presented a summary of NCPA's major insurance renewals. On-going exposures to natural disasters, particularly fires, as well as 4 recent claims in the past 3 years, have contributed to increases from insurance companies.

Monty shared the results of the LEC Property & Casualty Insurance Premiums for the expiring 2018 policies vs. the projected 2019 renewals, including the dollar and percentage changes. NCPA is still finalizing negotiations, but staff anticipates being done with negotiations this month.

The Committee had questions regarding the Terrorism insurance, and requested a breakout of the Property Damage & Terrorism policy amounts. There was concern that perhaps the Terrorism coverage could be ballooning over time. Rui Dui stated that a breakdown of those items was not typically provided by insurers, but he would ask AEON for a separate quote.

There was also a question as to what impacts current outstanding claims could have on 2020 insurance rates. Monty responded that LEC is typically lower risk, and it is more likely that HQ would see an increase in 2020 than for a significant increase to impact LEC.

The LEC PPC considered the following motion:

**Date:** 11/5/2018

**Motion:** The PPC recommends approval for the General Manager to negotiate and bind coverage at amounts not to exceed proposed premiums at \$589,752 for 2019 property, excess liability and Workers' Compensation insurances

**Moved by:** CDWR

**Seconded by:** Lodi

Discussion: There was no further discussion

Vote Summary on Motion		
Participant	Vote	Particulars / GES
Azusa	Absent	2.7857%
BART	Absent	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Absent	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Yes	2.6679%
Silicon Valley Power	Absent	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	5	56.6501%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	8	43.3499%
Result:		Motion Passes

## **CLOSED SESSION**

### **10. Adjourned to Closed Session**

The PPC adjourned to Closed Session at 10:40 a.m. A Closed Session discussion was had pursuant to California Government Code Section 54956.9(d)(1) regarding Pacific Gas and Electric Company's 2019 Gas Transmission and Storage Rate Case, *Application of Pacific Gas and Electric Company Proposing Cost of Service and Rates for Gas Transmission and Storage*

At 10:49 a.m. the Committee returned to Open Session. General Counsel Jane Luckhardt advised that no reportable action was taken during the Closed Session.

#### **10. Extension of Negotiated Contract Rate with PG&E**

Michael DeBortoli presented some background on the current negotiated rate contract between NCPA and Pacific Gas & Electric. The current negotiated gas rate for LEC went into effect on 9/1/2017, with an original expiration date of 12/31/2018. This negotiated rate allowed for a reduced rate for gas transportation, with no other terms being affected.

Mike shared some graphs which outlined the benefits to both NCPA and PG&E of the current negotiated rate. There was some discussion regarding some of the factors that have contributed to the larger rate increases by PG&E. Safety upgrade costs have been a major contributor.

This new contract will simply continue the current negotiated reduced rate with no changes. The new contract will go into effect on 1/1/2019, and will end when the new Gas Transportation and Storage rates go into effect.

The LEC PPC considered the following motion:

**Date:** 11/5/2018

**Motion:** The PPC approves to delegate authority to NCPA to negotiate an extension of the fixed, reduced gas rate contract with Pacific Gas and Electric.

**Moved by:** Lodi

**Seconded by:** CDWR

Discussion: There was no further discussion

<b>Vote Summary on Motion</b>		
<b>Participant</b>	<b>Vote</b>	<b>Particulars / GES</b>
Azusa	Absent	2.7857%
BART	Absent	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Absent	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Yes	2.6679%
Silicon Valley Power	Absent	25.7500%
Ukiah	Absent	1.7857%

<b>Vote Summary</b>		
Total Ayes	5	56.6501%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	8	43.3499%
Result:	Motion Passes	

## **INFORMATIONAL ITEMS**

### **17. Additional Operational Updates**

There were no additional operational updates at this time.

### **Adjournment**

The next regular meeting of the PPC is scheduled for Monday, December 10, 2018 at 10:00 a.m.

The meeting was adjourned at 11:13 a.m.

Submitted by: Michelle Schellentrager

# **Lodi Energy Center Project Participant Committee**

## **Operational Report**

**Agenda Item No.: 3**

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**Date:** 12/10/2018

**To:** Lodi Energy Center Project Participant Committee

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### **Safety**

- OSHA Recordable: 0 Accidents.

### **Notice of Violations**

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

### **Outage Summaries:**

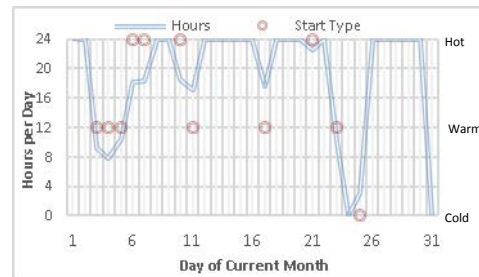
- 11/11/18 - 1:40 hours forced out, LEC tripped on start-up due to aux boiler 1351 - 1534 OMS 6647876
- 11/21/18 - 2 hours forced out, LEC tripped due to technician error working on UPS 0900 - 1100 OMS 6681210
- 11/24/18 - 19 hours forced out, LEC inlet filters overloaded 0000-1910 OMS 6678489

### **Planned Outage Summaries:**

- 2019 April – Generator Inspections, Main Transformer Inspections, and DCS Upgrade
- 2021/2022 CT – Major Inspection (6 weeks outage)

**Generating Unit Statistics:****Date:** 11/1/2018

1. Monthly Production	158,597	MWH
2. Productivity Factor		
a. Service Hours	585	Hours
b. Service Factor	81.1	%
c. Capacity Factor @ 302MW Pmax	72.8	%
3. Equivalent Operating Availability (EOA)	100.0	%
4. Forced Outage Rate (FOR)	0.0	%



5. Heat Rate Deviation		
a. Fuel Cost (Not Current Market Price)	4.00	\$/mmBTU

MW Range	PMOA HR BTU/kW-Hr	Average HR BTU/kW-Hr	Deviation %	Production MWH	Cost \$
Seg. 1 296 +	6850	0	0.00%	0	\$0
Seg. 2 284 - 296	6870	6,960	1.31%	142	\$51
Seg. 3 275 - 284	6971	6,976	0.07%	2,347	\$43
Seg. 4 250 - 275	7081	7,003	-1.10%	16,315	-\$5,078
Seg. 5 225 - 250	7130	7,085	-0.64%	4,693	-\$854
Seg. 6 200 - 225	7200	7,181	-0.26%	2,953	-\$225
Seg. 7 175 - 225	7450	7,478	0.38%	3,800	\$429
Seg. 8 165 - 175	7760	7,885	1.61%	1,948	\$971
	7,164	7,224	0.01%	32,197	-\$4,662

## 6. AGC Control Deviation

MW Range	High Dev MWH	Low Dev MWH	Total Dev MWH	Cost \$
Seg. 1 296 +	0	0	0	\$0
Seg. 2 284 - 296	2	-69	71	\$1,968
Seg. 3 275 - 284	2	-517	519	\$14,489
Seg. 4 250 - 275	24	-21	45	\$1,265
Seg. 5 225 - 250	21	-11	32	\$896
Seg. 6 200 - 225	9	-14	23	\$668
Seg. 7 175 - 225	7	-14	21	\$624
Seg. 8 165 - 175	0	0	1	\$26
	66	-646	712	\$19,937

## 7. Starting Reliability

Start Type	Hot Starts	Warm Starts	Cold Starts
Number of Starts	4	6	1
Start Time Benchmark (Minutes)	75	110	200
Start Time Actual (Average Minute)	58	112	195
Start Time Deviation (%)	-22%	2%	-3%
Start Fuel Benchmark PMOA (mmBTU)	1,300	1,800	3,500
Start Fuel Actual (Average mmBTU)	1,011	1,561	3,923
Fuel Deviation (%)	-22%	-13%	12%
Costs of Fuel Deviations (\$)	-\$4,617	-\$5,735	\$1,691

**Definitions:**

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



# Market Settlement Results for November 2018

LEC PPC Meeting  
December 10, 2018

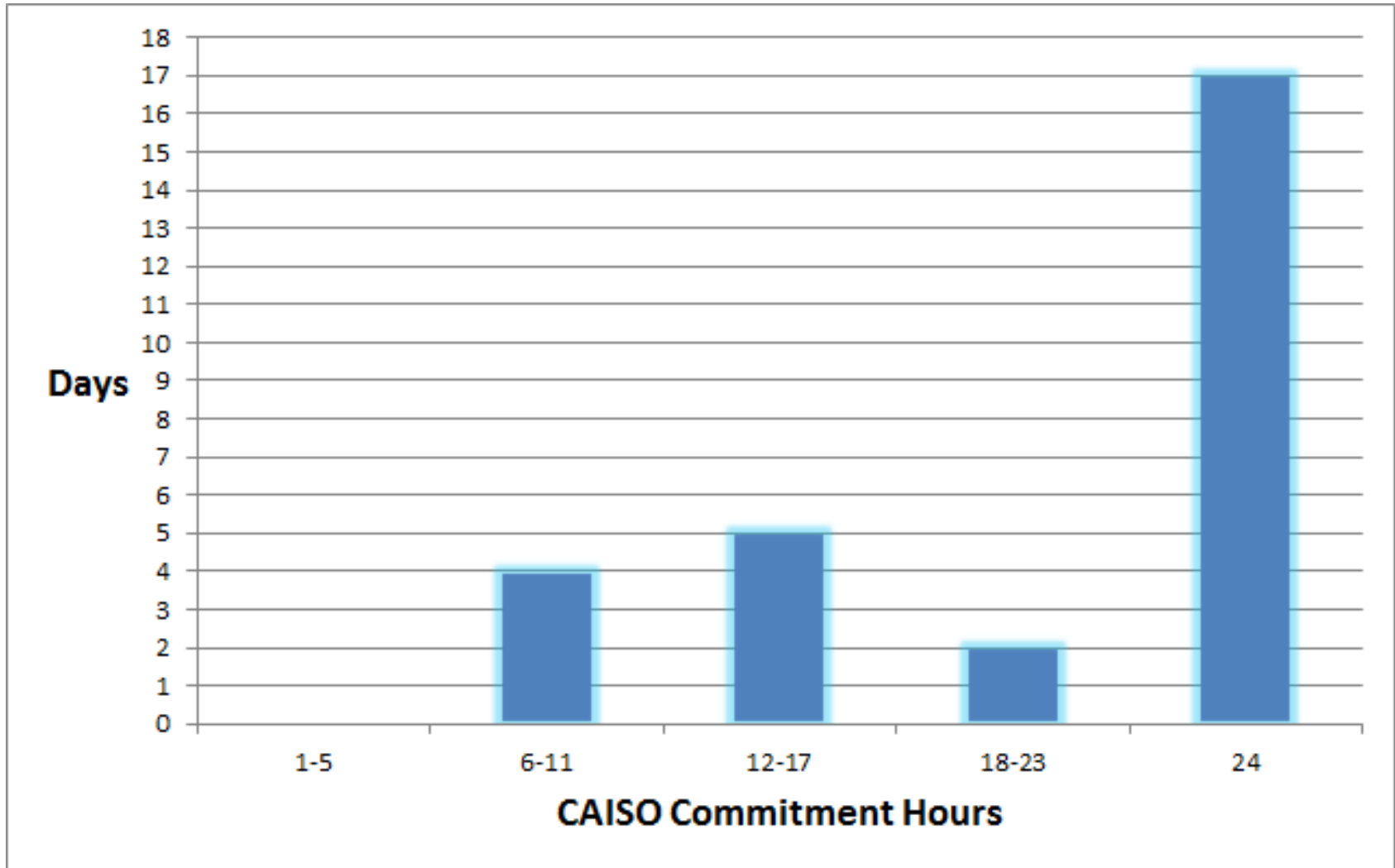




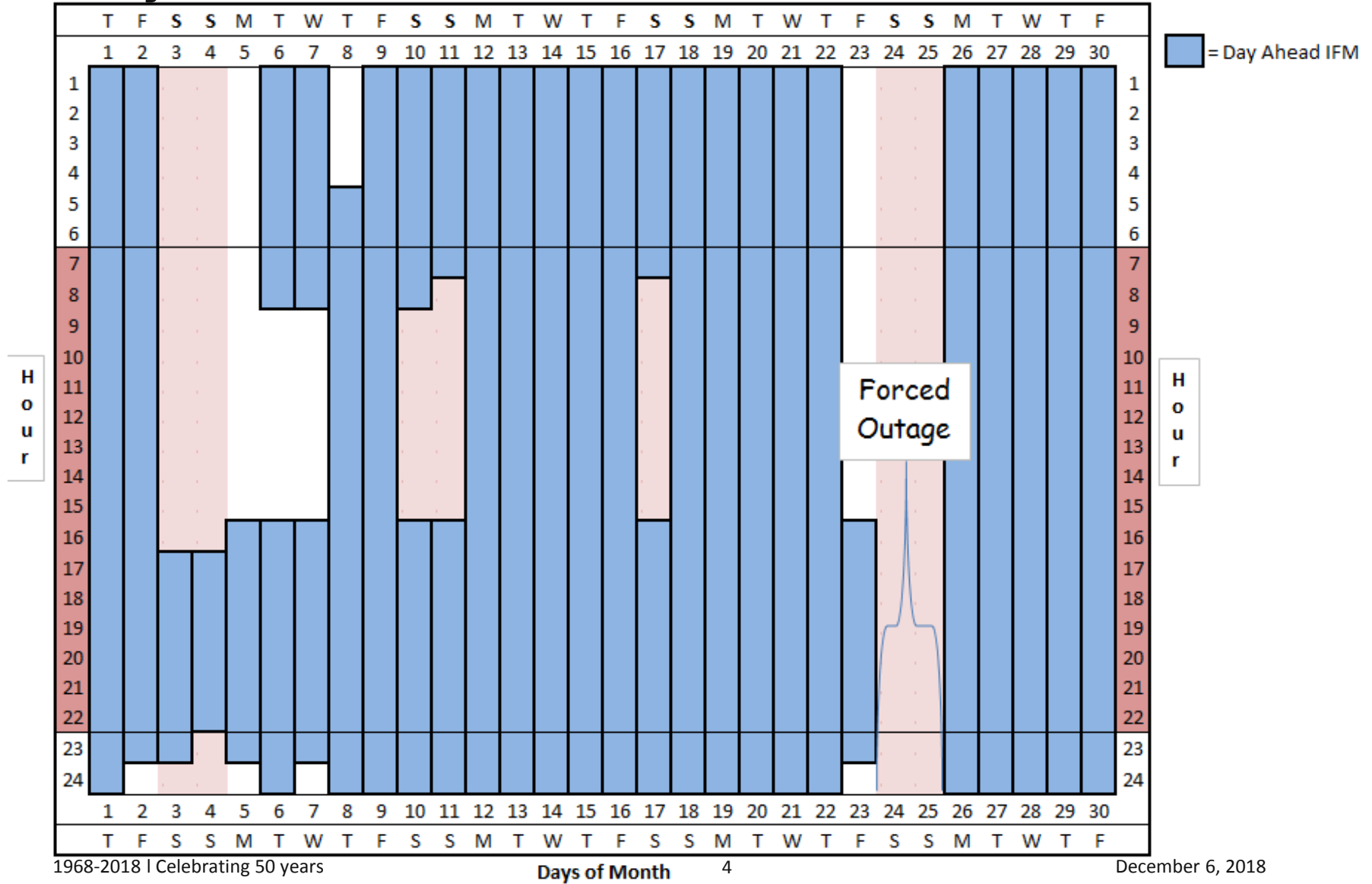
## LEC Operational Results for November 2018

- Resource Adequacy Availability Metrics:
  - 99.37% - Monthly Assessment Generic Performance
  - 100% - Monthly Assessment Flexible Performance
- Vs
- 96.5% Availability Standard
- Estimated RAAIM Incentive Payment of
  - \$10,400 for Generic RA based on claimed 88.99 mw RA
  - \$4,100 for Flexible RA based on claimed 40.05 mw RA
- LEC was committed by CAISO for Market energy 28 of 30 available days
  - 2 days not committed due to forced outage
  - 0 days not committed due to economics

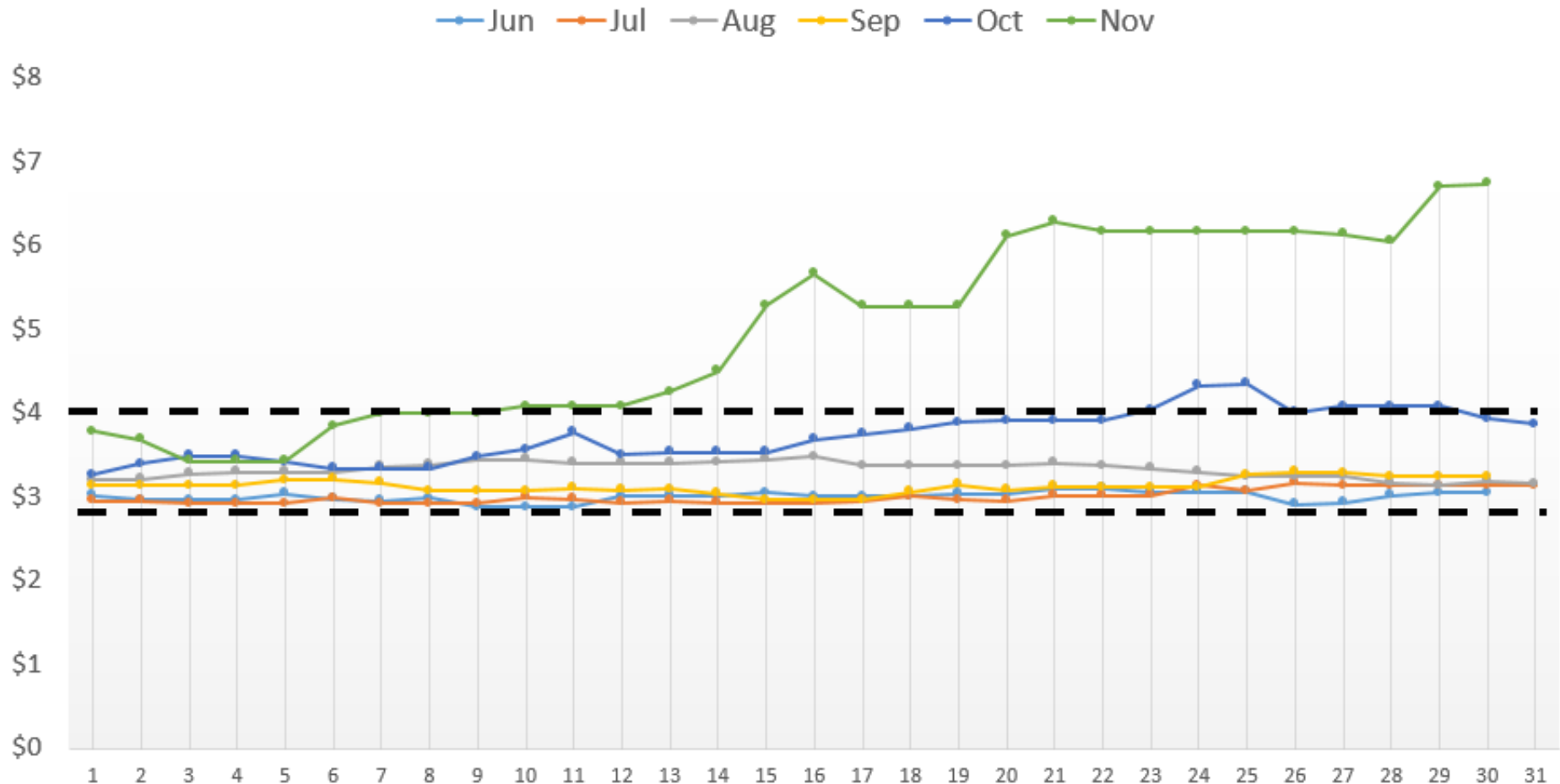
# Frequency Tabulation of Daily CAISO commitment hour runs for November 2018



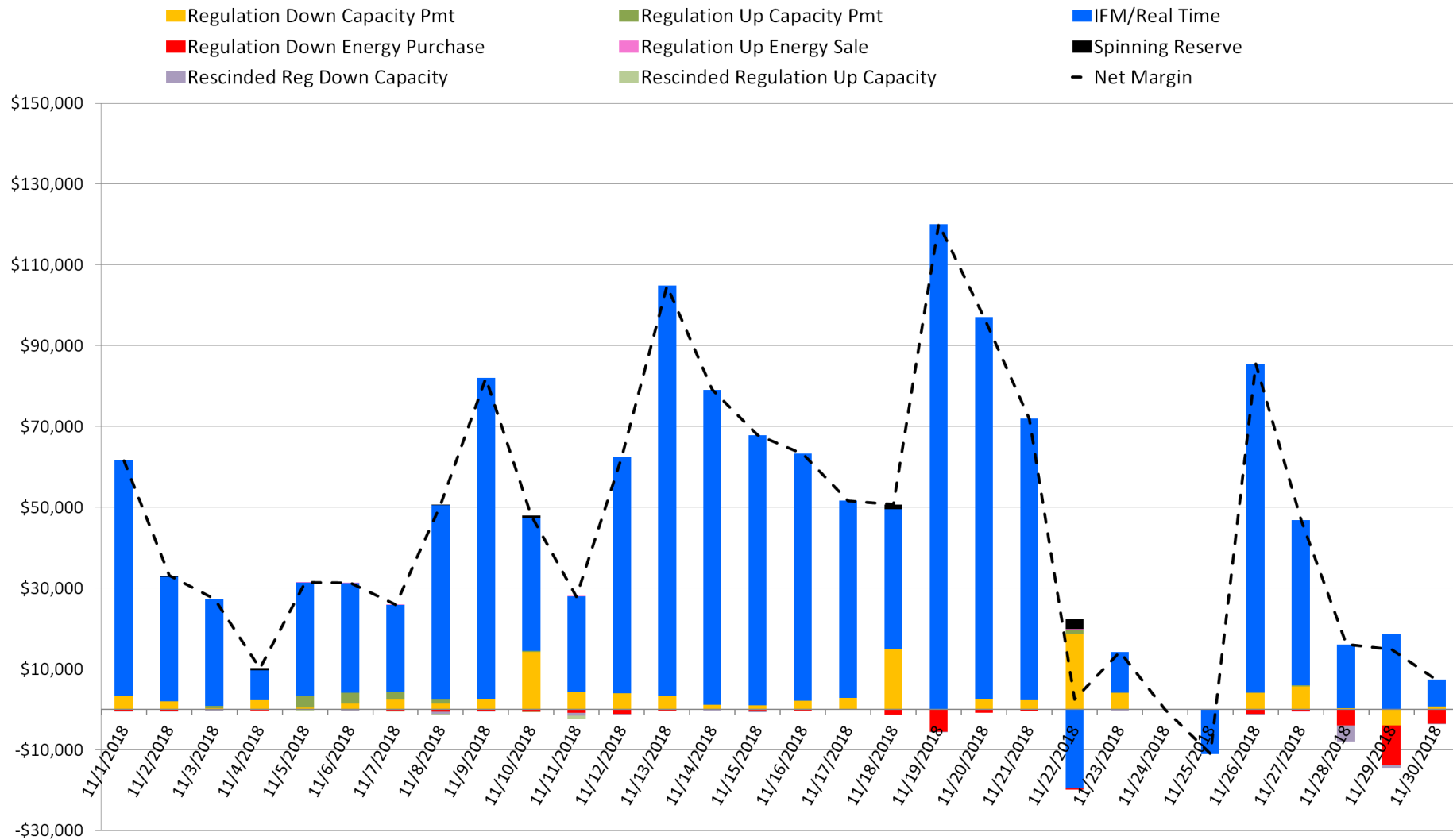
# Daily CAISO Commitment Runs for November 2018



# PG&E CityGate gas prices increase from previous range-bound daily trading levels



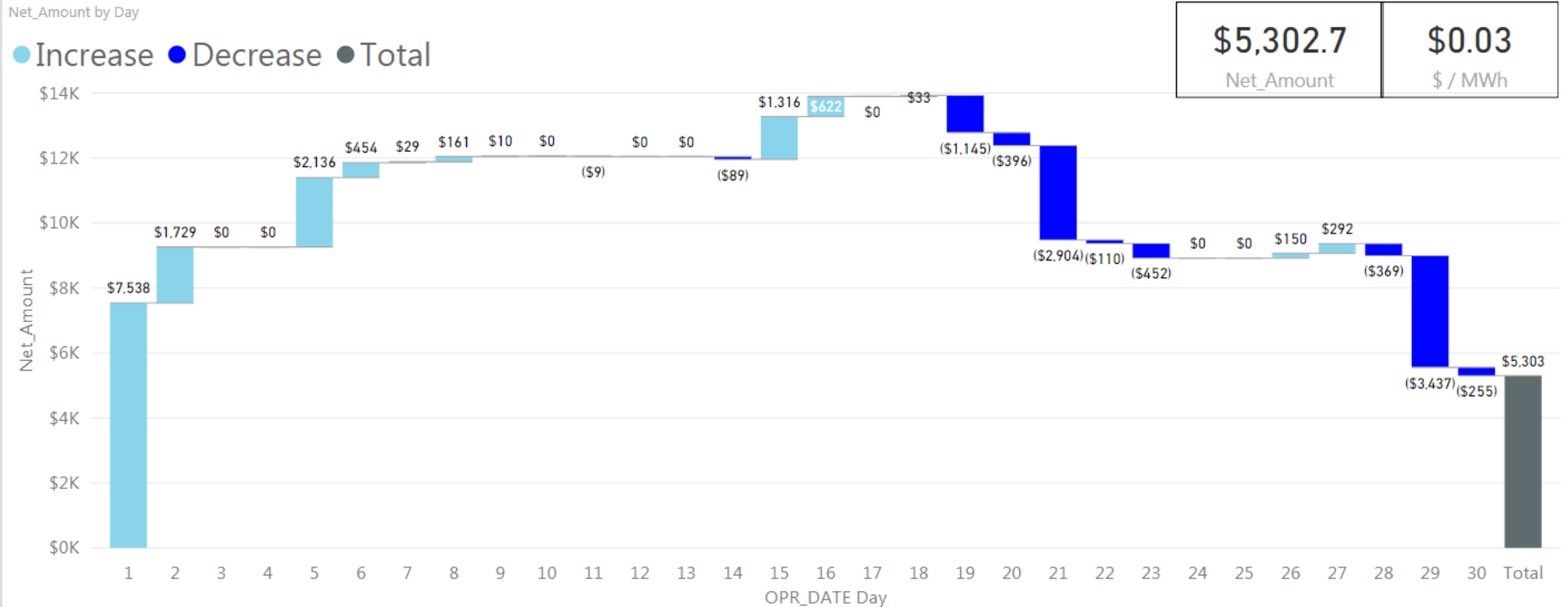
# November 2018 LEC Daily Margin Profile by Product



## November 2018 LEC Project Cumulative Monthly Margin

IFM/RTM Gross Revenues	\$ 9,139,200	
Regulation Up Capacity	\$ 12,100	
Regulation Down Capacity	\$ 140,000	
Spinning Reserve	\$ 5,100	
Total Gross LEC Revenue		\$ 9,296,400
LEC CAISO GMC Costs	\$ (66,900)	
CAISO Energy & Capacity Buyback Costs	\$ (246,300)	
Total Monthly LEC Fuel Cost	\$ (6,142,200)	
Total Monthly GHG Obligation	\$ (924,400)	
Variable Operations & Maintenance Cost	\$ (529,700)	
Total Costs		\$ (7,909,500)
Net Cumulative Monthly Margin		\$ 1,386,900
Average Margin \$/MWh	\$	8.7

# Comparison of Day Ahead Congestion LEC vs NP15 Trade Hub



**\$5,302.7**

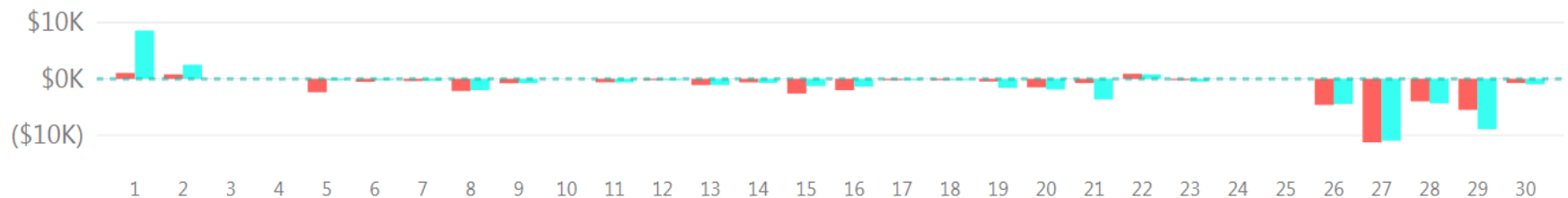
Net\_Amount

**\$0.03**

\$ / MWh

NP15\_Cost and LEC\_Cost by Day

● NP15\_Cost ● LEC\_Cost

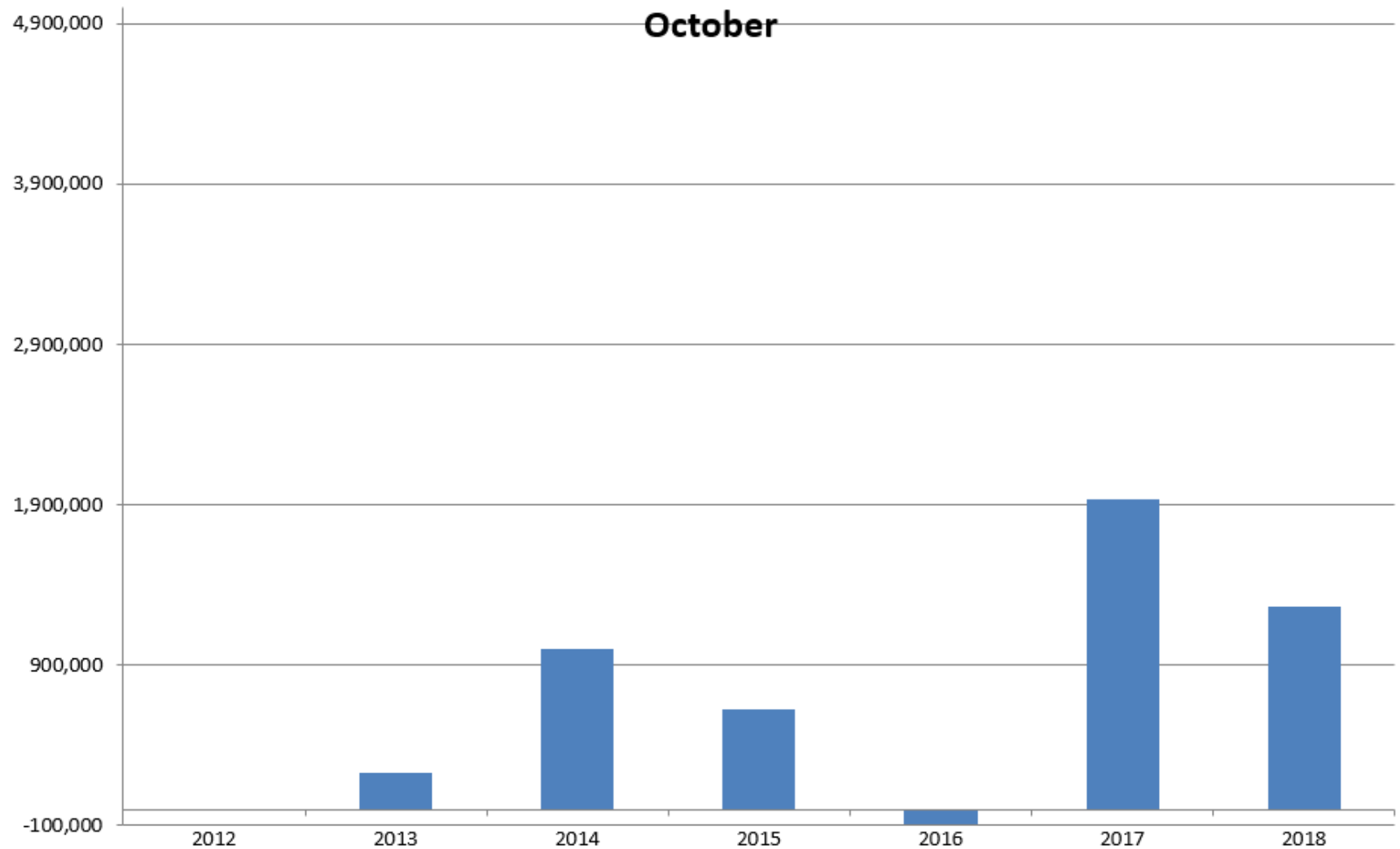


# October Asset Report

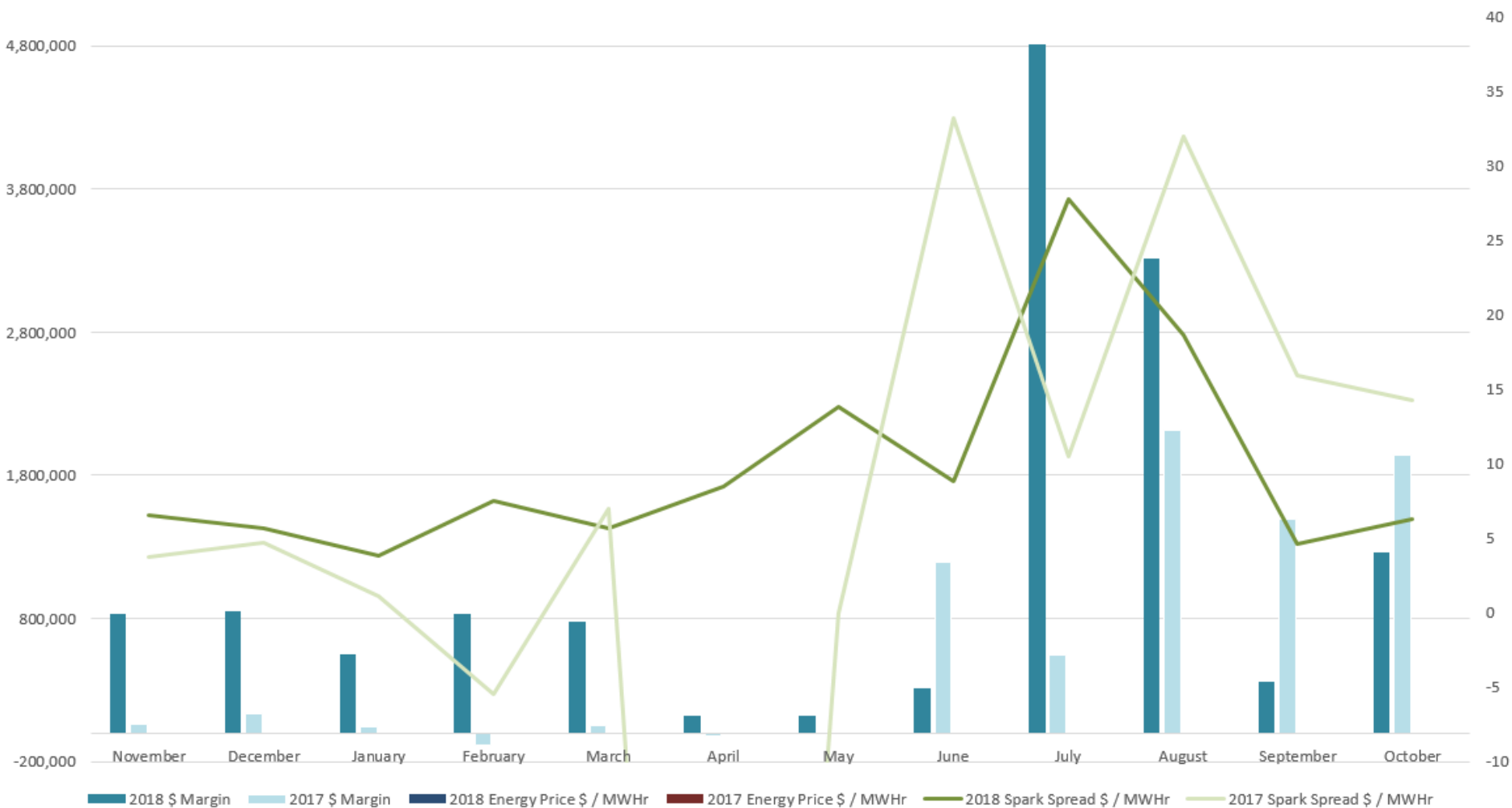
		Most Recent		Above / (below)	Percent Difference	
	Actual	Forecast	Budget	Forecast	Above / (below)	
Revenue	8,914,308	7,363,139	7,037,461	1,551,170	21%	
VOM	8,084,394	6,654,165	6,600,023	1,430,229	21%	
Fixed	752,948	1,111,335	1,111,335	(358,387)	-32%	
Projects	121,759	121,759	121,759	0	0%	
A&G	169,686	212,587	212,587	(42,901)	-20%	
Debt	2,173,321	2,173,321	2,173,321	0	0.00%	
Net Cost	(2,387,800)	(2,910,028)	(3,181,564)	522,228	-18%	
Net Annual Cost		(19,104,857)	(33,714,242)	\$14,609,385		
				Below budget by 43.33%		



# Historical Margins



### Historical Monthly Comparison



Lodi Energy Center  
Monthly Budget Analysis  
Expenditures  
Report Date: 11/26/2018

	July	August	September	October	November	December	January	February	March	April	May	June	Year	FY2017 Budget	Percent Used	Comments
VOM	5,762,637	5,660,582	2,618,769	8,084,394	5,487,124	7,721,742	8,757,034	6,381,157	2,956,883	743,403	1,078,035	5,149,040	60,400,801	45,870,926	131.7%	
Capacity Factor	83%	79%	36%	89%	70%	97%	97%	88%	38%	0%	13%	73%	64%	53%	119.8%	
Fuel Consumed (mmBTU, estimated)	1,236,043	1,270,941	562,033	1,395,938	1,042,132	1,489,505	1,498,095	1,273,011	584,243	0	194,156	1,086,424	11,632,521	8,933,236	130.2%	
Avg Fuel Cost (\$/mmBTU)	3.43	3.75	3.60	4.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	3.61	40.1%	
Power Produced (MWhr, estimated)	172,951	177,829	77,574	199,701	152,136	217,446	218,700	185,841	85,291	0	28,344	158,602	1,674,415	1,304,122	128.4%	
Avg Power Price (\$/MWhr)	61.06	54.29	40.01	44.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.25	39.19	49.1%	
Operations / Variable / LTSA	451,014	-221,653	98,129	1,036,939	213,569	297,516	1,342,394	261,312	142,157	743,403	63,795	578,798	5,007,372	4,733,381	105.8%	
Fuel (estimated)	4,238,046	4,768,310	2,024,022	5,809,467	4,368,613	6,130,803	6,082,266	4,987,657	2,295,112	0	841,562	3,601,223	45,147,081	33,092,116	136.4%	
AB32 GHG Offset (estimated)	1,003,831	1,038,008	463,974	1,152,683	840,704	1,201,607	1,240,029	1,053,718	483,600	0	160,710	899,273	9,538,138	7,494,769	127.3%	
CA ISO Charges (estimated)	69,746	75,916	32,643	85,305	64,239	91,816	92,345	78,471	36,014	0	11,968	69,746	708,209	550,660	128.6%	
Routine O&M (Fixed)	869,905	798,878	1,084,701	752,948	1,330,321	798,347	798,347	798,347	966,848	1,308,260	999,463	798,347	11,304,711	11,428,728	98.9%	
Maintenance / Fixed	287,217	220,480	343,484	265,716	375,000	217,958	217,958	217,958	375,000	550,000	400,000	217,958	3,688,728	3,443,662	107.1%	Misc Items, ie HVAC, Fire, Aux Pwr
Administration	4,265	1,807	34,753	4,025	16,412	16,412	16,412	16,412	25,000	16,412	16,412	16,412	184,732	205,529	89.9%	
Mandatory Costs	36,157	65,583	36,735	13,580	35,000	10,926	10,926	10,926	10,926	10,926	30,000	10,926	282,612	298,336	94.7%	
Inventory Stock	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0.0%	
Labor	421,755	367,483	538,453	346,372	460,000	422,129	422,129	422,129	425,000	600,000	422,129	422,129	5,269,710	5,284,165	99.7%	CT1 Work
Insurance	0	0	0	-1,713	312,988	0	0	0	0	0	0	0	311,275	625,976	49.7%	
Power Management & Settlements	120,511	120,511	120,511	120,511	120,511	120,511	120,511	120,511	120,511	120,511	120,511	120,511	1,446,133	1,446,134	100.0%	
Other Costs	0	23,014	10,765	4,457	10,411	10,411	10,411	10,411	10,411	10,411	10,411	10,411	121,520	124,926	97.3%	
Projects	121,759	126,805	121,759	121,759	121,759	121,759	121,759	121,759	121,759	221,759	121,759	121,759	1,566,153	1,613,107	97.1%	
Maintenance Reserve	121,759	121,759	121,759	121,759	121,759	121,759	121,759	121,759	121,759	121,759	121,759	121,759	1,461,107	1,461,107	100.0%	
Operations & Maintenance Projects	0	5,046	0	0	0	0	0	0	0	0	0	0	5,046	52,000	9.7%	
Capital Projects	0	0	0	0	0	0	0	0	0	100,000	0	0	100,000	100,000	100.0%	
A&G	179,446	187,660	235,600	169,686	212,587	212,587	212,587	212,587	212,587	212,587	212,587	212,587	2,473,087	2,551,043	96.9%	
Administrative & General (Allocated)	158,787	165,944	200,474	149,491	181,840	181,840	181,840	181,840	181,840	181,840	181,840	181,840	2,129,416	2,182,080	97.6%	
Generation Services Shared	20,659	21,716	35,126	20,195	30,747	30,747	30,747	30,747	30,747	30,747	30,747	30,747	343,671	368,963	93.1%	
Total O&M Cost	6,933,747	6,773,925	4,060,829	9,128,787	7,151,792	8,854,434	9,889,726	7,513,850	4,258,076	2,486,008	2,411,844	6,281,733	75,744,752	61,463,804	123.2%	
Debt Service	2,173,321	2,173,321	2,173,321	2,173,321	2,173,321	2,173,321	2,173,321	2,173,321	2,173,321	2,173,321	2,173,321	2,173,321	26,079,852	26,079,852	100.0%	
Revenues	10,560,770	9,655,190	3,103,737	8,914,308	6,956,509	11,466,727	11,699,487	8,763,123	3,509,675	4,331	1,509,301	6,576,590	82,719,747	53,829,414	153.7%	
ISO Energy Sales (estimated)	10,560,770	9,655,190	3,103,737	8,914,249	6,815,293	11,275,200	11,499,457	8,644,758	3,493,763	0	1,483,680	6,538,270	81,984,367	52,414,938	156.4%	Revised Forecast
Other Income	0	0	0	59	141,215	191,528	200,030	118,366	15,911	4,331	25,621	38,320	735,380	1,414,476		
Net	\$1,453,702	\$707,944	(\$3,130,414)	(\$2,387,800)	(\$2,368,604)	\$438,972	(\$363,560)	(\$924,048)	(\$2,921,723)	(\$4,654,998)	(\$3,075,864)	(\$1,878,464)	(\$19,104,857)	(\$33,714,242)	Below budget by 43.33%	



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.: 7

**Date:** December 10, 2018  
**To:** LEC Project Participant Committee  
**Subject:** Treasurer's Report for the Month Ended October 31, 2018

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 \$43,782.

Investments - The carrying value of the LEC's investment portfolio totaled \$35,167,121 at month end. The current market value of the portfolio totaled \$34,629,538.

The overall portfolio had a combined weighted average interest rate of 2.042% with a bond equivalent yield (yield to maturity) of 1.758%. Investments with a maturity greater than one year totaled \$17,370,000. During the month \$4,845,374 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 by 14 basis point (from 2.20% to 2.34%) and rates on one year T-Bills increased by 7 basis points (from 2.59% to 2.66%).

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

## 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,

MONTY HANKS  
Assistant General Manager/CFO  
Administrative Services/Finance

Prepared by:

SONDRA AINSWORTH  
Treasurer-Controller

Attachments

# **LODI ENERGY CENTER**

## **TREASURER'S REPORT**

**OCTOBER 31, 2018**

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**Northern California Power Agency/Lodi Energy Center  
Treasurer's Report  
Cash & Investment Balance  
October 31, 2018**

	CASH	INVESTMENTS	TOTAL	PERCENT	INVESTMENTS at MARKET
<b>MANDATORY FUNDS</b>					
Debt Service Account	1,464	11,569,679	11,571,143	32.86%	11,568,592
Debt Service Reserve	-	12,200,256	12,200,256	34.65%	11,822,583
O & M Reserve	-	11,323,922	11,323,922	32.16%	11,165,099
	1,464	35,093,857	35,095,321	99.67%	34,556,274
<b>ADDITIONAL PROJECT FUNDS</b>					
GHG Cash Account	-	73,264	73,264	0.21%	73,264
Transmission Upgrade Escrow <sup>1</sup>	42,318	-	42,318	0.12%	-
Participant Deposit Account	-	-	-	0.00%	-
	<b>\$ 43,782</b>	<b>\$ 35,167,121</b>	<b>\$ 35,210,903</b>	<b>100.00%</b>	<b>\$ 34,629,538</b>

**NOTE A -Investment amounts shown at book carrying value.**

<sup>1</sup> Amount held in escrow

**Northern California Power Agency/Lodi Energy Center**  
**Treasurer's Report**  
**Cash Activity Summary**  
**October 31, 2018**

	RECEIPTS			EXPENDITURES			CASH
	OPS/CONSTR	INTEREST (NOTE B)	INVESTMENTS (NOTE A)	OPS/CONSTR	INVESTMENTS (NOTE B)	INTER-COMPANY/ FUND TRANSFERS	INCREASE / (DECREASE)
<b>MANDATORY FUNDS</b>							
Debt Service Account	\$ -	\$ 331	\$ 2,223,855	\$ -	\$ (4,695,258)	\$ 2,348,137	(122,935)
Debt Service Reserve	-	105	140,235	-	(140,340)	-	-
O & M Reserve	-	9,380	-	-	(9,380)	-	-
	-	9,816	2,364,090	-	(4,844,978)	2,348,137	(122,935)
<b>ADDITIONAL PROJECT FUNDS</b>							
GHG Cash Account	-	396	-	-	(396)	-	-
Transmission Upgrade Escrow <sup>1</sup>	-	11	-	-	-	-	11
Participant Deposit Account	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>\$ -</b>	<b>\$ 10,223</b>	<b>\$ 2,364,090</b>	<b>\$ -</b>	<b>\$ (4,845,374)</b>	<b>\$ 2,348,137</b>	<b>\$ (122,924)</b>

NOTE A -Investment amounts shown at book carrying value.

NOTE B -Net of accrued interest purchased on investments.

<sup>1</sup> Amount held in escrow

**Northern California Power Agency/Lodi Energy Center  
Treasurer's Report  
Investment Activity Summary  
October 31, 2018**

	PURCHASED	SOLD OR MATURED	(NON-CASH) DISC/(PREM) AMORT	(NON-CASH) GAIN/(LOSS) ON SALE	INVESTMENTS	
					TRANSFERS	INCREASE / (DECREASE)
<b>MANDATORY FUNDS</b>						
Debt Service Account	4,695,258	(2,223,855)	14,640	-	-	2,486,043
Debt Service Reserve	140,340	(140,235)	(6,562)	-	-	(6,457)
O & M Reserve	9,380	-	(1,532)	-	-	7,848
	<u>\$ 4,844,978</u>	<u>\$ (2,364,090)</u>	<u>\$ 6,546</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,487,434</u>
<b>ADDITIONAL PROJECT FUNDS</b>						
GHG Cash Account	396	-	-	-	-	396
Participant Deposit Acct.	-	-	-	-	-	-
<b>TOTAL</b>	<u><u>\$ 4,845,374</u></u>	<u><u>\$ (2,364,090)</u></u>	<u><u>\$ 6,546</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ 2,487,830</u></u>

**Less Non- Cash Activity**

Disc/(Prem) Amortization & Gain/(Loss) on Sale	(6,546)
Net Change in Investment --Before Non-Cash Activity	<u><u>\$ 2,481,284</u></u>

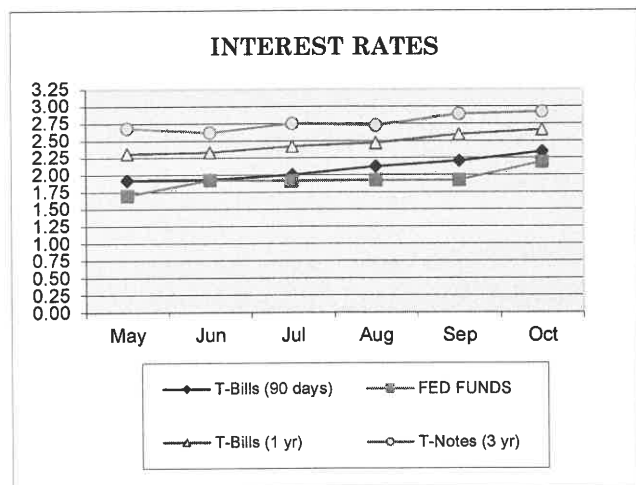
**NOTE A -Investment amounts shown at book carrying value.**



**Northern California Power Agency  
Lodi Energy Center  
Interest Rate/Yield Analysis  
October 31, 2018**

	<b>WEIGHTED AVERAGE INTEREST RATE</b>	<b>BOND EQUIVALENT YIELD</b>
<b>OVERALL COMBINED</b>	<b><u>2.042%</u></b>	<b><u>1.758%</u></b>
Debt Service Account	2.086%	2.125%
Debt Service Reserve	2.361%	1.661%
O & M Reserve	1.651%	1.484%
GHG Cash Account	2.157%	2.157%

<b>KEY INTEREST RATES</b>		
	<b>CURRENT</b>	<b>PRIOR YEAR</b>
Fed Funds (Overnight)	2.19%	1.16%
T-Bills (90da.)	2.34%	1.11%
Agency Disc (90da.)	2.31%	1.12%
T-Bills (1yr.)	2.66%	1.43%
Agency Disc (1yr.)	2.53%	1.41%
T-Notes (3yr.)	2.92%	1.73%



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

Type	0-7 Days	8-90 Days	91-180 Days	181-270 Days	271-365 Days	1-5 Years	6-10 Years	Total	Percent
US Government Agencies	\$ -	\$ 9,225	\$2,933	\$ 1,025	\$ -	\$ 17,370	\$ -	\$ 30,553	87.17%
Corporate Bonds (MTN)	-	-	-	-	-	-	-	-	0.00%
US Bank Trust Money Market	5	-	-	-	-	-	-	5	0.01%
Commercial Paper	-	-	-	-	-	-	-	-	0.00%
Investment Trusts (LAIF)	1,797	-	-	-	-	-	-	1,797	5.13%
Investment Trusts (CAMP)	-	-	-	-	-	-	-	-	0.00%
U.S.Treasury Market Acct.	47	-	-	-	-	-	-	47	0.13%
U.S.Treasury Bill/Note	-	2,361	205	85	-	-	-	2,651	7.56%
Certificates of Deposit	-	-	-	-	-	-	-	-	0.00%
Total Dollars	\$ 1,849	\$11,586	\$3,138	\$1,110	-	\$17,370	-	\$ 35,053	100.00%
Total Percents	5.28%	33.05%	8.95%	3.17%	0.00%	49.55%	0.00%	100.00%	

Investments are shown at Face Value, in thousands.

# **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**

**10/31/2018**

**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	860	0.600	07/01/2013	860		1	0.600	860	SYS79003	79003	860
U.S. Treasury	USBT	722,000	2.055	08/31/2018	718,291	11/29/2018	28	2.094	720,787	912796QL6	26662	720,846
Federal Home Loan Ba	USBT	721,000	2.185	10/17/2018	719,075	11/30/2018	29	2.221	719,731	313385R40A	26687	719,731
Federal Home Loan Ba	USBT	719,000	2.130	10/29/2018	717,639	11/30/2018	29	2.163	717,735	313385R40A	26709	717,766
Federal Home Loan Ba	USBT	1,271,000	2.030	07/31/2018	1,262,041	12/03/2018	32	2.072	1,268,483	313385R73	26639	1,268,707
<b>Fund Total and Average</b>		<b>\$ 3,433,860</b>	<b>2.088</b>		<b>\$ 3,417,906</b>		<b>30</b>	<b>2.127</b>	<b>\$ 3,427,596</b>			<b>\$ 3,427,910</b>

**LEC Issue #1 2010B DS Fund**

US Bank Trust	USB	911	0.600	07/01/2013	911		1	0.600	911	SYS79004	79004	911
U.S. Treasury	USBT	729,000	2.055	08/31/2018	725,255	11/29/2018	28	2.094	727,775	912796QL6	26663	727,835
Federal Home Loan Ba	USBT	727,000	2.185	10/17/2018	725,059	11/30/2018	29	2.221	725,720	313385R40A	26688	725,720
Federal Home Loan Ba	USBT	725,000	2.130	10/29/2018	723,627	11/30/2018	29	2.163	723,724	313385R40A	26710	723,756
Federal Home Loan Ba	USBT	1,460,000	2.030	07/31/2018	1,449,709	12/03/2018	32	2.072	1,457,109	313385R73	26640	1,457,366
<b>Fund Total and Average</b>		<b>\$ 3,641,911</b>	<b>2.085</b>		<b>\$ 3,624,561</b>		<b>30</b>	<b>2.124</b>	<b>\$ 3,635,239</b>			<b>\$ 3,635,588</b>

**LEC Issue #2 2010A DS Fund**

US Bank Trust	USB	994	0.600	07/01/2013	994		1	0.600	994	SYS79011	79011	994
U.S. Treasury	USBT	436,000	2.055	08/31/2018	433,760	11/29/2018	28	2.094	435,268	912796QL6	26664	435,303
Federal Home Loan Ba	USBT	436,000	2.185	10/17/2018	434,836	11/30/2018	29	2.221	435,233	313385R40A	26689	435,233
Federal Home Loan Ba	USBT	434,000	2.130	10/29/2018	433,178	11/30/2018	29	2.163	433,236	313385R40A	26711	433,255
Federal Home Loan Ba	USBT	838,000	2.030	07/31/2018	832,093	12/03/2018	32	2.072	836,341	313385R73	26641	836,488
<b>Fund Total and Average</b>		<b>\$ 2,144,994</b>	<b>2.086</b>		<b>\$ 2,134,861</b>		<b>30</b>	<b>2.125</b>	<b>\$ 2,141,072</b>			<b>\$ 2,141,273</b>

**LEC Issue #2 2010B DS Fund**

US Bank Trust	USB	1,022	0.600	07/01/2013	1,022		1	0.600	1,022	SYS79012	79012	1,022
U.S. Treasury	USBT	350,000	2.055	08/31/2018	348,202	11/29/2018	28	2.094	349,412	912796QL6	26665	349,441
Federal Home Loan Ba	USBT	349,000	2.185	10/17/2018	348,068	11/30/2018	29	2.221	348,386	313385R40A	26690	348,386
Federal Home Loan Ba	USBT	348,000	2.130	10/29/2018	347,341	11/30/2018	29	2.163	347,388	313385R40A	26712	347,403
Federal Home Loan Ba	USBT	702,000	2.030	07/31/2018	697,052	12/03/2018	32	2.072	700,610	313385R73	26642	700,733
<b>Fund Total and Average</b>		<b>\$ 1,750,022</b>	<b>2.085</b>		<b>\$ 1,741,685</b>		<b>30</b>	<b>2.124</b>	<b>\$ 1,746,818</b>			<b>\$ 1,746,985</b>

**LEC Issue#1 2017A DS Fund**

U.S. Treasury	USBT	124,000	2.055	08/31/2018	123,363	11/29/2018	28	2.094	123,792	912796QL6	26666	123,802
Federal Home Loan Ba	USBT	124,000	2.185	10/17/2018	123,669	11/30/2018	29	2.221	123,782	313385R40A	26691	123,782



Northern California Power Agency  
Treasurer's Report

10/31/2018

LEC Issue#1 2017A DS Fund

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Federal Home Loan Ba	USBT	123,000	2.130	10/29/2018	122,767	11/30/2018	29	2.163	122,784	313385R40A	26713	122,789
Federal Home Loan Ba	USBT	248,000	2.030	07/31/2018	246,252	12/03/2018	32	2.072	247,509	313385R73	26643	247,553
Fund Total and Average		\$ 619,000	2.086		\$ 616,051		30	2.125	\$ 617,867			\$ 617,926
GRAND TOTALS:		\$ 11,589,787	2.086		\$ 11,535,064		30	2.125	\$ 11,568,592			\$ 11,569,682

\*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 10/31/2018



Northern California Power Agency  
Treasurer's Report

10/31/2018

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	666	0.600	07/01/2013	666		1	0.600	666	SYS79005	79005	666
U.S. Treasury	USB	82,000	2.214	10/17/2018	81,041	04/25/2019	175	2.271	81,042	912796QC6	26698	81,117
U.S. Treasury	USB	85,000	1.625	02/27/2018	84,641	06/30/2019	241	1.945	84,462	912828WS5	26538	84,823
Federal Farm Credit	USB	4,360,000	1.660	06/08/2016	4,360,000	05/25/2021	936	1.659	4,217,079	3133EGBZ7	26337	4,360,000
Federal Home Loan Mt	USB	150,000	1.125	07/28/2017	146,648	08/12/2021	1,015	1.699	142,604	3137EAC9	26454	147,692
Federal Home Loan Ba	USB	4,100,000	2.125	08/28/2017	4,168,306	06/10/2022	1,317	1.760	3,976,713	313379Q69	26463	4,151,527
Fund Total and Average		\$ 8,777,666	1.874		\$ 8,841,302		1103	1.716	\$ 8,502,566			\$ 8,825,825

LEC Iss#1 2010B BABS Subs Resv

US Bank Trust	USB	125	0.600	07/01/2013	125		1	0.600	125	SYS79006	79006	125
U.S. Treasury	USB	38,000	1.823	02/27/2018	37,349	01/31/2019	91	1.872	37,780	912796PP8	26534	37,825
U.S. Treasury	USB	37,000	2.214	10/17/2018	36,567	04/25/2019	175	2.271	36,568	912796QC6	26699	36,602
Federal Home Loan Ba	USB	2,145,000	3.375	07/28/2017	2,255,146	08/12/2020	589	1.540	2,161,817	313370E38	26455	2,206,890
Fund Total and Average		\$ 2,220,125	3.331		\$ 2,329,187		574	1.557	\$ 2,236,290			\$ 2,281,442

LEC Issue #2 2010B DSR BABS

US Bank Trust	USB	367	0.600	07/01/2013	367		1	0.600	367	SYS79013	79013	367
U.S. Treasury	USB	25,000	1.823	02/27/2018	24,572	01/31/2019	91	1.872	24,856	912796PP8	26535	24,885
U.S. Treasury	USB	23,000	2.214	10/17/2018	22,731	04/25/2019	175	2.271	22,731	912796QC6	26700	22,752
Federal Home Loan Ba	USB	1,025,000	4.375	07/28/2017	1,082,708	07/01/2019	242	1.400	1,035,773	3133XU3G6	26456	1,044,985
Fund Total and Average		\$ 1,073,367	4.271		\$ 1,130,378		237	1.429	\$ 1,083,727			\$ 1,092,989
GRAND TOTALS:		\$ 12,071,158	2.361		\$ 12,300,867		926	1.661	\$ 11,822,583.			\$ 12,200,266

\*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 10/31/2018

Investment #26337 FFCB Callable anytime

**Northern California Power Agency  
Treasurer's Report**

10/31/2018

**LEC O & M Reserve**

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		1,723,705	2.157	07/01/2013	1,723,705		1	2.157	1,723,705	SYS70047	70047	1,723,705
Union Bank of Califo	UBOC	47,164	0.002	07/18/2013	47,164		1	0.002	47,164	SYS70041	70041	47,164
Federal National Mtg	UBOC	2,933,000	1.875	08/28/2015	2,998,142	02/19/2019	110	1.220	2,927,955	3135G0ZA4	26248	2,938,624
Federal Home Loan Ba	USB	3,615,000	1.540	06/30/2017	3,613,952	06/05/2020	582	1.550	3,540,495	3130ABJQ0	26440	3,614,430
Federal National Mtg	UBOC	3,000,000	1.300	06/30/2016	3,000,000	06/30/2020	607	1.300	2,925,780	3136G3UJ2	26341	3,000,000
<b>Fund Total and Average</b>		<b>\$ 11,318,869</b>	<b>1.651</b>		<b>\$ 11,382,963</b>		<b>375</b>	<b>1.484</b>	<b>\$ 11,165,099</b>			<b>\$ 11,323,923</b>
<b>GRAND TOTALS:</b>		<b>\$ 11,318,869</b>	<b>1.651</b>		<b>\$ 11,382,963</b>		<b>375</b>	<b>1.484</b>	<b>\$ 11,165,099.</b>			<b>\$ 11,323,923</b>

\*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 10/31/2018



Northern California Power Agency  
Treasurer's Report

10/31/2018

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		73,264	2.157	07/01/2013	73,264		1	2.157	73,264	SYS70046	70046	73,264
Fund Total and Average		\$ 73,264	2.157		\$ 73,264		1	2.157	\$ 73,264			\$ 73,264
GRAND TOTALS:		\$ 73,264	2.157		\$ 73,264		1	2.157	\$ 73,264			\$ 73,264

\*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 10/31/2018





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.: 7

**Date:** December 10, 2018  
**To:** LEC Project Participant Committee  
**Subject:** Treasurer's Report for the Month Ended November 30, 2018

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 \$538,304.

Investments - The carrying value of the LEC's investment portfolio totaled \$40,208,101 at month end. The current market value of the portfolio totaled \$39,714,036.

The overall portfolio had a combined weighted average interest rate of 1.593% with a bond equivalent yield (yield to maturity) of 1.339%. Investments with a maturity greater than one year totaled \$17,370,000. During the month \$12,096,349 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 by 5 basis points (from 2.34% to 2.39%) and rates on one year T-Bills increased by 4 basis points (from 2.66% to 2.70%).

To the best of my knowledge and belief, all securities held by LEC as of November 30, 2018 are in compliance with the Agency's investment policy. There are adequate cash flow and investment maturities to meet next month's cash requirements.

## 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,

MONTY HANKS  
Assistant General Manager/CFO  
Administrative Services/Finance

Prepared by:

SONDRA AINSWORTH  
Treasurer-Controller

Attachments

# **LODI ENERGY CENTER**

## **TREASURER'S REPORT**

**NOVEMBER 30, 2018**

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Greater than  
1 yr.  
\$17,370,000

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**Northern California Power Agency/Lodi Energy Center  
Treasurer's Report  
Cash & Investment Balance  
November 30, 2018**

	CASH	INVESTMENTS	TOTAL	PERCENT	INVESTMENTS at MARKET
<b>MANDATORY FUNDS</b>					
Debt Service Account	495,965	16,582,306	17,078,271	41.91%	16,582,815
Debt Service Reserve	-	12,230,068	12,230,068	30.02%	11,882,478
O & M Reserve	-	11,322,463	11,322,463	27.79%	11,175,479
	495,965	40,134,837	40,630,802	99.72%	39,640,772
<b>ADDITIONAL PROJECT FUNDS</b>					
GHG Cash Account	-	73,264	73,264	0.18%	73,264
Transmission Upgrade Escrow <sup>1</sup>	42,339	-	42,339	0.10%	-
Participant Deposit Account	-	-	-	0.00%	-
	<b>\$ 538,304</b>	<b>\$ 40,208,101</b>	<b>\$ 40,746,405</b>	<b>100.00%</b>	<b>\$ 39,714,036</b>

**NOTE A -Investment amounts shown at book carrying value.**

<sup>1</sup> Amount held in escrow

**Northern California Power Agency/Lodi Energy Center**  
**Treasurer's Report**  
**Cash Activity Summary**  
**November 30, 2018**

	RECEIPTS			EXPENDITURES			CASH
	OPS/CONSTR	INTEREST (NOTE B)	INVESTMENTS (NOTE A)	OPS/CONSTR	INVESTMENTS (NOTE B)	INTER-COMPANY/ FUND TRANSFERS	INCREASE / (DECREASE)
<b>MANDATORY FUNDS</b>							
Debt Service Account	\$ -	\$ 1,160	\$ 7,067,000	\$ -	\$ (12,060,029)	\$ 5,486,370	494,501
Debt Service Reserve	-	36,247	-	-	(36,247)	-	-
O & M Reserve	-	73	-	-	(73)	-	-
	-	37,480	7,067,000	-	(12,096,349)	5,486,370	494,501
<b>ADDITIONAL PROJECT FUNDS</b>							
GHG Cash Account	-	-	-	-	-	-	-
Transmission Upgrade Escrow <sup>1</sup>	-	21	-	-	-	-	21
Participant Deposit Account	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>\$ -</b>	<b>\$ 37,501</b>	<b>\$ 7,067,000</b>	<b>\$ -</b>	<b>\$ (12,096,349)</b>	<b>\$ 5,486,370</b>	<b>\$ 494,522</b>

**NOTE A** -Investment amounts shown at book carrying value.

**NOTE B** -Net of accrued interest purchased on investments.

<sup>1</sup> Amount held in escrow

**Northern California Power Agency/Lodi Energy Center  
Treasurer's Report  
Investment Activity Summary  
November 30, 2018**

	PURCHASED	SOLD OR MATURED	(NON-CASH) DISC/(PREM) AMORT	(NON-CASH) GAIN/(LOSS) ON SALE	INVESTMENTS	
					TRANSFERS	INCREASE / (DECREASE)
<b>MANDATORY FUNDS</b>						
Debt Service Account	12,060,029	(7,067,000)	19,597	-	-	5,012,626
Debt Service Reserve	36,247	-	(6,435)	-	-	29,812
O & M Reserve	73	-	(1,532)	-	-	(1,459)
	<u>\$ 12,096,349</u>	<u>\$ (7,067,000)</u>	<u>\$ 11,630</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,040,979</u>
<b>ADDITIONAL PROJECT FUNDS</b>						
GHG Cash Account	-	-	-	-	-	-
Participant Deposit Acct.	-	-	-	-	-	-
<b>TOTAL</b>	<u><u>\$ 12,096,349</u></u>	<u><u>\$ (7,067,000)</u></u>	<u><u>\$ 11,630</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ 5,040,979</u></u>

**Less Non- Cash Activity**

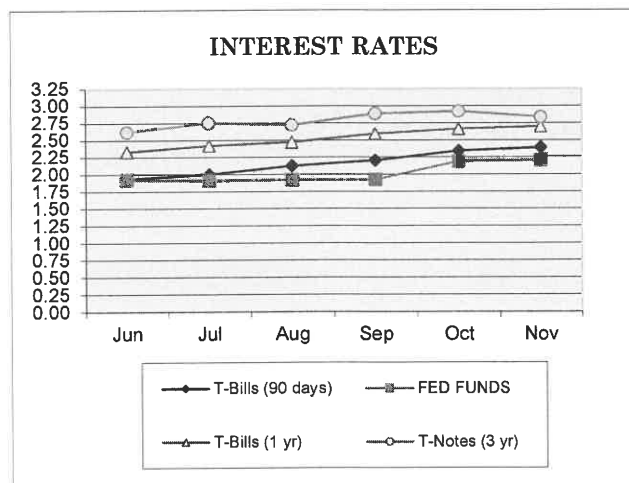
Disc/(Prem) Amortization & Gain/(Loss) on Sale	(11,630)
Net Change in Investment --Before Non-Cash Activity	<u><u>\$ 5,029,349</u></u>

**NOTE A -Investment amounts shown at book carrying value.**

**Northern California Power Agency  
Lodi Energy Center  
Interest Rate/Yield Analysis  
November 30, 2018**

	<b>WEIGHTED AVERAGE INTEREST RATE</b>	<b>BOND EQUIVALENT YIELD</b>
<b>OVERALL COMBINED</b>	<b><u>1.593%</u></b>	<b><u>1.339%</u></b>
Debt Service Account	<b>0.990%</b>	<b>1.001%</b>
Debt Service Reserve	<b>2.356%</b>	<b>1.658%</b>
O & M Reserve	<b>1.651%</b>	<b>1.484%</b>
GHG Cash Account	<b>2.157%</b>	<b>2.157%</b>

<b>KEY INTEREST RATES</b>		
	<b>CURRENT</b>	<b>PRIOR YEAR</b>
Fed Funds (Overnight)	<b>2.20%</b>	<b>1.16%</b>
T-Bills (90da.)	<b>2.39%</b>	<b>1.30%</b>
Agency Disc (90da.)	<b>2.35%</b>	<b>1.28%</b>
T-Bills (1yr.)	<b>2.70%</b>	<b>1.62%</b>
Agency Disc (1yr.)	<b>2.66%</b>	<b>1.49%</b>
T-Notes (3yr.)	<b>2.84%</b>	<b>1.86%</b>



**Northern California Power Agency  
Total Portfolio  
Investment Maturities Analysis  
November 30, 2018**

Type	0-7 Days	8-90 Days	91-180 Days	181-270 Days	271-365 Days	1-5 Years	6-10 Years	Total	Percent
US Government Agencies	\$ 4,519	\$ 2,933	\$ -	\$ 1,025	\$ -	\$ 17,370	\$ -	\$ 25,847	64.48%
Corporate Bonds (MTN)	-	-	-	-	-	-	-	-	0.00%
US Bank Trust Money Market	12,101	-	-	-	-	-	-	12,101	30.19%
Commercial Paper	-	-	-	-	-	-	-	-	0.00%
Investment Trusts (LAIF)	1,797	-	-	-	-	-	-	1,797	4.48%
Investment Trusts (CAMP)	-	-	-	-	-	-	-	-	0.00%
U.S.Treasury Market Acct.	47	-	-	-	-	-	-	47	0.12%
U.S.Treasury Bill/Note	-	63	142	85	-	-	-	290	0.73%
Certificates of Deposit	-	-	-	-	-	-	-	-	0.00%
Total Dollars	\$ 18,464	\$2,996	\$142	\$1,110	\$0	\$17,370	\$0	\$ 40,082	100.00%
Total Percents	46.07%	7.47%	0.35%	2.77%	0.00%	43.34%	0.00%	100.00%	

Investments are shown at Face Value, in thousands.

# **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

11/30/2018

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	2,881,506	0.600	07/01/2013	2,881,506		1	0.600	2,881,506	SYS79003	79003	2,881,506
Federal Home Loan Ba	USBT	1,271,000	2.030	07/31/2018	1,262,041	12/03/2018	2	2.072	1,271,000	313385R73	26639	1,270,857
Fund Total and Average		\$ 4,152,506	1.038		\$ 4,143,547		1	1.051	\$ 4,152,506			\$ 4,152,363

LEC Issue #1 2010B DS Fund

US Bank Trust	USB	5,026,281	0.600	07/01/2013	5,026,281		1	0.600	5,026,281	SYS79004	79004	5,026,281
Federal Home Loan Ba	USBT	1,460,000	2.030	07/31/2018	1,449,709	12/03/2018	2	2.072	1,460,000	313385R73	26640	1,459,835
Fund Total and Average		\$ 6,486,281	0.922		\$ 6,475,990		1	0.931	\$ 6,486,281			\$ 6,486,116

LEC Issue #2 2010A DS Fund

US Bank Trust	USB	1,741,220	0.600	07/01/2013	1,741,220		1	0.600	1,741,220	SYS79011	79011	1,741,220
Federal Home Loan Ba	USBT	838,000	2.030	07/31/2018	832,083	12/03/2018	2	2.072	838,000	313385R73	26641	837,905
Fund Total and Average		\$ 2,579,220	1.065		\$ 2,573,313		1	1.078	\$ 2,579,220			\$ 2,579,125

LEC Issue #2 2010B DS Fund

US Bank Trust	USB	2,414,808	0.600	07/01/2013	2,414,808		1	0.600	2,414,808	SYS79012	79012	2,414,808
Federal Home Loan Ba	USBT	702,000	2.030	07/31/2018	697,052	12/03/2018	2	2.072	702,000	313385R73	26642	701,921
Fund Total and Average		\$ 3,116,808	0.922		\$ 3,111,860		1	0.932	\$ 3,116,808			\$ 3,116,729

LEC Issue#1 2017A DS Fund

Federal Home Loan Ba	USBT	248,000	2.030	07/31/2018	246,252	12/03/2018	2	2.072	248,000	313385R73	26643	247,972
Fund Total and Average		\$ 248,000	2.030		\$ 246,252		2	2.073	\$ 248,000			\$ 247,972
GRAND TOTALS:		\$ 16,582,815	0.990		\$ 16,550,962		1	1.001	\$ 16,582,815			\$ 16,582,305

\*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 11/30/2018



Northern California Power Agency  
Treasurer's Report  
11/30/2018

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	36,888	0.600	07/01/2013	36,888		1	0.600	36,888	SYS79005	79005	36,888
U.S. Treasury	USB	82,000	2.214	10/17/2018	81,041	04/25/2019	145	2.271	81,205	912796QC6	26698	81,268
U.S. Treasury	USB	85,000	1.625	02/27/2018	84,641	06/30/2019	211	1.945	84,525	912828WS5	26538	84,845
Federal Farm Credit	USB	4,360,000	1.660	06/08/2016	4,360,000	05/25/2021	906	1.659	4,228,764	3133EGBZ7	26337	4,360,000
Federal Home Loan Mt	USB	150,000	1.125	07/28/2017	146,648	08/12/2021	985	1.699	143,307	3137EAE9	26454	147,761
Federal Home Loan Ba	USB	4,100,000	2.125	09/28/2017	4,168,306	08/10/2022	1,287	1.760	3,987,414	313379Q69	26463	4,150,337
Fund Total and Average		\$ 8,813,888	1.869		\$ 8,877,524		1068	1.711	\$ 8,562,103			\$ 8,861,099

LEC Iss#1 2010B BABS Subs Resv

US Bank Trust	USB	140	0.600	07/01/2013	140		1	0.600	140	SYS79006	79006	140
U.S. Treasury	USB	38,000	1.823	02/27/2018	37,349	01/31/2019	61	1.872	37,858	912796PP8	26534	37,883
U.S. Treasury	USB	37,000	2.214	10/17/2018	36,567	04/25/2019	145	2.271	36,641	912796QC6	26699	36,670
Federal Home Loan Ba	USB	2,145,000	3.375	07/28/2017	2,255,146	08/12/2020	559	1.540	2,162,375	313370E38	26455	2,203,695
Fund Total and Average		\$ 2,220,140	3.330		\$ 2,329,202		544	1.557	\$ 2,237,014			\$ 2,278,388

LEC Issue #2 2010B DSR BABS

US Bank Trust	USB	377	0.600	07/01/2013	377		1	0.600	377	SYS79013	79013	377
U.S. Treasury	USB	25,000	1.823	02/27/2018	24,572	01/31/2019	61	1.872	24,906	912796PP8	26535	24,923
U.S. Treasury	USB	23,000	2.214	10/17/2018	22,731	04/25/2019	145	2.271	22,777	912796QC6	26700	22,795
Federal Home Loan Ba	USB	1,025,000	4.375	07/28/2017	1,082,708	07/01/2019	212	1.400	1,035,301	3133XU3G6	26456	1,042,487
Fund Total and Average		\$ 1,073,377	4.270		\$ 1,130,388		207	1.429	\$ 1,083,361			\$ 1,090,582
GRAND TOTALS:		\$ 12,107,405	2.356		\$ 12,337,114		894	1.658	\$ 11,882,478.			\$ 12,230,069

\*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 11/30/2018  
Investment #26337 FFCB Callable anytime



**Northern California Power Agency  
Treasurer's Report**

**11/30/2018**

**LEC O & M Reserve**

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		1,723,705	2.157	07/01/2013	1,723,705		1	2.157	1,723,705	SYS70047	70047	1,723,705
Union Bank of Califo	UBOC	47,236	0.002	07/18/2013	47,236		1	0.002	47,236	SYS70041	70041	47,236
Federal National Mtg	UBOC	2,933,000	1.875	08/28/2015	2,998,142	02/19/2019	80	1.220	2,929,539	3135G0ZA4	26248	2,937,052
Federal Home Loan Ba	USB	3,615,000	1.540	06/30/2017	3,613,952	06/05/2020	552	1.550	3,547,689	3130ABJQ0	26440	3,614,459
Federal National Mtg	UBOC	3,000,000	1.300	06/30/2016	3,000,000	06/30/2020	577	1.300	2,927,310	3136G3UJ2	26341	3,000,000
<b>Fund Total and Average</b>		<b>\$ 11,318,941</b>	<b>1.651</b>		<b>\$ 11,383,035</b>		<b>350</b>	<b>1.484</b>	<b>\$ 11,175,479</b>			<b>\$ 11,322,462</b>
<b>GRAND TOTALS:</b>		<b>\$ 11,318,941</b>	<b>1.651</b>		<b>\$ 11,383,035</b>		<b>350</b>	<b>1.484</b>	<b>\$ 11,175,479</b>			<b>\$ 11,322,462</b>

\*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 11/30/2018



Northern California Power Agency  
Treasurer's Report

11/30/2018

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		73,264	2.157	07/01/2013	73,264		1	2.157	73,264	SYS70046	70046	73,264
Fund Total and Average		\$ 73,264	2.157		\$ 73,264		1	2.157	\$ 73,264			\$ 73,264
GRAND TOTALS:		\$ 73,264	2.157		\$ 73,264		1	2.157	\$ 73,264.			\$ 73,264

\*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 11/30/2018



**Lodi Energy Center Project Participant Committee**

**LEC Financial Reports**

AGENDA ITEM NO.: 8

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**Date:** December 10, 2018

**To:** Lodi Energy Center Project Participant Committee

**Subject:** October 31, 2018 Financial Reports (Unaudited)

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

		October	
		2018	2017
<b>ASSETS</b>			
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	\$	72,868	\$ 72,037
Interest receivable		349	38
Inventory and supplies - at average cost		2,110,855	2,110,854
Prepaid insurance		56,681	52,002
Due from (to) Agency, net		24,795,518	19,591,687
<b>TOTAL CURRENT ASSETS</b>		<b>27,036,271</b>	<b>21,826,618</b>
<b>RESTRICTED ASSETS</b>			
Cash and cash equivalents		5,868,520	3,850,616
Investments		29,299,208	30,417,686
Interest receivable		127,517	151,896
<b>TOTAL RESTRICTED ASSETS</b>		<b>35,295,245</b>	<b>34,420,198</b>
<b>ELECTRIC PLANT</b>			
Electric plant in service		423,810,113	423,725,092
Less: accumulated depreciation		(86,424,994)	(71,811,564)
		337,385,119	351,913,528
Construction work-in-progress		182,398	107,024
<b>TOTAL ELECTRIC PLANT</b>		<b>337,567,517</b>	<b>352,020,552</b>
<b>OTHER ASSETS</b>			
Unamortized excess cost on advance refunding of debt, net		2,027,711	-
Regulatory assets		24,202,517	22,373,464
<b>TOTAL OTHER ASSETS</b>		<b>26,230,228</b>	<b>22,373,464</b>
<b>TOTAL ASSETS</b>	<b>\$</b>	<b>426,129,261</b>	<b>\$ 430,640,832</b>

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

	October	
	2018	2017
<b>LIABILITIES &amp; NET POSITION</b>		
<b>CURRENT LIABILITIES</b>		
Accounts and retentions payable	\$ 5,867,079	\$ 3,490,079
Operating reserves	14,136,505	13,040,781
Current portion of long-term debt	11,480,000	10,355,000
Accrued interest payable	6,067,700	6,677,891
<b>TOTAL CURRENT LIABILITIES</b>	<b>37,551,284</b>	<b>33,563,751</b>
<b>NON-CURRENT LIABILITIES</b>		
Operating reserves and other deposits	1,717,110	1,715,988
Long-term debt, net	331,158,767	340,796,994
<b>TOTAL NON-CURRENT LIABILITIES</b>	<b>332,875,877</b>	<b>342,512,982</b>
<b>TOTAL LIABILITIES</b>	<b>370,427,161</b>	<b>376,076,733</b>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Regulatory credits	40,520,211	41,861,971
<b>NET POSITION</b>		
Invested in capital assets, net of related debt	(17,203,910)	(16,248,633)
Restricted	17,120,848	16,584,826
Unrestricted	15,264,951	12,365,935
<b>TOTAL NET POSITION</b>	<b>15,181,889</b>	<b>12,702,128</b>
<b>TOTAL LIABILITIES AND NET POSITION</b>	<b>\$ 426,129,261</b>	<b>\$ 430,640,832</b>

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

		Four Months Ended October	
		2018	2017
<b>SALES FOR RESALE</b>			
Participants	\$	11,002,484	\$ 11,876,963
Other		33,764,322	20,879,196
<b>TOTAL SALES FOR RESALE</b>		<b>44,766,806</b>	<b>32,756,159</b>
<b>OPERATING EXPENSES</b>			
Operations		19,891,042	13,020,186
Depreciation		4,871,477	4,870,186
Purchased power		2,169,533	1,833,367
Maintenance		1,235,981	1,174,246
Administrative and general		1,590,988	1,536,828
Transmission		319,876	449,042
Intercompany (sales) purchases		97,696	88,311
<b>TOTAL OPERATING EXPENSES</b>		<b>30,176,593</b>	<b>22,972,166</b>
<b>NET OPERATING REVENUES</b>		<b>14,590,213</b>	<b>9,783,993</b>
<b>OTHER REVENUES (EXPENSES)</b>			
Interest expense		(4,919,337)	(5,200,604)
Interest income		713,473	299,816
Other		1,140,043	890,311
<b>TOTAL OTHER REVENUES (EXPENSES)</b>		<b>(3,065,821)</b>	<b>(4,010,477)</b>
<b>FUTURE RECOVERABLE AMOUNTS</b>		<b>414,003</b>	<b>721,009</b>
<b>REFUNDS TO PARTICIPANTS</b>		<b>(39)</b>	<b>(28)</b>
<b>INCREASE IN NET POSITION</b>		<b>11,938,356</b>	<b>6,494,497</b>
<b>NET POSITION</b>			
Beginning of year		3,243,533	6,207,631
End of period	\$	15,181,889	\$ 12,702,128









**Lodi Energy Center Project Participant Committee**

**LEC Financial Reports**

AGENDA ITEM NO.: 8

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**Date:** December 10, 2018

**To:** Lodi Energy Center Project Participant Committee

**Subject:** November 30, 2018 Financial Reports (Unaudited)

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

		November	
		2018	2017
<b>ASSETS</b>			
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	\$	73,264	\$ 72,037
Interest receivable		87	102
Inventory and supplies - at average cost		2,110,855	2,110,854
Prepaid insurance		6,476	4,413
Due from (to) Agency, net		23,882,030	19,191,090
<b>TOTAL CURRENT ASSETS</b>		<b>26,072,712</b>	<b>21,378,496</b>
<b>RESTRICTED ASSETS</b>			
Cash and cash equivalents		11,994,680	11,405,251
Investments		28,675,801	28,207,965
Interest receivable		157,412	152,895
<b>TOTAL RESTRICTED ASSETS</b>		<b>40,827,893</b>	<b>39,766,111</b>
<b>ELECTRIC PLANT</b>			
Electric plant in service		423,846,087	423,757,556
Less: accumulated depreciation		(87,643,862)	(73,029,422)
		336,202,225	350,728,134
Construction work-in-progress		182,398	107,024
<b>TOTAL ELECTRIC PLANT</b>		<b>336,384,623</b>	<b>350,835,158</b>
<b>OTHER ASSETS</b>			
Unamortized excess cost on advance refunding of debt, net		2,002,044	-
Regulatory assets		24,340,518	22,553,716
<b>TOTAL OTHER ASSETS</b>		<b>26,342,562</b>	<b>22,553,716</b>
<b>TOTAL ASSETS</b>	<b>\$</b>	<b>429,627,790</b>	<b>\$ 434,533,481</b>

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

	November	
	2018	2017
<b>LIABILITIES &amp; NET POSITION</b>		
<b>CURRENT LIABILITIES</b>		
Accounts and retentions payable	\$ 6,193,764	\$ 3,245,136
Operating reserves	14,258,264	13,208,514
Current portion of long-term debt	11,480,000	10,355,000
Accrued interest payable	10,418,698	11,137,599
<b>TOTAL CURRENT LIABILITIES</b>	<b>42,350,726</b>	<b>37,946,249</b>
<b>NON-CURRENT LIABILITIES</b>		
Operating reserves and other deposits	1,717,131	1,715,995
Long-term debt, net	331,150,169	340,762,287
<b>TOTAL NON-CURRENT LIABILITIES</b>	<b>332,867,300</b>	<b>342,478,282</b>
<b>TOTAL LIABILITIES</b>	<b>375,218,026</b>	<b>380,424,531</b>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Regulatory credits	40,383,830	41,758,065
<b>NET POSITION</b>		
Invested in capital assets, net of related debt	(18,129,491)	(17,115,161)
Restricted	18,302,498	17,471,030
Unrestricted	13,852,927	11,995,016
<b>TOTAL NET POSITION</b>	<b>14,025,934</b>	<b>12,350,885</b>
<b>TOTAL LIABILITIES AND NET POSITION</b>	<b>\$ 429,627,790</b>	<b>\$ 434,533,481</b>

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

		<b>Five Months Ended November</b>	
		<b>2018</b>	<b>2017</b>
<b>SALES FOR RESALE</b>			
Participants	\$	10,384,818	\$ 13,284,937
Other		43,041,028	26,410,994
<b>TOTAL SALES FOR RESALE</b>		<b>53,425,846</b>	<b>39,695,931</b>
<b>OPERATING EXPENSES</b>			
Operations		26,680,507	16,861,232
Depreciation		6,090,345	6,088,044
Purchased power		2,717,676	2,431,498
Maintenance		1,478,962	1,537,549
Administrative and general		1,944,307	1,880,325
Transmission		443,367	508,569
Intercompany (sales) purchases		97,696	107,434
<b>TOTAL OPERATING EXPENSES</b>		<b>39,452,860</b>	<b>29,414,651</b>
<b>NET OPERATING REVENUES</b>		<b>13,972,986</b>	<b>10,281,280</b>
<b>OTHER REVENUES (EXPENSES)</b>			
Interest expense		(6,149,171)	(6,500,755)
Interest income		792,517	352,649
Other		1,614,125	1,108,854
<b>TOTAL OTHER REVENUES (EXPENSES)</b>		<b>(3,742,529)</b>	<b>(5,039,252)</b>
<b>FUTURE RECOVERABLE AMOUNTS</b>		<b>552,004</b>	<b>901,261</b>
<b>REFUNDS TO PARTICIPANTS</b>		<b>(60)</b>	<b>(35)</b>
<b>INCREASE IN NET POSITION</b>		<b>10,782,401</b>	<b>6,143,254</b>
<b>NET POSITION</b>			
Beginning of year		3,243,533	6,207,631
End of period	\$	14,025,934	\$ 12,350,885

**Lodi Energy Center  
FY 2019 Operating Costs  
As of November 30, 2018**

	Annual Budget	Actual	Remaining	YTD % Remaining	Notes
<b>Routine O&amp;M Costs</b>					
Variable	\$ 4,733,380	\$ 1,541,391	\$ 3,191,989	67%	<b>A</b>
Fixed	3,443,662	1,302,993	2,140,669	62%	
Administration	205,529	49,037	156,492	76%	
Mandatory Costs	298,336	170,504	127,832	43%	
Routine O&M Costs without Labor	8,680,907	3,063,925	5,616,982	65%	
Labor	5,284,165	2,061,566	3,222,599	61%	<b>B C</b>
<b>Total Routine O&amp;M Cost</b>	<b>13,965,072</b>	<b>5,125,491</b>	<b>8,839,581</b>	<b>63%</b>	
<b>Other Costs</b>					
Fuel	33,092,116	22,619,724	10,472,392	32%	
CA ISO Charges	550,660	443,367	107,293	19%	
CA ISO Purchased Energy	5,113,848	2,717,676	2,396,172	47%	<b>B C</b>
Debt Service	26,079,852	10,866,605	15,213,247	58%	
Insurance	625,976	260,823	365,153	58%	
Other Costs	124,926	48,201	76,725	61%	
Generation Services Shared	368,963	122,696	246,267	67%	
Administrative & General (Allocated)	2,182,080	799,695	1,382,385	63%	<b>B C</b>
Power Management Allocated Costs	1,446,134	602,556	843,578	58%	
<b>Total O&amp;M Cost</b>	<b>83,549,627</b>	<b>43,606,834</b>	<b>39,942,793</b>	<b>48%</b>	
<b>Projects</b>					
Operations & Maintenance	52,000	41,020	10,980	21%	<b>B C</b>
Capital	100,000	-	100,000	100%	
Maintenance Reserve	1,461,107	608,795	852,312	58%	
<b>Total Projects</b>	<b>1,613,107</b>	<b>649,815</b>	<b>963,292</b>	<b>60%</b>	
<b>Annual Cost</b>	<b>85,162,734</b>	<b>44,256,649</b>	<b>40,906,085</b>	<b>48%</b>	
<b>Less: Third Party Revenue</b>					
Interest Income	385,845	206,795	179,050	46%	<b>B C</b>
ISO Energy Sales	52,414,938	42,215,456	10,199,482	19%	
Ancillary Services Sales	1,028,631	825,572	203,059	20%	
	53,829,414	43,247,823	10,581,591	20%	
<b>Net Annual Cost to Participants</b>	<b>\$ 31,333,320</b>	<b>\$ 1,008,826</b>	<b>\$ 30,324,494</b>	<b>97%</b>	
<b>Total Variable Costs</b>	<b>43,490,004</b>	<b>27,322,158</b>	<b>16,167,846</b>		
<b>Total Fixed Costs</b>	<b>41,672,730</b>	<b>16,934,491</b>	<b>24,738,239</b>		
	<b>\$ 85,162,734</b>	<b>\$ 44,256,649</b>	<b>\$ 40,906,085</b>		
<b>Net Cumulative Generation (MWh)</b>	<b>1,304,122</b>	<b>786,637</b>			
<b>Total O&amp;M Cost Per MWh</b>	<b>\$ 64.07</b>	<b>\$ 55.43</b>			
<b>Net Annual Cost Per MWh</b>	<b>\$ 24.03</b>	<b>\$ 1.28</b>			

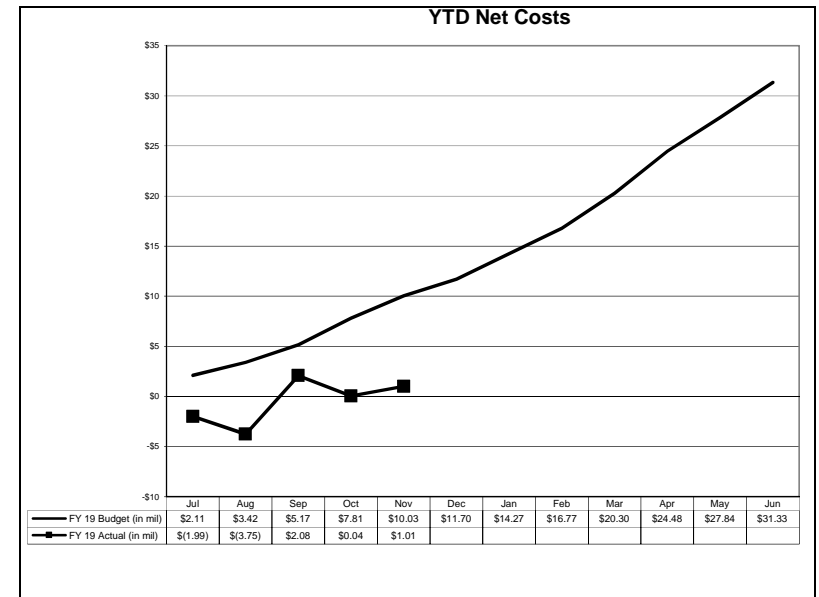
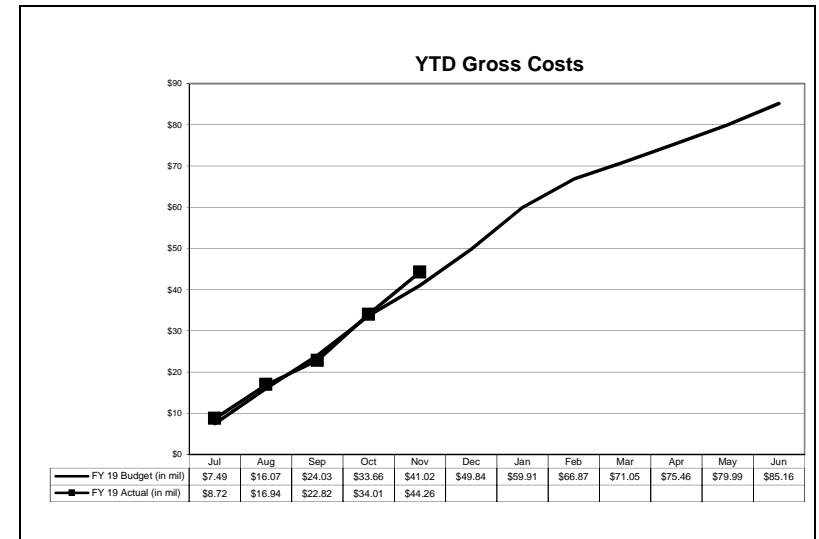
**Footnotes:**

**General** - The plant ran 28 days during the month.  
November A&G allocation and generation services allocation are estimated.

**A** - Payments for annual CEC fee.

**B** - Higher fuel costs due to higher generation and slightly higher price per mmBtu.

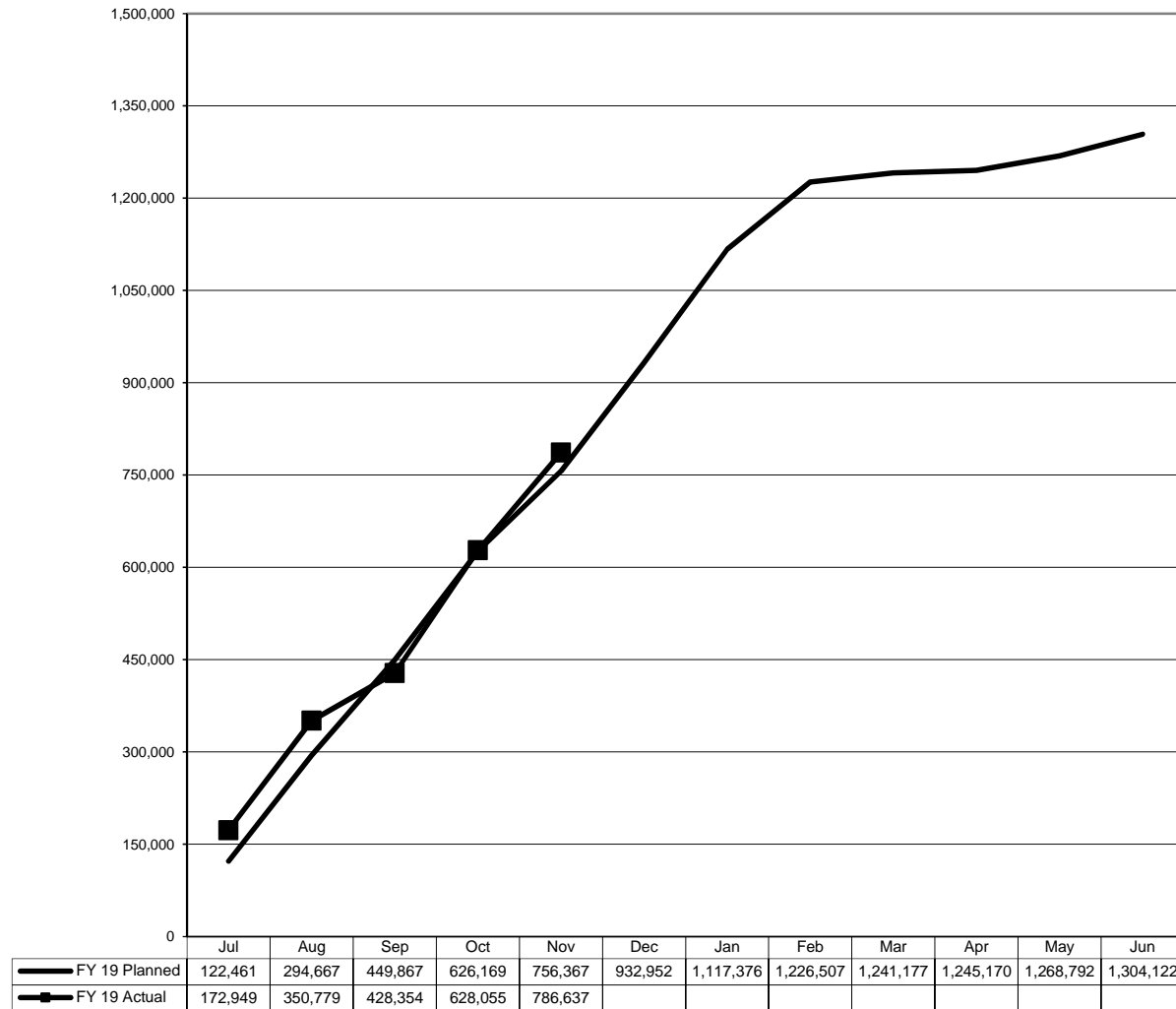
**C** - Higher than budgeted CA ISO costs due to higher generation and GMC costs.



# Annual Budget LEC Generation Analysis Planned vs. Actual FY 2019

In MWh

## Lodi Energy Center







**Lodi Energy Center Project Participant Committee**

**LEC GHG Reports**

AGENDA ITEM NO.: 9

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**Date:** December 10, 2018

**To:** Lodi Energy Center Project Participant Committee

**Subject:** GHG Reports (excerpted from monthly ARB)

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2013 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center																
	Actual													Compliance Year 2013		
IDENTIFIER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total	Charge Code	Source
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		Forecast/Meter
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		Forecast/Meter
Emissions Factor (MT/MMBtu)	0	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054			MARS
HVAC/Water Heater (MT)													86,000			
Monthly MT Emissions (MT)	0	32,027	39,019	48,280	51,403	12,397	31,281	46,967	36,371	35,091	37,365	39,827	52,178	462,206		derived
Cumulative MT Obligation (MT)	0	32,027	71,046	119,326	170,730	183,127	214,407	261,375	297,745	332,836	370,201	410,028	462,206	462,206		derived
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	37,500	0	46,290	498,133		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)	92,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	37,500	0	46,290	498,133		
NCPA Compliance Instrument Purchases (for LEC)																
Auction Purchases	47,000	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)	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			CITSS
Total Monthly Activity (MT)	139,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	37,500	0	46,290	545,133		derived
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	498,843	498,843	545,133	545,133		derived
MTA Shortfall (MT)	(139,695)	(113,018)	(73,999)	(39,363)	(92,959)	(131,194)	(130,542)	(85,174)	(151,004)	(128,507)	(128,642)	(88,815)	(82,927)	(82,927)	MTA SHORTFALL	derived

2014 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center																
	Actual												Compliance Year 2014	Cumulative Totals		
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total	Total	Charge Code	Source
Energy (MWh)	136,604	156,089	120,489	55,378	71,210	51,037	118,473	69,006	178,831	197,715	51,636	106,338	1,312,806	2,523,750		Forecast/Meter
Gas Schedule (MMBtu)	951,700	1,092,730	858,805	391,272	512,068	371,695	836,762	496,327	1,251,547	1,371,546	372,826	759,691	9,266,969	17,830,293		Forecast/Meter
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054			MARS
HVAC/Water Heater (MT)												173,000				
Monthly MT Emissions (MT)	51,358	58,969	46,345	21,115	27,634	20,059	45,156	26,784	67,540	74,015	20,120	41,170	500,265	962,471		derived
Cumulative MT Obligation (MT)	513,564	572,533	618,879	639,994	667,628	687,686	732,842	759,626	827,166	901,181	782,385	823,555	823,555	823,555		derived
Compliance Instrument Participant Transfers (to LEC)																
Auction Allowances	102,347	40,000	48,066	25,000	1,290	163,248	0	0	13,586	50,520	80,350	350	524,757	1,022,890		CITSS
Secondary Market Allowances	0	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	0	CITSS
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CITSS
Total Compliance Instrument Participant Transfers (MT)	102,347	40,000	48,066	25,000	1,290	163,248	0	0	13,586	50,520	80,350	350	524,757	1,022,890		
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	138,916	0	138,916	138,916		CITSS
Total Monthly Activity (MT)	102,347	40,000	48,066	25,000	1,290	163,248	0	0	13,586	50,520	80,350	350	524,757	1,069,890		derived
Cumulative MT Account Balance [MTA] (MT)	647,480	687,480	735,546	760,546	761,836	925,084	925,084	925,084	938,670	989,190	930,624	930,974	930,974	930,974		derived
MTA Shortfall (MT)	(133,916)	(114,947)	(116,667)	(120,552)	(94,208)	(237,398)	(192,242)	(165,458)	(111,504)	(88,009)	(148,239)	(107,419)	(107,419)	(107,419)	MTA SHORTFALL	derived

2015 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center																
	Actual												Compliance Year 2015	Cumulative Totals		
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total	Total	Charge Code	Source
Energy (MWh)	196,019	151,600	184,507	181,244	91,067	142,275	103,883	137,266	131,608	165,737	75,231	131,779	1,692,216	4,215,967		Forecast/Meter
Gas Schedule (MMBtu)	1,368,474	1,073,330	1,299,294	1,269,481	646,027	1,009,450	740,553	971,283	927,730	1,171,129	541,136	940,340	11,958,227	29,788,520		Forecast/Meter
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054				MARS
HVAC/Water Heater (MT)																
Monthly MT Emissions (MT)	73,850	57,922	70,116	68,508	34,863	54,475	39,964	52,415	50,065	63,200	29,202	50,745	645,326	1,607,796		derived
Cumulative MT Obligation (MT)	897,404	955,327	1,025,443	1,093,951	1,128,814	1,183,288	1,223,252	1,275,668	1,325,733	1,388,933	593,540	644,285	644,285	644,285		derived
Compliance Instrument Participant Transfers (to LEC)																
Auction Allowances	41,342	250	172,100	15,000	86,000	107,327	104,000	26,021	0	58,201	375	200	610,816	1,633,706		CITSS
Secondary Market Allowances	0	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	0	CITSS
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CITSS
Total Compliance Instrument Participant Transfers (MT)	41,342	250	172,100	15,000	86,000	107,327	104,000	26,021	0	58,201	375	200	610,816	1,633,706		
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	824,595	0	824,595	963,511		CITSS
Total Monthly Activity (MT)	41,342	250	172,100	15,000	86,000	107,327	104,000	26,021	0	58,201	375	200	610,816	1,680,706		derived
Cumulative MT Account Balance [MTA] (MT)	972,316	972,566	1,144,666	1,159,666	1,245,666	1,352,993	1,456,993	1,483,014	1,483,014	1,541,215	716,995	717,195	717,195	717,195		derived
MTA Shortfall (MT)	(74,912)	(17,239)	(119,223)	(65,715)	(116,852)	(169,705)	(233,741)	(207,346)	(157,281)	(152,282)	(123,455)	(72,910)	(72,910)	(72,910)	MTA SHORTFALL	derived

2016 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center																
	Actual												Compliance Year 2016	Cumulative Totals		
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total	Total	Charge Code	Source
Energy (MWh)	97,230	27,160	91,578	45,437	3,423	66,596	76,008	31,653	25,597	20,636	17,488	28,418	531,223	4,747,190		Forecast/Meter
Gas Schedule (MMBtu)	695,120	194,179	678,033	339,504	27,754	485,792	547,510	234,782	192,679	158,835	158,835	214,109	3,927,132	33,715,652		Forecast/Meter
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054				MARS
HVAC/Water Heater (MT)																
Monthly MT Emissions (MT)	37,512	10,479	36,590	18,321	1,498	26,216	29,546	12,670	10,398	8,572	8,572	11,554	211,928	1,819,724		derived
Cumulative MT Obligation (MT)	681,798	692,276	728,867	747,188	748,686	774,901	804,448	817,118	827,516	836,087	650,684	662,238	662,238	662,238		derived
Compliance Instrument Participant Transfers (to LEC)																
Auction Allowances	211,481	0	2,500	31,000	0	55,000	0	56,600	0	0	0	0	356,581	1,990,287		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)	211,481	0	2,500	31,000	0	55,000	0	56,600	0	0	0	0	356,581	1,990,287		
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	193,975	0	193,975	1,157,486		CITSS
Total Monthly Activity (MT)	211,481	0	2,500	31,000	0	55,000	0	56,600	0	0	0	0	356,581	2,037,287		derived
Cumulative MT Account Balance [MTA] (MT)	928,676	928,676	931,176	962,176	962,176	1,017,176	1,017,176	1,073,776	1,073,776	1,073,776	879,801	879,801	879,801	879,801		derived
MTA Shortfall (MT)	(246,878)	(236,400)	(202,309)	(214,988)	(213,490)	(242,275)	(212,728)	(256,658)	(246,260)	(237,689)	(229,117)	(217,563)	(217,563)	(217,563)	MTA SHORTFALL	derived

2017 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center															
IDENTIFIER	Actual											Compliance Year 2017	Cumulative Totals	Charge Code	Source
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total		
Energy (MWh)	38,917	15,337	7,086	0	3,436	35,997	54,015	66,209	93,620	136,041	126,574	149,304	726,534	1,088,590	Forecast/Meter
Gas Schedule (MMBtu)	301,781	115,019	59,077	0	29,558	266,056	403,302	464,997	675,267	969,402	901,245	1,063,441	5,249,146	7,830,656	Forecast/Meter
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054			MARS
HVAC/Water Heater (MT)															
Monthly MT Emissions (MT)	16,286	6,207	3,188	0	1,595	14,358	21,764	25,094	36,441	52,314	48,636	57,389	283,270	2,102,994	derived
Cumulative MT Obligation (MT)	678,524	684,731	687,919	687,919	689,514	703,872	725,636	750,729	787,170	839,484	824,883	882,271	882,271	882,271	derived
Compliance Instrument Participant Transfers (to LEC)															
Auction Allowances	0	0	5,000	0	0	0	0	0	67,058	0	20,500	92,321	184,879	2,175,166	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)	0	0	5,000	0	0	0	0	0	67,058	0	20,500	92,321	184,879	2,175,166	
														0	
NCPA Compliance Instrument Purchases (for LEC)														0	
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	63,237	0	63,237	1,220,723	CITSS
Total Monthly Activity (MT)	0	0	5,000	0	0	0	0	0	67,058	0	20,500	92,321	184,879	256,666	derived
Cumulative MT Account Balance [MTA] (MT)	879,801	879,801	884,801	884,801	884,801	884,801	884,801	884,801	951,859	951,859	909,122	1,001,443	1,001,443	1,001,443	derived
MTA Shortfall (MT)	(201,277)	(195,070)	(196,882)	(196,882)	(195,287)	(180,929)	(159,165)	(134,072)	(164,689)	(112,375)	(84,239)	(119,172)	(119,172)	(119,172)	MTA SHORTFALL derived

2018 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center																
	Actual										Estimated		Compliance Year 2018	Cumulative Totals		
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total	Total	Charge Code	Source
Energy (MWh)	141,193	110,674	138,464	14,747	8,838	35,406	172,949	177,830	77,575	199,698	43,673	193,192	1,314,239	6,787,963		Forecast/Meter
Gas Schedule (MMBtu)	1,007,872	801,081	997,246	115,836	73,178	270,922	1,220,655	1,254,720	559,063	1,404,033	314,442	1,390,983	9,410,032	48,374,830		Forecast/Meter
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054		0		MARS
HVAC/Water Heater (MT)														0		
Monthly MT Emissions (MT)	54,390	43,230	53,816	6,251	3,949	14,620	65,873	67,711	30,170	75,769	16,969	75,064	507,812	2,610,807		derived
Cumulative MT Obligation (MT)	936,661	979,891	1,033,708	1,039,959	1,043,908	1,058,528	1,124,401	1,192,112	1,222,282	1,298,050	430,524	505,589	505,589	505,589		derived
Compliance Instrument Participant Transfers (to LEC)																
Auction Allowances	159,100	0	34,940	16,885	53,452	35,500	33,232	140,431	61,315	4,049	33,452	0	572,356	2,747,522		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)	159,100	0	34,940	16,885	53,452	35,500	33,232	140,431	61,315	4,049	33,452	0	572,356	2,747,522		
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	884,495	0	884,495	2,105,218		CITSS
Total Monthly Activity (MT)	159,100	0	34,940	16,885	53,452	35,500	33,232	140,431	61,315	4,049	33,452	0	572,356	2,794,522		derived
Cumulative MT Account Balance [MTA] (MT)	1,160,543	1,160,543	1,195,483	1,212,368	1,265,820	1,301,320	1,334,552	1,474,983	1,536,298	1,540,347	689,304	689,304	689,304	689,304		derived
MTA Shortfall (MT)	(223,882)	(180,652)	(161,775)	(172,409)	(221,912)	(242,792)	(210,151)	(282,871)	(314,016)	(242,297)	(258,780)	(183,715)	(183,715)	(183,715)	MTA SHORTFALL	derived

2019 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center																
	Estimated												Compliance Year 2019	Cumulative Totals		
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total	Total	Charge Code	Source
Energy (MWh)	192,035	158,680	24,369	0	19,692	91,658	0	0	0	0	0	0	486,434	7,274,397		Forecast/Meter
Gas Schedule (MMBtu)	1,382,655	1,142,496	175,454	0	141,781	659,936	0	0	0	0	0	0	3,502,323	51,877,152		Forecast/Meter
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054		0		MARS
HVAC/Water Heater (MT)														0		
Monthly MT Emissions (MT)	74,615	61,655	9,468	0	7,651	35,613	0	0	0	0	0	0	189,003	2,799,810		derived
Cumulative MT Obligation (MT)	580,204	641,858	651,327	651,327	658,978	694,592	694,592	694,592	694,592	694,592	694,592	694,592	694,592	694,592		derived
Compliance Instrument Participant Transfers (to LEC)																
Auction Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	2,747,522		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)	0	0	0	0	0	0	0	0	0	0	0	0	0	2,747,522		
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	2,105,218		CITSS
	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total Monthly Activity (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0	2,794,522		derived
Cumulative MT Account Balance [MTA] (MT)	689,304	689,304	689,304	689,304	689,304	689,304	689,304	689,304	689,304	689,304	689,304	689,304	689,304	689,304		derived
MTA Shortfall (MT)	(109,100)	(47,446)	(37,977)	(37,977)	(30,326)	5,288	5,288	5,288	5,288	5,288	5,288	5,288	5,288	5,288	MTA SHORTFALL	derived

Forecast has been updated through June 2019



NCPA All Resources Bill LEC GHG Obligation Detail Report (Cumulative) December 2018																
IDENTIFIER	AZUSA	BART	BIGGS	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)	14,115	33,443	1,358	186,643	9,953	8,325	48,137	10,290	54,289	3,980	13,518	130,477	9,048	523,575		derived
Current MT Compliance Instrument Account (MTA) Balance (MT)	14,115	33,443	1,764	285,170	9,953	8,561	70,083	10,290	77,587	4,179	13,871	130,477	9,048	668,541		derived
MTA Shortfall (MT)	0	0	(406)	(98,527)	(0)	(236)	(21,946)	(0)	(23,298)	(199)	(353)	0	(0)	(144,966)	MTA SHORTFALL	Derived
Monthly GHG Price \$/MT	15.48	15.48	15.48	15.48	15.48	15.48	15.48	15.48	15.48	15.48	15.48	15.48	15.48	15.48	MTA SHORTFALL	ICE Index
GHG Minimum Cash Compliance Obligation (\$)	0	2	0	0	0	0	0	0	0	0	0	0	0	3	MTA SHORTFALL	Derived
Current Month CCA Balance (\$)*	60,991	0	143	0	1,103	4,780	755	0	0	0	0	0	2,652	70,424	CCA BALANCE	Accounting
Net GHG Obligation (\$)	0	2	0	0	0	0	0	0	0	0	0	0	0	3	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

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**Date:** December 10, 2018

**Meeting Date:** December 10, 2018

**To:** Lodi Energy Center Project Participant Committee

**Subject:** Lodi Energy Center 2019 Spring Outage – April 2019

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### Proposal

Approve authorization for the NCPA General Manager to execute agreements and issue purchase orders for maintenance work related to the Lodi Energy Center (LEC) 2019 Spring Outage, for a total cost not to exceed \$2,276,000.

### Background

The Lodi Energy Center has an outage scheduled for April 1-30 for work related to the 2019 Spring Outage. During the outage, the LEC team will complete preventative maintenance work on equipment that cannot be worked on while the unit is operating without affecting the output of the facility. NCPA will hire a number of contractors to perform work during the 2019 Spring Outage.

Listed below is a summary of the work to be performed as a part of the 2019 Spring Outage:

1. Gas Turbine
  - a. Air Filters
  - b. Generator Service Bulletins
  - c. Inlet Paint
  - d. Insulation
2. Steam Turbine
  - a. Condensate Drains
  - b. Heating Blanket Parts
  - c. Condenser Erosion
  - d. Superheater
3. Water Treatment
  - a. General Maintenance
  - b. Water Box
4. Electrical Systems
  - a. GSU Testing
5. HRSG / Steam
  - a. Penetration Seals
  - b. Stack Probe / RATA
  - c. High Energy Pipe Survey
  - d. Hot Spots
6. Balance of Plant

- a. Injection Well Tubing
  - b. Service Water Pipe
  - c. Smoke Detectors
7. Incidentals
- a. Crane
  - b. Toilets
  - c. Trailers / Guard
  - d. Forklift / Manlift
  - e. Scaffold
  - f. Confined Space

Two items merit special attention.

The first is the injection well. During this year's mechanical integrity testing, it was determined that the waste water is communicating with the annual water. The annulus is a special chamber in the well design used to ensure protection of the drinking water reservoirs that the well passes through. Because the double layer of protection is diminished, we are required to service the well and correct this. It is estimated that this work will cost \$500,000. Well work of this nature always has a higher level of risk and additional funding may be sought if problems are encountered.

The second is the stack probe. LEC exhaust gases become extremely stratified. This means that in some areas, emissions readings will be high and other areas will be low. LEC's current stack probe only measures emissions in a single location. The stack testers measure in 16 locations and average. LEC previously received a Notice of Violation for a failed test as a result of this. The solution is to install an Averaging Probe. This probe style has many holes in it to allow for grabbing samples across the stack area.

#### Selection Process

All of the work has been put out for bid to qualified contractors and the lowest priced qualified contractors will be awarded the work.

#### Fiscal Impact

<b>2018 Spring Outage</b>	<b>Anticipated Cost</b>
Gas Turbine	\$210,000
Steam Turbine	\$273,000
Water Treatment	\$110,000
Electrical Systems	\$60,000
HRSG / Steam	\$445,000
Balance of Plant	\$750,000
Incidentals	\$228,000
Contingency	\$200,000
<b>TOTAL</b>	<b>\$2,276,000</b>

The budgetary funds to complete the 2019 Spring Outage include \$849,940 of pre-collected funds in the Maintenance Reserve (Account # 265-009-005-610-044-002). Additional funds in the amount of \$866,000, were anticipated in the Routine O&M budget. Three project items totaling \$850,000 were not anticipated. These include the injection well tubing, sample probe

and the condenser erosion. LEC has additional funds of \$1,644,202 set aside in an account of for the transmission line upgrade project. The transmission line upgrade project is complete. Staff recommends that \$560,060 of these funds be utilized to support the April 2019 outage for these extra items. Staff recommends the balance be retained for consideration of the generator step-up transformer replacement.

Environmental Analysis

These activities are categorically exempt under Class 1 and 2 from the provisions of the California Environmental Quality Act pursuant to Section 15301 (b) and 15302 (c) of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA Commission on September 27, 2013 for this class of work and was filed in San Joaquin County.

Submitted by:

KEN SPEER  
Assistant General Manager  
Generation Services