



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

LEC PPC Agenda

Date: September 9, 2020

Subject: September 14, 2020 Lodi Energy Center Project Participant Committee Meeting

Location: 651 Commerce Drive, Roseville, CA 95678 OR via Teleconference

Time: 10:00 A.M.

***This meeting is being held in accordance with the Brown Act as currently in effect under the State Emergency Services Act, Governor Newsom's Emergency Declaration related to COVID-19, and Governor Newsom's Executive Order N-29-20 issued on March 17, 2020 that allows attendance by LEC PPC Members, staff, and the public to participate and conduct the meeting by teleconference.

In compliance with the Executive Department, State of California, Executive Order N-29-20, and the Brown Act, you may participate in the meeting via teleconference by:

Dial: 1-872-240-3212 Access Code: 327-912-613

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 request. Pursuant to California Government Code Section 54957.5, the following is the location at which the public can view Agendas and other public writings: NCPA, 651 Commerce Drive, Roseville, CA or www.ncpa.com

- 1. Review Safety Procedures
- 2. 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.

3. Meeting Minutes – Approval of August 10, 2020 Regular Meeting Minutes

MONTHLY REPORTS

- **4.** Operational Report for August 2020 (Rafael Santana)
- **5.** Market Data Report for August 2020 Verbal Report (*Zakary Liske*)
- **6. Monthly Asset Report for July 2020** (Michael DeBortoli)
- **7. Bidding Strategies Report** Verbal Report and update regarding bidding strategies and regulation down revenues (*Jesse Shields/Ken Goeke*)

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.

- 8. Treasurer's Report for July 2020– Accept by all Participants
- 9. Financial Report for July 2020 Approve by all Participants
- 10. GHG Reports (excerpted from Monthly ARB) Accept by all Participants

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.

- **11. Northwest Industrial Engine and Compressor Company MTGSA** Staff is seeking approval of a Multi-Task General Services Agreement with Northwest Industrial Engine and Compressor Company, for engine, compressor, pump, and turbine inspections and maintenance services, with a not to exceed amount of \$500,000, for use at all facilities owned and/or operated by NCPA, NCPA Members, SCPPA, and SCPPA Members.
- **12. LEC 2021 Outage Schedule** Staff is seeking approval of the 2021 LEC outage schedule.

 Consent Items pulled for discussion:

BUSINESS ACTION ITEMS

13. Amendment to LEC PMOA Schedule 11 – Staff will present recommended amendments to PMOA Schedule 11 (Management of Cap-and-Trade Program Compliance) for approval.

INFORMATIONAL/ DISCUSSION ITEMS

14. Additional Operational Updates – Staff will provide an update on issues related to Operations.

ADJOURNMENT

Next Regular Meeting: Monday, October 12, 2020 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.



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

LEC PPC Meeting Minutes

Date: August 10, 2020

Time: 10:00am

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

Subject: Lodi Energy Center Project Participant Committee Meeting

1. Review Safety Procedures

The PPC reviewed the NCPA Safety Procedures and assigned safety roles.

2. Call Meeting to Order and Roll Call

The PPC meeting was called to order at 10:01am by Chairman Jiayo Chiang. He asked that roll be called for the Project Participants as listed below.

PPC Meeting Attendance Summary					
Participant	Attendance	Particulars / GES			
Azusa - Torres	Present	2.7857%			
BART - Lloyd	Absent	6.6000%			
Biggs - Sorenson	Present	0.2679%			
CDWR - Alqaser	Present	33.5000%			
Gridley - Eckert	Present	1.9643%			
Healdsburg - Crowley	Absent	1.6428%			
Lodi - Chiang	Present	9.5000%			
Lompoc - Singh	Absent	2.0357%			
MID - Costalupes	Present	10.7143%			
Plumas-Sierra - Brozo	Absent	0.7857%			
PWRPA - Bradley	Present	2.6679%			
SVP - Wong	Present	25.7500%			
Ukiah - Grandi	Absent	1.7857%			
Summary					
Present	8	87.1501%			
Absent	5	12.8499%			
Quorum by #:	Yes	·			
Quorum by GES:	Yes	·			

Meeting Date: August 10, 2020

Public Forum

Chairman Chiang asked if any members of the public were on the phone 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. At 10:15am Brad Tuffley, Jonathan Cristiani and Frank Jacob from Black & Veatch joined the call.

3. <u>Meeting Minutes</u>

The draft minutes from the July 6, 2020 were considered. The LEC PPC considered the following motion:

Date: 8/10/2020

Motion: The PPC approves the minutes from the July 6, 2020 regular LEC PPC meeting.

Moved by: CDWR Seconded by: Lodi

Discussion: There was no further discussion

Vote Summary on Motion				
Participant	Vote	Particulars / GES		
Azusa	Yes	2.7857%		
BART	Absent	6.6000%		
Biggs	Yes	0.2679%		
CDWR	Yes	33.5000%		
Gridley	Yes	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	Yes	25.7500%		
Ukiah	Absent	1.7857%		
Vote Summary				
Total Ayes	8	87.1501%		
Total Noes	0	0.0000%		
Total Abstain	0	0.0000%		
Total Absent	5	12.8499%		
Result:	Motion Passes			

MONTHLY REPORTS

4. Operational Reports for July 2020

Rafael Santana presented the Operational Report for July 2020. There were no OSHA recordable accidents and no NERC/WECC violations. There was a permit NOV with San Joaquin Valley Air Pollution Control District. During tuning after the forced outage in June 2020, the violation was for exceeding CO. There were (2) outages on July 11th and July 26th. The first outage had no real vibration with the gas turbine and the second one had a low-pressure bypass valve that would not open. The next planned outage is April 2021. Planning continues for the steam turbine and generator six-week major outage in 2022/2023.

The operational report reflected monthly production of 72,038 MWH, 307 service hours, and equivalent operating availability of 94.5%. The report set for the Capacity Factor @ 302MW Pmax of 32.1%. There were no hot starts, 25 warm starts, and 2 cold starts during the month.

5. Market Data Report for July 2020

Zackary Liske mentioned the operating and financial settlement results for the month. LEC was committed to CAISO 27 out of 29 available days, including two separate commitment starts on July 4th and 5th. Most runs were 6-11 hours long in the afternoons and evenings in the month of July. There were 4 days not committed due to economics and forced outages.

6. Monthly Asset Report

Michael DeBortoli presented the monthly asset report for June 2020. Michael mentioned LEC's variable costs are down with the forced outage. The fixed costs are higher this month. The market was low while in the forced outage. Historically June is inline, not too high or too low.

7. Bidding Strategies Report

Ken Geoke presented the Bidding Strategies Report for July 2020. Ken reviewed bidding and calculating net start-up costs. Ken reviewed DA and RT net revenues over the month with the Committee.

Consent Calendar (Items 8-13)

The consent calendar was considered. Chairman Chiang 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: 8/10/2020

Motion: The PPC approves the Consent Calendar items consisting of agenda items no.:

8. Treasurer's Report for June 2020; 9. Financial Report for June 2020; 10.

GHG Reports (excerpted from the Monthly ARB); **11.** NorCal Power Services, LLC MTGSA for electrical maintenance services, not to exceed \$500,000, for use at all NCPA facilities and Members/SCPPA; **12.** Evoqua Water Technologies, LLC First Amendment to MTGSA, extending the contract expiration date to November 1, 2020, with no change to the not to exceed amount, for continued use at all NCPA facilities and Members/SCPPA; **13.** First Global Gear Services, LLC dba FGGS, LLC MTGSA for turbo machinery maintenance services, not to exceed \$500,000, for use at all NCPA facilities and Members/SCPPA.

Moved by: SVP Seconded by: CDWR

Discussion: There was no further discussion.

Vote Summary on Motion					
Participant	Vote	Particulars / GES			
Azusa	Yes	2.7857%			
BART	Absent	6.6000%			
Biggs	Yes	0.2679%			
CDWR	Yes	33.5000%			
Gridley	Yes	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	Yes	25.7500%			
Ukiah	Absent	1.7857%			
Vote Summary					
Total Ayes	8	87.1501%			
Total Noes	0	0.0000%			
Total Abstain	0	0.0000%			
Total Absent	5	12.8499%			
Result:	Motion Passes				

BUSINESS ACTION ITEMS

14. LEC Turbine Restoration Project

Michael DeBortoli reviewed the proposal for the LEC Turbine Restoration Project with the Committee and recommends authorizing additional funds for the financial reconciliation on the insurance claim and the shortage toward the deposit. The last \$6.5M from the insurance is in process. Funds from the Maintenance Reserve can cover any variance, once the Fiscal Year 2020 true up is complete.

INFORMATIONAL ITEMS

15. Additional Operational Updates

Michael DeBortoli mentioned that NCPA is studying future renewable resources for the gas facilities. Black & Veatch presented a PowerPoint presentation regarding the hydrogen market. Manny Robledo, from Azusa, addressed his concerns on the impact of including hydrogen to LEC. Manny suggested keeping this renewable resource separate from Lodi Energy Center.

Adjournment

The next regular meeting of the PPC is scheduled for Monday, September 14, 2020 at 10:00am.

The meeting was adjourned at 11:29 am.

Submitted by: Melissa Conrad

Lodi Energy Center Project Participant Committee

Operational Report

Date: 09/14/2020

To: Lodi Energy Center Project Participant Committee

<u>Safety</u>

• OSHA Recordable: 0 Accidents.

Notice of Violations

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

Outage Summaries:

• 8/13 @ 04:52 - 11:33: Vibration trip on startup, OMS 8992577

• 8/17 @ 02:15 - 03:58: Vibration probe issue, OMS 9008785

• 8/21 @ 12:08 - 13:58: Steam pressure regulating valve trouble, OMS 9034757

Agenda Item No.: 5

Planned Outage Summaries:

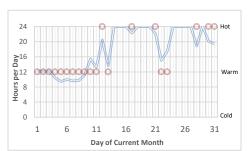
- April 1-30, 2021 Planned Outage
- 2022/2023 ST and Gen Major Inspection (6 weeks outage)

Generating Unit Statistics:

Date:

8/1/2020

1. Monthly Production	145,060	MWH
2. Productivity Factor		
a. Service Hours	559	Hours
b. Service Factor	75.2%	%
c. Capacity Factor @ 302MW Pmax	64.6	%



3. Equivalent Operating Availability (EOA)

98.6 %

4. Forced Outage Rate (FOR)

1.8 %

5. Heat Rate Deviation

a. Fuel Cost (Not Current Market Price)

4.00	\$/mmBTU
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MW Range		PMOA HR	Average HR	Deviation	Production	Cost
		BTU/kW- Hr	BTU/kW-Hr	%	MWH	\$
Seg. 1	296 +	6850	0	0.00%	0	\$0
Seg. 2	284 - 296	6870	6,940	1.02%	49,110	\$13,818
Seg. 3	275 - 284	6971	6,976	0.07%	50,119	\$963
Seg. 4	250 - 275	7081	7,006	-1.06%	20,842	-\$6,283
Seg. 5	225 - 250	7130	7,109	-0.29%	11,641	-\$958
Seg. 6	200 - 225	7200	7,200	0.00%	2,614	\$2
Seg. 7	175 - 225	7450	7,549	1.32%	3,861	\$1,523
Seg. 8	165 - 175	7760	7,873	1.46%	2,680	\$1,217
		7,164	7,236	0.25%	140,868	\$10,281

6. AGC Control Deviation

MW Range			High Dev	Low Dev	Total Dev	Cost
			MWH	MWH	MWH	\$
Seg. 1	296 +		0	0	0	\$0
Seg. 2	284 - 296		0	-1	1	\$22
Seg. 3	275 - 284		0	-1	1	\$27
Seg. 4	250 - 275		1	-2	2	\$65
Seg. 5	225 - 250		1	-2	2	\$66
Seg. 6	200 - 225		2	-8	10	\$274
Seg. 7	175 - 225		4	-14	18	\$559
Seg. 8	165 - 175	_	0	-1	1	\$21
			7	-28	35	\$1.034

7. Starting Reliability

Start Type	Hot Starts	Warm Starts	Cold Starts
Number of Starts	6	14	0
Start Time Benchmark (Minutes)	75	110	200
Start Time Actual (Average Minute)	91	122	0
Start Time Deviation (%)	21%	11%	0%
Start Fuel Benchmark PMOA (mmBTU)	1,300	1,800	3,500
Start Fuel Actual (Average mmBTU)	1,089	1,086	0
Fuel Deviation (%)	-16%	-40%	0%
Costs of Fuel Deviations (\$)	-\$5,065	-\$39,970	\$0



LEC PPC Meeting
September 14, 2020
August 2020 Market Financial
Results

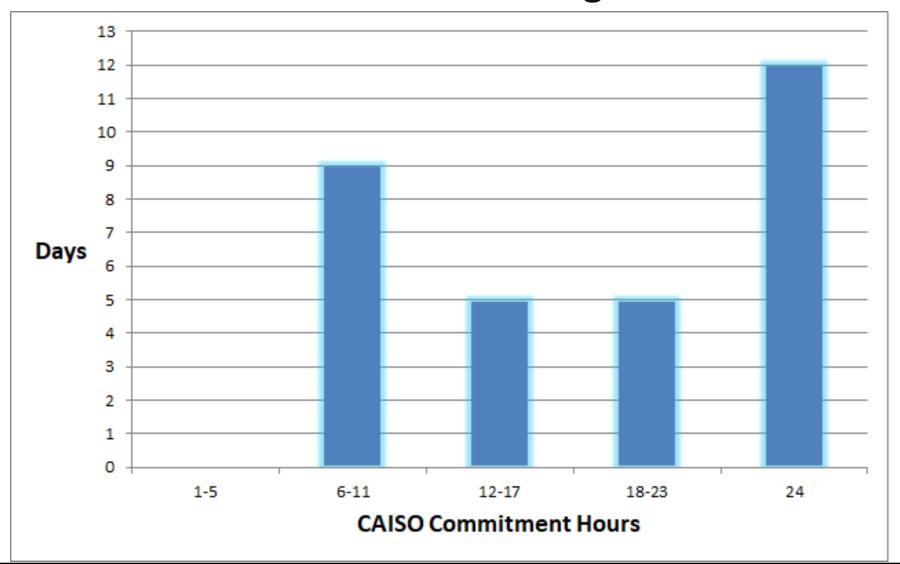


LEC Operational Results for August 2020

- Resource Adequacy Availability Metrics:
 - 100% Monthly Assessment Generic Performance
 - 97.8% Monthly Assessment Flexible Performance Vs
 - 96.5% Availability Standard
- RAAIM Incentive Payment Amount:
 - \$18,200 for Generic RA based on claimed 106.77 mw
 - \$0 for Flexible RA based on claimed 62.32 mw
- LEC was committed by CAISO for Market energy 31 of 31 available days

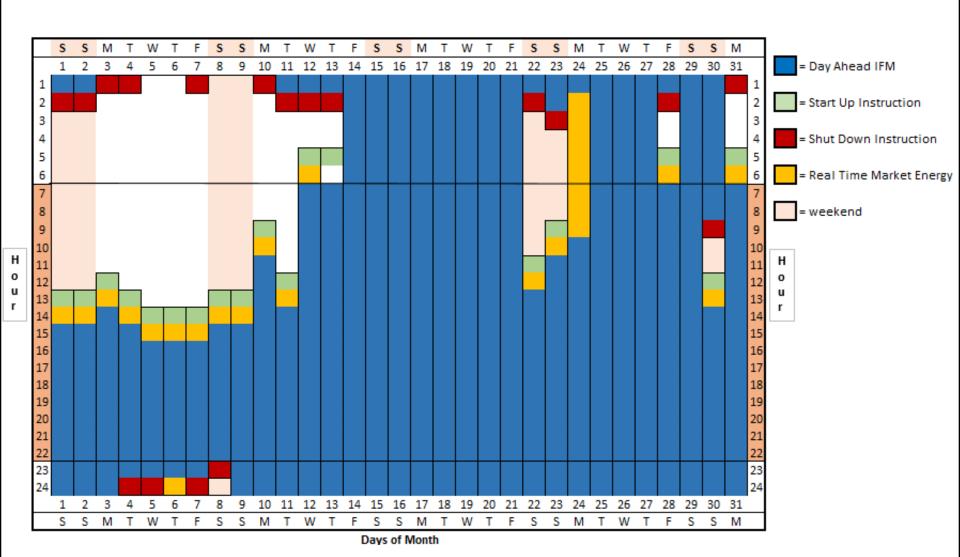


Frequency Tabulation of Daily CAISO commitment hours for August 2020



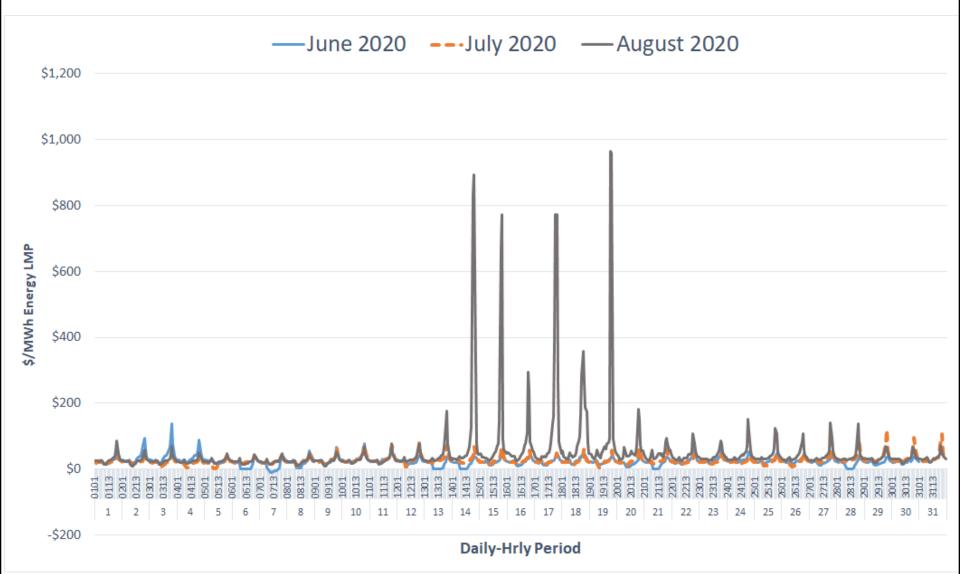


Daily CAISO Commitment Runs for August 2020



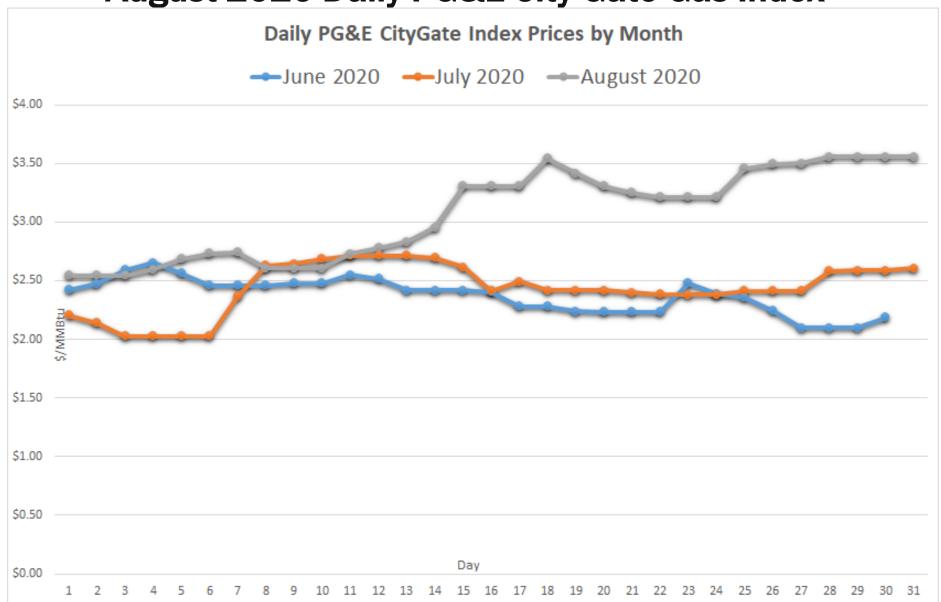


DA Energy LMP values by Month



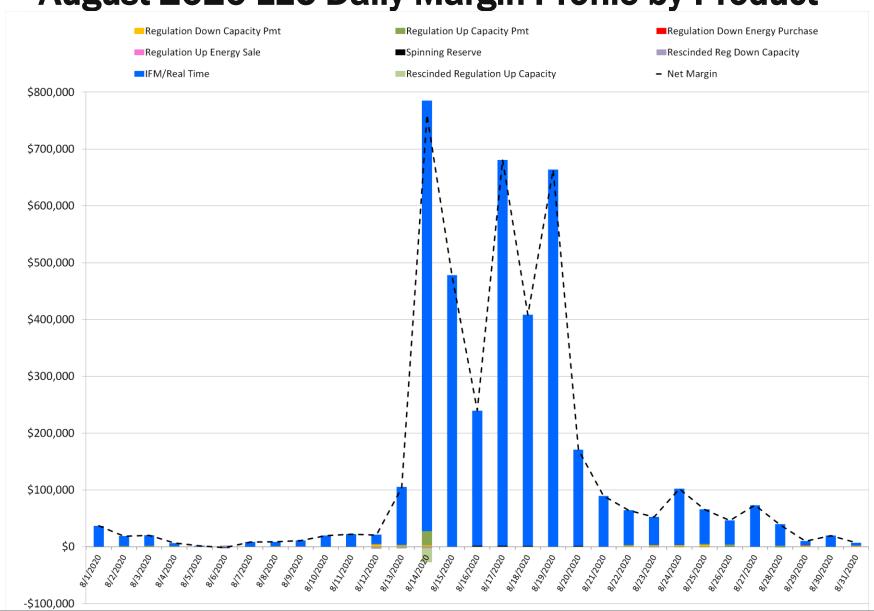


August 2020 Daily PG&E City Gate Gas Index





August 2020 LEC Daily Margin Profile by Product





August 2020 LEC Project Cumulative Monthly Margin

IFM/RTM Gross Revenues	\$	9,277,500		
Regulation Up Capacity	\$	44,800		
Regulation Down Capacity	\$	24,500		
Spinning Reserve	\$	-		
Total Gross LEC Revenue			\$	9,346,800
LEC CAISO GMC Costs	\$	(59,900)		
CAISO Energy & Capacity Buyback Costs	\$	(309,100)		
Total Monthly LEC Fuel Cost	\$	(3,285,900)		
Total Monthly GHG Obligation	\$	(941,100)		
Variable Operations & Maintenance Cost	\$	(462,800)		
Total Costs			\$	(5,058,800)
Net Cumulative Monthly Margin				4,288,000
Average	\$	29.6		
1113.59	-			

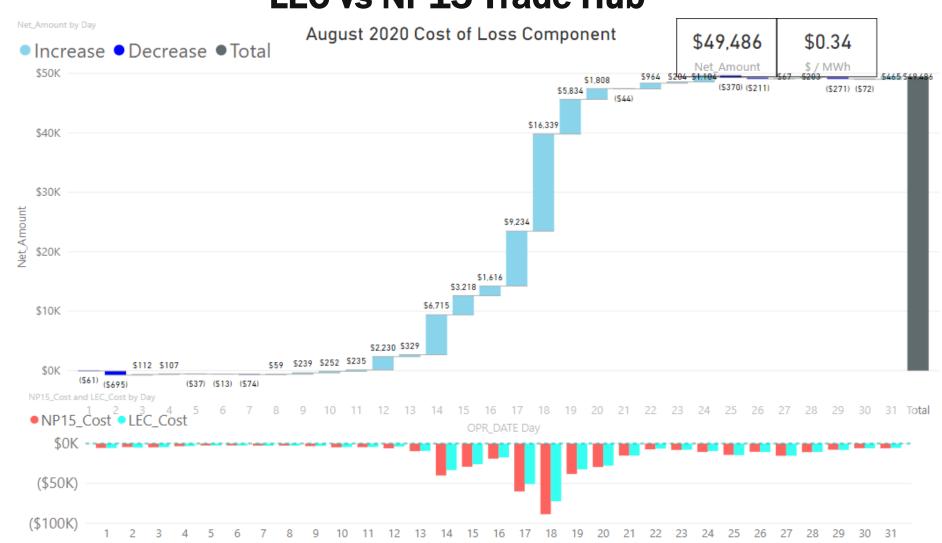


Comparison of Day Ahead Congestion LEC vs NP15 Trade Hub





Comparison of Day Ahead Loss Component LEC vs NP15 Trade Hub





Charting the Changes

Budget vs New FY Forecast

	Budget	Forecast	Difference
Power Produced (MW)	1,316,988	1,518,555	201,567
Average Price (\$/MW)	49.94	41.14	-8.80
Fuel Price (\$/MMbtu)	3.65	3.81	0.16
Revenue (\$)	65,765,612	67,814,619	2,049,007
Variable Costs (\$)	50,918,015	55,980,078	5,062,064
			-3,013,057

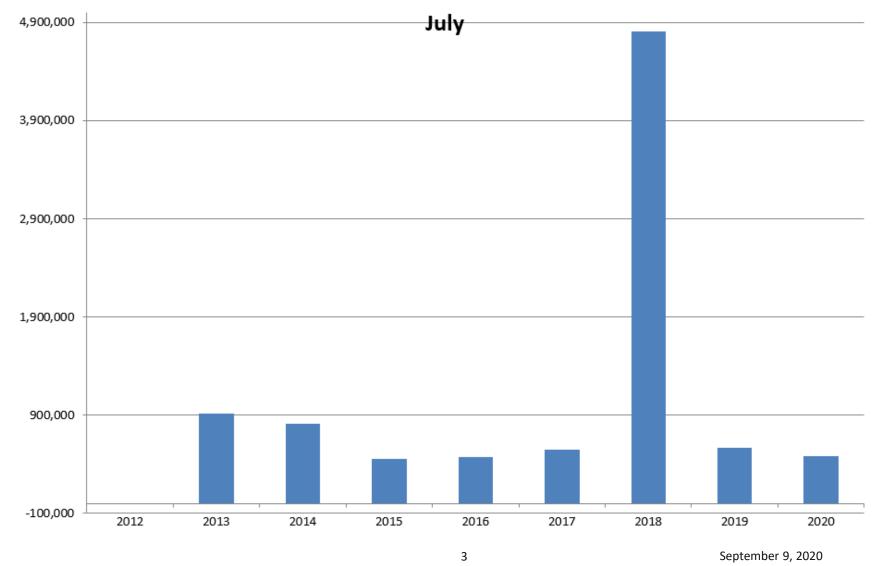


July Asset Report

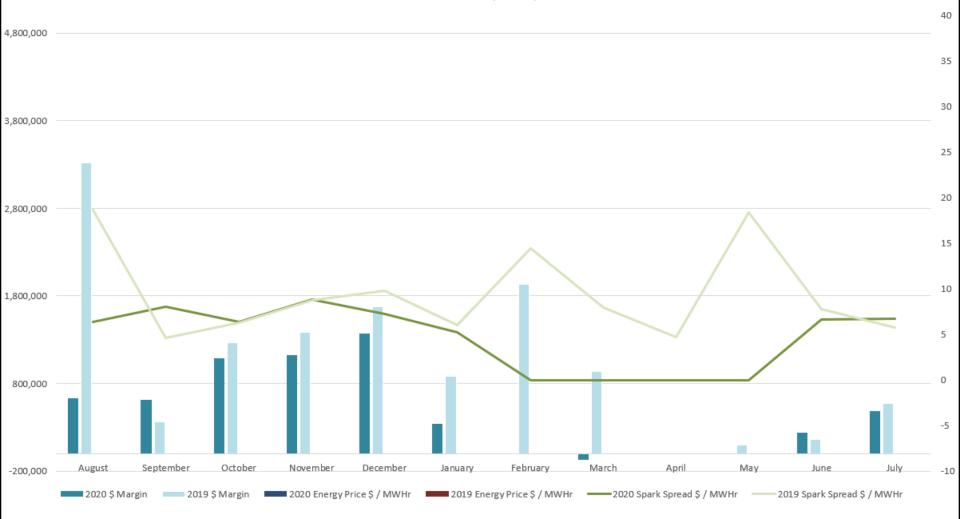
		Most Recent		Above / (below)	Percent Difference	
	Actual	Forecast	Budget	Forecast	Above / (below)	
Revenue	2,786,992	4,273,011	9,170,081	(1,486,019)	-35%	
VOM	2,100,250	3,359,776	5,598,393	(1,259,526)	-37%	
Fixed	1,026,632	1,021,356	946,495	5,276	1%	
Projects	352,616	153,194	153,194	199,422	130%	GSU Project Closeout
A&G	183,752	222,637	222,637	(38,885)	-17%	
Debt	2,168,653	2,168,653	2,168,653	0	0.00%	
Net Cost	(3,044,911)	(2,652,605)	80,710	(392,306)	15%	
Net Annual Cost		(31,153,240)	(27,923,503)	(\$3,229,737)		More MW, lower Rate
				Above budget by 11.57%		Variable Up/ Rev Dwn



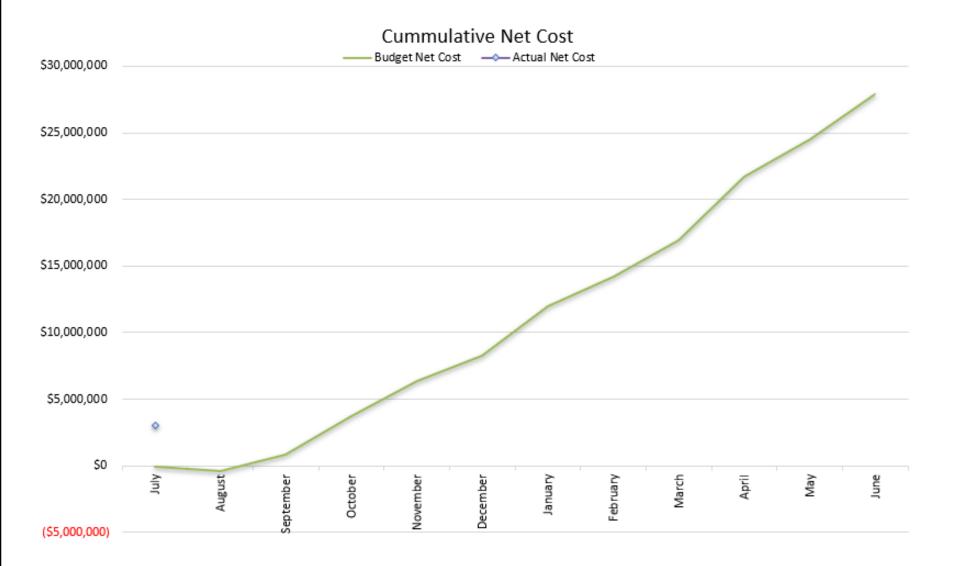
Historical Margins







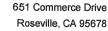




Lodi Energy Center Monthly Budget Analysis Expenditures

Report Date: 08/26/2020

	July	August	September	October	November	December	January	February	March	April	May	June	Year	FY2020 Budget	Percent Used Comments
VOM	2,100,250	5,822,985	6,310,445	6,793,940	6,231,195	5,868,319	7,356,287	5,861,979	2,219,761	10,000	1,847,685	4,122,082	54,544,928	50,918,015	107.1%
Capacity Factor	32%	84%	86%	73%	81%	70%	74%	74%	23%	0%	20%	55%	56%	54%	104.7%
Fuel Consumed (mmBTU, estimated)	553,447	1,286,060	1,283,279	1,130,250	1,208,100	1,084,567	1,132,463	1,061,202	356,406	0	307,442	819,500	10,222,715	9,021,368	113.3%
Avg Fuel Cost (\$/mmBTU)	2.51	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.14	3.65	3.7%
Power Produced (MWHr, estimated)	75,067	187,746	187,340	165,000	176,365	158,331	165,323	154,920	52,030	0	44,882	119,635	1,486,639	1,316,988	112.9%
Avg Power Price (\$/MWHr)	37.12	0.00	0.00	0.00	0.00	0.00	0.00					0.00	1.87	49.94	3.8%
Operations / Variable / LTSA	32,219	176,796	176,100	1,346,266	166,012	154,289	1,230,164	147,682	10,000	10,000	10,000	10,000	3,469,527	5,436,362	63.8%
Fuel (estimated)	1,387,262	3,951,106	4,442,927	3,957,955	4,472,854	4,284,523	4,514,455	4,204,043	1,702,541	0	1,400,149	3,121,434	37,439,249	32,955,703	113.6%
AB32 GHG Offset (estimated)	508,424	1,149,006	1,146,521	1,009,800	1,079,354	968,986	1,130,809	1,059,653	355,885	0	306,993	818,303	9,533,734	8,695,359	109.6%
CA ISO Charges (estimated)	172,345	546,078	544,897	479,919	512,975	460,522	480,858	450,600	151,334	0	130,544	172,345	4,102,418	3,830,591	107.1%
Routine O&M (Fixed)	1,026,632	923,343	905,408	893,343	1,048,356	898,343	898,343	891,343	916,957	979,970	1,061,957	1,116,957	11,560,956	11,555,680	100.0%
Maintenance / Fixed	311,545	205,000	222,065	205,000	300,000	205,000	205,000	205,000	205,000	205,000	350,000	205,000	2,823,610	2,717,065	103.9%
Administration	2,729	17,615	17,615	17,615	17,615	17,615	17,615	17,615	17,615	17,615	17,615	17,615	196,491	211,377	93.0%
Mandatory Costs	36,623	40,000	5,000	10,000	7,000	15,000	15,000	8,000	33,614	33,614	33,614	33,614	271,078	309,455	87.6%
Inventory Stock	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0.0%
Labor	482,419	450,000	450,000	450,000	513,013	450,000	450,000	450,000	450,000	513,013	450,000	650,000	5,758,445	5,789,039	99.5%
Insurance	66,328	74,862	74,862	74,862	74,862	74,862	74,862	74,862	74,862	74,862	74,862	74,862	889,805	898,338	99.1%
Power Management & Settlements	126,988	126,988	126,988	126,988	126,988	126,988	126,988	126,988	126,988	126,988	126,988	126,988	1,523,860	1,523,860	100.0%
Other Costs	0	8,879	8,879	8,879	8,879	8,879	8,879	8,879	8,879	8,879	8,879	8,879	97,667	106,546	91.7%
Projects	352,616	153,194	218,194	153,194	253,194	159,694	278,194	278,194	278,194	403,194	424,150	153,194	3,105,210	2,905,788	106.9%
Maintenance Reserve	153,194	153,194	153,194	153,194	153,194	153,194	153,194	153,194	153,194	153,194	153,194	153,194	1,838,332	1,838,332	100.0%
Operations & Maintenance Projects	-287,312	0	65,000	0	100,000	0	125,000	125,000	125,000	250,000	270,956	0	773,644	1,060,956	72.9% Forced Outage Closeout
Capital Projects	486,734	0	0	0	0	6,500	0	0	0	0	0	0	493,234	6,500	7588.2% Transformer Closeout
A&G	183,752	222,637	222,637	222,637	222,637	222,637	222,637	222,637	222,637	222,637	222,637	222,637	2,632,757	2,671,642	98.5%
Administrative & General (Allocated)	160,659	193,161	193,161	193,161	193,161	193,161	193,161	193,161	193,161	193,161	193,161	193,161	2,285,428	2,317,930	98.6%
Generation Services Shared	23,093	29,476	29,476	29,476	29,476	29,476	29,476	29,476	29,476	29,476	29,476	29,476	347,329	353,712	98.2%
Total O&M Cost	3,663,250	7,122,160	7,656,684	8,063,114	7,755,382	7,148,994	8,755,461	7,254,153	3,637,549	1,615,801	3,556,430	5,614,871	71,843,850	68,051,125	105.6%
Debt Service	2,168,653	2,168,653	2,168,653	2,168,653	2,168,653	2,168,653	2,168,653	2,168,653	2,168,653	2,168,653	2,168,653	2,168,653	26,023,835	26,023,835	100.0%
Revenues	2,786,992	8,363,437	9,000,433	6,845,840	7,342,274	7,459,835	7,931,330	6,978,387	2,505,546	32,154	2,190,646	5,277,571	66,714,445	66,151,457	100.9%
ISO Energy Sales (estimated)	2,786,450	8,331,284	8,968,280	6,813,686	7,310,120	7,427,681	7,899,177	6,946,233	2,473,392	0	2,158,492	5,245,418	66,360,212	65,765,612	100.9%
Other Income	542	32,154	32,154	32,154	32,154	32,154	32,154	32,154	32,154	32,154	32,154	32,154	354,233	385,845	
															Delta to budget due to market margin.
Net	(\$3,044,911)	(\$927,375)	(\$824,904)	(\$3,385,927)	(\$2,581,762)	(\$1,857,811)	(\$2,992,784)	(\$2,444,420)	(\$3,300,656)	(\$3,752,301)	(\$3,534,437)	(\$2,505,952)	(\$31,153,240)	(\$27,923,503)	Above budget by 11.57%





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AGENDA ITEM NO.: 8

LEC Treasurer's Report

Date:

September 14, 2020

To:

LEC Project Participant Committee

Subject:

Treasurer's Report for the Month Ended July 31, 2020

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 \$43,051.

<u>Investments</u> - The carrying value of the LEC's investment portfolio totaled \$29,331,322 at month end. The current market value of the portfolio totaled \$29,513,519.

The overall portfolio had a combined weighted average interest rate of 0.840% with a bond equivalent yield (yield to maturity) of 0.679%. Investments with a maturity greater than one year totaled \$9,685,000. During the month \$11,028,606 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 decreased 5 basis points (from 0.15% to 0.10%) and rates on one year T-Bills decreased 4 basis points (from 0.17% to 0.13%).

To the best of my knowledge and belief, all securities held by LEC as of July 31, 2020 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

Attachments

Prepared by:

SONDRA AINSWORTH Treasurer-Controller

LODI ENERGY CENTER

TREASURER'S REPORT

JULY 31, 2020

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INTEREST RATE/YIELD ANALYSIS	4
INVESTMENT MATURITIES ANALYSIS	5
DETAIL REPORT OF INVESTMENTS	APPENDIX

Northern California Power Agency/Lodi Energy Center Treasurer's Report Cash & Investment Balance July 31, 2020

	CASH	IN	VESTMENTS	TOTAL	PERCENT	INVESTMENTS at MARKET
MANDATORY FUNDS Debt Service Account Debt Service Reserve	\$ 577	\$	5,034,305 12,628,114	\$ 5,034,882 12,628,114	17.14% \$ 42.99%	5,034,348 12,753,988
O & M Reserve	- 577		11,578,911 29,241,330	11,578,911 29,241,907	39.42% 99.55%	11,635,191 29,423,527
ADDITIONAL PROJECT FUNDS GHG Cash Account Transmission Upgrade Escrow ¹	- 42,474		89,992 -	89,992 42,474	0.31% 0.14%	89,992 -
Participant Deposit Account	\$ 43,051	\$	29,331,322	\$ - 29,374,373	0.00% 100.00% \$	- 29,513,519

NOTE A -Investment amounts shown at book carrying value.

¹ Amount held in escrow

Northern California Power Agency/Lodi Energy Center Treasurer's Report Cash Activity Summary July 31, 2020

			REC	CEIPTS				H	CXI	PENDITURES	\$	CA	ASH
	-		INT	EREST	INV	VESTMENTS			IN	VESTMENTS	INTER-COMPANY/	INCR	EASE /
	OPS/	CONSTR	(NC	TE B)		(NOTE A)	OI	PS/CONSTR		(NOTE B)	FUND TRANSFERS	(DECI	REASE)
MANDATORY FUNDS Debt Service Account	¢		¢	_	\$		\$	_	\$	(2,686,993)	\$ 2,686,756	\$	(237)
Debt Service Reserve	Ψ	-	Ψ	3,164	•	5,331,488	•	-	*	(5,334,652)	-	•	-
O & M Reserve		-		5,553		3,001,058		•		(3,006,611)	-		
		10		8,717		8,332,546				(11,028,256)	2,686,756		(237)
ADDITIONAL PROJECT FUNDS GHG Cash Account				350						(350)			
0220		-						_		(000)	_		
Transmission Upgrade Escrow		-		-		-		_		_			-
Participant Deposit Account		-		-		•		•		-	•		-
TOTAL	\$	-	\$	9,067	\$	8,332,546	\$		\$	(11,028,606)	\$ 2,686,756	\$	(237)

NOTE A -Investment amounts shown at book carrying value.

NOTE B -Net of accrued interest purchased on investments.

¹ Amount held in escrow

Northern California Power Agency/Lodi Energy Center Treasurer's Report Investment Activity Summary July 31, 2020

				(NO	N-CASH)	(1	NON-CASH)		INVEST	1EN	TS
	P	URCHASED	SOLD OR MATURED		C/(PREM) MORT		AIN/(LOSS) ON SALE	TF	RANSFERS		INCREASE / DECREASE)
MANDATORY FUNDS Debt Service Account	\$	2,686,993	-	\$	278	\$	-	\$	-	\$	2,687,271
Debt Service Reserve O & M Reserve		5,334,652 3,006,611	(5,331,488) (3,001,058)		526 (2,568)		-		-		3,690 2,985
O & III ROSOLVE		11,028,256	(8,332,546)		(1,764)		-				2,693,946
ADDITIONAL PROJECT F	UND	S									
GHG Cash Account		350	-		-		bos		•		350
Participant Deposit Acct.		-	-		-		-		-		-
TOTAL	\$	11,028,606	\$ (8,332,546)	\$	(1,764)	\$		\$		\$	2,694,296

Less Non- Cash Activity
Disc/(Prem) Amortization & Gain/(Loss) on Sale
Net Change in Investment --Before Non-Cash Activity

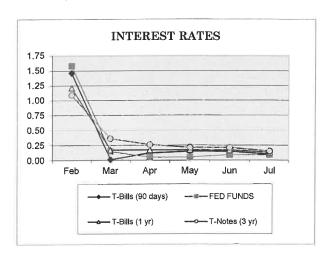
1,764 \$ 2,696,060

NOTE A -Investment amounts shown at book carrying value.

Northern California Power Agency Lodi Energy Center Interest Rate/Yield Analysis July 31, 2020

	WEIGHTED	
	AVERAGE	BOND
	INTEREST	EQUIVALENT
	RATE	YIELD
OVERALL COMBINED	0.840%	0.679%
Debt Service Account	0.098%	0.099%
Debt Service Reserve	0.994%	0.883%
O & M Reserve	0.990%	0.702%
GHG Cash Account	1.354%	1.354%

	CURRENT	PRIOR YEAR
Fed Funds (Overnight)	0.09%	2.41%
T-Bills (90da.)	0.10%	2.09%
Agency Disc (90da.)	0.16%	1.98%
T-Bills (1yr.)	0.13%	1.98%
Agency Disc (1yr.)	0.18%	1.75%
T-Notes (3yr.)	0.15%	1.80%



Northern California Power Agency Total Portfolio Investment Maturities Analysis July 31, 2020

Туре	_	0-7 Days		8-90 Days	91-180 Days	1	81-270 Days	271-365 Days	1-5 Years	6-10 ears		Total	Percent
US Government Agencies	\$		\$	_	\$5,454	\$	4,929	\$ m (6	\$ 7,630	\$ -	\$	18,013	61.58%
Corporate Bonds (MTN)	•	_	•	-	-		-	-	1,555	-		1,555	5.32%
Municipal Bonds		-		-	-		_	_	500	-		500	1.71%
US Bank Trust Money Market		3,131		-			-	-	_			3,131	10.70%
-		-		-			_		-	-		· -	0.01%
Commercial Paper		1,633			_		_	_	-	-		1,633	5.58%
Investment Trusts (LAIF)		•			_		_	_				-	0.01%
Investment Trusts (CAMP)		4 400			-		_	_	_	_		4,420	15.11%
U.S.Treasury Market Acct. *		4,420		-	•		•	-	-			•	0.00%
U.S.Treasury Bill/Note		-		-	•		-	-	•	-		-	0.00%
Certificates of Deposit	_	-		-			-	 -	 40.005	-	^	-	
Total Dollars	\$	9,184		\$0	\$5,454	_	\$4,929	\$0	\$9,685	\$0	\$	29,252	100.00%
Total Percents		31.39%		0.00%	18.64%		16.85%	0.00%	33.11%	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.

NCPA

LEC Issue#1 2010A DS Fund

Northern California Power Agency

Treasurer's Report

07/31/2020

Issuer	Trustee / Custodian	Stated Value	Interest e Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value CUSIP	Investment #	Carrying Value
US Bank Trust	USB	-	132 0.600	07/01/2013	132		-	0,600	132 SVS79003	79003	133
Federal Home Loan Ba	USBT	485,000		06/26/2020	484,744	11/19/2020	110	0.131	484,869 313384028	27020	484,807
	Fund Total and Average	\$ 485.132	0.130		\$ 484.876		110	0.132	\$ 485.001		84 939
LEC Issue #1 2010B DS Fund	DS Fund										
US Bank Trust	USB	03	936 0.600	07/01/2013	936		-	0.600	936 SYS79004	79004	936
Federal Home Loan Ba	USBT	000'099	00 0.130	06/26/2020	659,652	11/19/2020	110	0.131	659,822 313384Q28	27021	659,738
Federal Home Loan Ba	USBT	1,076,000	00 0.070	07/29/2020	1,075,738	12/01/2020	122	0.070	1,075,645 313384R68A	27036	1,075,745
	Fund Total and Average	\$ 1,736,936	36 0.093		\$ 1,736,326		117	0.094	\$ 1,736,403		\$ 1,736,419
LEC Issue #2 2010B DS Fund	DS Fund										
US Bank Trust	USB	~	803 0.600	07/01/2013	803		-	0.600	803 SYS79012	79012	803
Federal Home Loan Ba	USBT	1,134,000	00 0.130	06/26/2020	1,133,402	11/19/2020	110	0.131	1,133,694 313384028	27022	1,133,550
Federal Home Loan Ba	USBT	944,000	000 0.069	07/29/2020	943,771	12/01/2020	122	0.070	943,688 313384R68A	27037	943,776
	Fund Total and Average	\$ 2,078,803	03 0.103		\$ 2,077,976		115	0.104	\$ 2,078,185		\$ 2,078,129
LEC Issue#1 2017A DS Fund	DS Fund										
U.S. Treasury	USBT	99'(68,000 0.115	06/26/2020	896'29	11/19/2020	110	0.117	67,979 9127963A5	27023	67,976
Federal Home Loan Ba	USBT	667,000	000 000	07/29/2020	966,838	12/01/2020	122	0.070	666,780 313384R68A	27038	666,842
	Fund Total and Average	\$ 735,000	00 0.074		\$ 734,806		121	0.075	\$ 734,759		\$ 734,818
	GRAND TOTALS:	\$ 5,035,871	871 0.098		\$ 5,033,984		116	0.099	\$ 5,034,348.		\$ 5,034,305

*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 07/31/2020



LEC Issue #1 2010 DSR Fund

Northern California Power Agency Treasurer's Report

07/31/2020

İssuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value CUSIP	Investment #	Carrying Value
Prop T Jacob	asia	4 054	000	02/04/2042	7507		,	0	100000000000000000000000000000000000000		
OG Dally Tues	a no	ton'i	0.000	0110110110	4cn,1		-	0.000	1,054 SYS/9005	/800p	1,054
Federal Home Loan Ba	USBT	420,000	1.500	01/28/2020	413,823	01/15/2021	167	1.537	419,807 313385AQ9A	4 26943	417,078
Federal Home Loan Ba	USBT	4,429,000	0.110	07/29/2020	4,426,510	01/29/2021	181	0,111	4,426,786 313385BE5	27040	4,426,551
Federal Home Loan Mt	nsa	150,000	1.125	07/28/2017	146,648	08/12/2021	376	1.699	151,508 3137EAEC9	26454	149,145
Federal Home Loan Ba	USB	4,100,000	2.125	08/28/2017	4,168,306	06/10/2022	678	1.760	4,245,140 313379Q69	26463	4,126,537
	Fund Total and Average	\$ 9,100,054	1.102		\$ 9,156,341		408	0.949	\$ 9,244,295		\$ 9,120,365
LEC Iss#1 2010B BABS Subs Resv	ABS Subs Resv										
US Bank Trust	USB	2,368,443	0.600	07/01/2013	2,368,443		-	0.600	2,368,443 SYS79006	79006	2,368,443
	Fund Total and Average	\$ 2,368,443	0.600		\$ 2,368,443		-	0.600	\$ 2,368,443		\$ 2,368,443
LEC Issue #2 2010B DSR BABS	3 DSR BABS										
US Bank Trust	USB	759,145	0.600	07/01/2013	759,145		-	0.600	759,145 SYS79013	79013	759,145
Federal Home Loan Mt	USBT	380,000	1.650	01/31/2020	380,190	07/28/2023	1,091	1.635	382,105 3134GU6D7	26945	380,163
	Fund Total and Average	\$ 1,139,145	0.950		\$ 1,139,335		365	0.945	\$ 1,141,250		\$ 1,139,308
	GRAND TOTALS:	\$ 12,607,642	0.994		\$ 12,664,119		328	0.883	\$ 12,753,988.		\$ 12,628,116

*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 07/31/2020

Callable on 1/28/2021 only FHLMC Investment #26945

NCPA vor at 1970 1970 1970

LEC O & M Reserve

Northern California Power Agency Treasurer's Report

07/31/2020

101.00	Tructon Puetrollan	States Value	Interest	Purchase	Purchased	Maturity	Days to	Bond* Equiv				
lance	Hastee Forstonian	orated value	naid.	Oake	Price	Cate	Maturity	rieid	Market Value	COSIL	Investment #	Carrying Value
Local Agency Investm		1,543,266	1.354	07/01/2013	1,543,266		4	1.354	1,543,266	SYS70047	70047	1,543,266
Union Bank of Califo	UBOC	4,420,188	0.002	07/18/2013	4,420,188		~	0.002	4,420,188	SYS70041	70041	4,420,188
Federal Farm Credit	UBOC	200,000	1.500	10/15/2019	499,335	04/15/2021	257	1,590	504,750	3133EKY83	26892	499,687
Toyota Motor Credit	UBOC	495,000	1.800	02/03/2020	496,995	10/07/2021	432	1.555	503,494	89236TGJ8	26953	496,407
Memphis Center City	UBOC	200,000	5.530	04/27/2020	533,880	11/01/2021	457	1.000	528,830	58607ECD4	26986	528,026
US Bank, N.A.	UBOC	595,000	2.650	05/31/2019	598,290	05/23/2022	099	2.456	618,895	90331HPC1	26822	597,001
Federal Home Loan Mt	UBOC	1,000,000	0.375	07/30/2020	1,000,000	07/28/2023	1,091	0.375	092'666	3134GWDL7	27046	1,000,000
Caterpillar Financia	UBOC	465,000	3.250	02/03/2020	496,569	12/01/2024	1,583	1.776	515,778	14912L6G1	26952	493,336
Federal Farm Credit	UBOC	1,000,000	0.640	07/30/2020	1,000,000	01/27/2025	1,640	0.639	1,000,010	3133ELZ64	27048	1,000,000
Federal National Mtg	UBOC	1,000,000	0.600	07/30/2020	1,001,000	07/29/2025	1,823	0,579	1,000,220	3136G4D75	27047	1,000,999
	Fund Total and Average	\$ 11,518,454	0.990		\$ 11,589,523		546	0.702	\$ 11,635,191			\$ 11,578,910

*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.

\$ 11,578,910

\$ 11,635,191 \$ 11,635,191.

0.702

546 546

\$ 11,589,523

0.990

\$ 11,518,454 \$ 11,518,454

Fund Total and Average GRAND TOTALS:

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 07/31/2020

Callable on and anytime after 4/22/2022 Callable on 7/25/2021 on Callable on Arabitotic of Callable quarterly stating 7/29/2022 Callable on and anytime after 10/27/2020 Callable on and anytime after 2/4/2021	
USB FHLMC FFCB FFCB	
Investment #26822 Investment #27046 Investment #27047 Investment #27048 Investment #27054	



LEC GHG Auction Acct

Northern California Power Agency

Treasurer's Report

07/31/2020

Ĩ	ĺ	1	
Carrying Value	89,992	\$ 89,992	\$ 89,992
Investment #	70046		
Market Value CUSIP	89,992 SYS70046	89,992	89,992.
Mark		49	•
Bond* Equiv Yield	1.354	1.354	1.354
Days to Maturity	-	+	4
Maturity Date			
Purchased Price	89,992	\$ 89,992	\$ 89,992
Purchase Date	07/01/2013		
Interest Rate	1.354	1.354	1.354
Stated Value	89,992	89,992	89,992
ž		v	01
Trustee / Custodian		Fund Total and Average	GRAND TOTALS:
Issuer	Local Agency Investm		

*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 07/31/2020



Lodi Energy Center Project Participant Committee LEC Financial Reports

Date: September 14, 2020

To: Lodi Energy Center Project Participant Committee

AGENDA ITEM NO.: 9

Subject: July 31, 2020 Financial Reports (Unaudited)

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

		uly
	2020	2019
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 89,992	\$ 74,643
Accounts receivable		
Others	6,548,955	-
Interest receivable	77	162
Inventory and supplies - at average cost	2,212,654	2,202,632
Prepaid insurance Due from (to) Agency, net	286,716	220,989
	6,225,385	21,994,797
TOTAL CURRENT ASSETS	15,363,779	24,493,223
RESTRICTED ASSETS		
Cash and cash equivalents	9,143,471	796,053
Investments	20,147,360	26,231,651
Interest receivable	31,246	77,196
TOTAL RESTRICTED ASSETS	29,322,077	27,104,900
ELECTRIC DI ANT		
ELECTRIC PLANT Electric plant in acquire	400 040 004	422 952 027
Electric plant in service Less: accumulated depreciation	409,849,884 (96,055,491)	423,853,037 (97,388,653)
Less: accumulated depreciation	313,794,393	326,464,384
	313,794,393	•
Construction work-in-progress	-	182,398
TOTAL ELECTRIC PLANT	313,794,393	326,646,782
OTHER ASSETS		
Regulatory assets	29,016,044	24,785,331
TOTAL OTHER ASSETS	29,016,044	24,785,331
TOTAL ASSETS	387,496,293	403,030,236
DEFERRED OUTFLOWS OF RESOURCES		
DEFERRED OUTFLOWS OF RESOURCES Unamortized excess cost on advance		
Unamortized excess cost on advance	1,480,530	1,796,125
	1,480,530 183,165	
Unamortized excess cost on advance refunding of debt, net		1,796,125 178,173 1,974,298
Unamortized excess cost on advance refunding of debt, net Asset retirement obligations	183,165	178,173

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

	Jι	ıly
	2020	2019
LIABILITIES & NET POSITION		
CURRENT LIABILITIES		
Accounts and retentions payable	\$ 1,928,403	\$ 2,233,820
Operating reserves	15,328,611	13,389,295
Current portion of long-term debt	12,515,000	12,040,000
Accrued interest payable	2,242,329	2,332,520
TOTAL CURRENT LIABILITIES	32,014,343	29,995,635
NON-CURRENT LIABILITIES		
Operating reserves and other deposits	132,440	1,158,808
Asset retirement obligations	183,165	178,173
Long-term debt, net	306,535,000	319,050,000
TOTAL NON-CURRENT LIABILITIES	306,850,605	320,386,981
TOTAL LIABILITIES	338,864,948	350,382,616
DEFERRED INFLOWS OF RESOURCES		
Regulatory credits	40,399,855	38,542,450
NET POSITION		
Invested in capital assets, net of related debt	(9,331,606)	(13,294,604)
Restricted	14,451,633	14,669,230
Unrestricted	4,775,158	14,704,842
TOTAL NET POSITION	9,895,185	16,079,468
TOTAL LIABILITIES AND NET POSITION	\$ 389,159,988	\$ 405,004,534

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

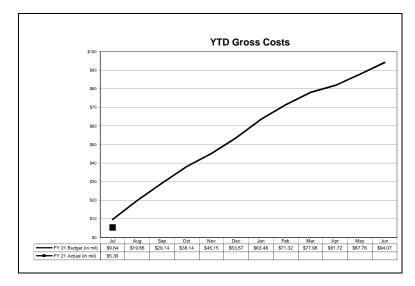
	Month Ended J	Iuly
	2020	2019
SALES FOR RESALE		
Participants	\$ 6,587,896 \$	10,235,230
Other	2,789,232	3,941,297
TOTAL SALES FOR RESALE	 9,377,128	14,176,527
OPERATING EXPENSES		
Operations	2,013,980	2,626,621
Depreciation	1,177,959	1,218,192
Purchased power	138,591	98,975
Maintenance	44,916	399,104
Administrative and general	393,327	382,521
Transmission	33,938	73,315
Intercompany (sales) purchases	23,093	27,899
TOTAL OPERATING EXPENSES	3,825,804	4,826,627
NET OPERATING REVENUES	5,551,324	9,349,900
OTHER REVENUES (EXPENSES)		
Interest expense	(1,150,047)	(1,190,820)
Interest income	(158,428)	132,767
Other	107,342	184,816
TOTAL OTHER REVENUES (EXPENSES)	(1,201,133)	(873,237)
FUTURE RECOVERABLE AMOUNTS	(114,943)	101,106
REFUNDS TO PARTICIPANTS	-	(10)
INCREASE IN NET POSITION	4,235,248	8,577,759
NET POSITION		
Beginning of year	5,659,937	7,501,709
End of period	\$ 9,895,185 \$	16,079,468

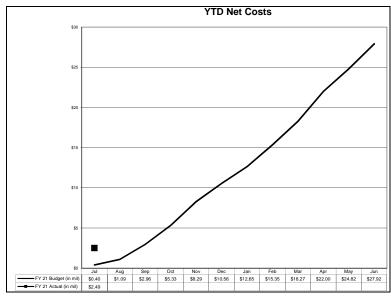
Lodi Energy Center FY 2021 Operating Costs As of July 31, 2020

				YTD %	
	Annual Budget	Actual	Remaining	Remaining	Notes
Routine O&M Costs					
Variable	\$ 5,436,362	\$ 32,219	\$ 5,404,143	99%	
Fixed	2,717,065	311,545	2,405,520	89%	Α
Administration	211,377	2,729	208,648	99%	_
Mandatory Costs	309,455	36,623	272,832	88%	В
Routine O&M Costs without Labor	8,674,259	383,116	8,291,143	96%	
Labor	5,789,039	475,268	5,313,771	92%	
Total Routine O&M Cost	14,463,298	858,384	13,604,914	94%	
Other Costs					
Fuel	32,955,703	1,373,297	31,582,406	96%	
GHG Allowance Costs	8,695,359	-,,	8,695,359	100%	
CA ISO Charges	780,841	33.938	746,903	96%	
CA ISO Purchased Energy	3,049,750	138,591	2,911,159	95%	
Debt Service	26,023,835	2,168,653	23,855,182	92%	
Insurance	898,338	66,328	832,010	93%	
Other Costs	106,546	-	106,546	100%	
Generation Services Shared	353,712	23,093	330,619	93%	
Administrative & General (Allocated)	2,317,930	160,659	2,157,271	93%	
Power Management Allocated Costs	1,523,860	126,988	1,396,872	92%	
Total O&M Cost	91,169,172	4,949,931	86,219,241	95%	
Projects					
Operations & Maintenance	1,060,956	(287,312)	1,348,268	127%	С
Capital	6,500	486,734	(480,234)	0%	
Maintenance Reserve	1,838,332	153,194	1,685,138	92%	
Total Projects	2,905,788	352,616	2,553,172	88%	
Annual Cost	94,074,960	5,302,547	88,772,413	94%	
Less: Third Party Revenue					
Interest Income	385.845	18.886	366.959	95%	
ISO Energy Sales	55,590,251	2,748,494	52,841,757	95%	
Ancillary Services Sales	1,711,986	40,738	1,671,248	98%	
GHG Allowance Credits	8,463,375	-	8,463,375	100%	
Other Income		542	(542)	0%	
	66.151.457	2.808.660	63.342.797	96%	
Net Annual Cost to Participants	\$ 27,923,503			91%	
Total Variable Costs	50,918,015	1,578,045	49,339,970		
Total Fixed Costs	43,156,945	3,724,502	39,432,443		
TOTAL LINEA OUSIS	\$ 94,074,960	\$ 5.302.547	\$ 88,772,413	•	
	ψ 94,074,960	ψ 5,302,547	ψ 00,112,413	•	

Total Variable Costs Total Fixed Costs		50,918,015 43,156,945		1,578,045 3,724,502	 49,339,970 39,432,443
	\$	94,074,960	\$	5,302,547	\$ 88,772,413
Net Cumulative Generation (MWh)		1,316,988		75,060	
Total O&M Cost Per MWh Net Annual Cost Per MWh	\$ \$	69.23 21.20	\$ \$	65.95 33.23	

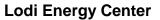
- A Slightly higher costs resulting from additional maintenance costs for annual outage.
- **B** Higher costs due to annual permit fees payment. Costs are expected to levelize for remainder of the year.
- **C** Amount includes prior year accrual reversal which will levelize when payment is made.

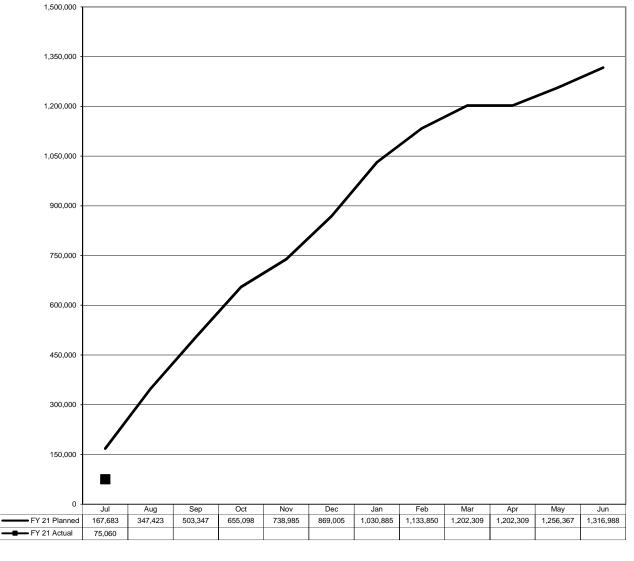




Annual Budget LEC Generation Analysis Planned vs. Actual FY 2021

In MWh







Lodi Energy Center Project Participant Committee LEC GHG Reports

Date: September 14, 2020

To: Lodi Energy Center Project Participant Committee

AGENDA ITEM NO.: 10

Subject: GHG Reports (excerpted from monthly ARB)

				NCPA All Re	sources Bill Imports GF Septeml	IG Obligation Report (G per 2020	umulative)							
IDENTIFIER	AZU L&P	BART	Biggs	CDWR	Gridley	Healdsburg	Lodi	Lompoc	MID	Plumas	PWR	SVP	Ukiah	Total
Allocation Percentages														
Generation Entitlement Share(%)	2.79%	6.60%	0.27%	33.50%	1.96%	1.64%	9.50%	2.04%	10.71%	0.79%	2.67%	25.75%	1.79%	100.00%
Obligation Accounts														
Current MT Compliance Obligation (MTO) Balance (MT)	28,774	68,176	2,770	346,036	20,286	16,972	98,001	20,996	110,669	8,118	27,558	265,986	18,441	1,032,783
Current MT Compliance Instrument Account (MTA) Balance (MT)	32,244	68,309	2,829	371,688	20,408	17,289	98,793	21,090	120,162	8,463	25,607	346,685	18,644	1,152,211
MTA Shortfall (MT)	(3,470)	(133)	(59)	(25,652)	(122)	(317)	(792)	(94)	(9,493)	(345)	1,951	(80,699)	(203)	(119,428)
Monthly GHG Price \$/MT	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	21.62	
GHG Minimum Cash Compliance Obligation (\$)	0	0	0	0	0	0	0	0	0	0	42,181	0	0	42,181
Current Month CCA Balance (\$)*	65,708	0	154	0	1,188	5,150	835	0	0	0	31,259	0	2,857	107,151
Net GHG Obligation (\$)	0	0	0	0	0	0	0	0	0	0	10,922	0	0	10,922

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

				CY 202	0 NCPA All Reso	urces Bill LEC GH	G Compliance In:	strument Detail R	Report for Lodi Er	nergy Center				
				Actual						Estimated			CY 2020	Cumulative
IDENTIFIER	January	February	March	April	May	June	July	August	September	October	November	December	Total	Total
Energy (MWh)	64,890	0	0	0	0	36,730	75,070	149,987	153,083	140,012	164,778	148,535	933,085	8,829,913
Gas Schedule (MMBtu)	466,226	7	6	2	0	274,035	552,145	1,163,901	1,187,924	1,086,497	1,278,681	1,152,631	7,162,055	64,630,425
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		
HVAC/Water Heater (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0	4,695
Monthly MT Obligation (MTO)	25,160	0	0	0	0	14,788	29,796	62,810	64,106	58,633	69,004	62,202	386,499	3,493,447
Annual Cal e-GGRT/MT Obligation True Up (MTO)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cumulative MT Obligation (MTO)	860,187	860,187	860,187	860,187	860,187	874,975	904,771	967,581	1,031,687	1,090,320	1,159,324	1,221,526	1,221,526	1,221,526
Compliance Instrument Participant Transfers														
Carryover Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	32,263
Auction Allowances	1,568	0	0	2,000	0	0	16,813	90,849	0	0	0	0	111,230	3,329,474
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	1,568	0	0	2,000	0	0	16,813	90,849	0	0	0	0	111,230	3,361,737
NCPA Compliance Instrument Purchases														
Auction Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	47,000
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument NCPA Purchases (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0	47,000
Compliance Instruments Internal Transfers (LEC from/to STIG)	0	0	0	0	0	0	0	0	0	0	0	0	0	(678)
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0	2,267,985
Total Monthly Activity (MT)	1,568	0	0	2,000	0	0	16,813	90,849	0	0	0	0	111,230	3,408,059
Cumulative MT Account Balance (MTA)	1,031,090	1,031,090	1,031,090	1,033,090	1,033,090	1,033,090	1,049,903	1,140,752	1,140,752	1,140,752	1,140,752	1,140,752	1,140,752	1,140,752
MTA Shortfall (MT)	(170,903)	(170,903)	(170,903)	(172,903)	(172,903)	(158,115)	(145,132)	(173,171)	(109,065)	(50,432)	18,572	80,774	80,774	80,774
Current Month CCA Balance (\$)	0	0	0	0	0	0	0	0	107,152	0	0	0	0	107,152
Monthly GHG Price	17.73	17.81	21.06	17.95	18.03	21.34	18.17	18.25	21.62	18.39	18.47	21.90		



Lodi Energy Center Project Participant Committee

Staff Report AGENDA ITEM NO.: 11

Date: September 2, 2020

Meeting Date: September 14, 2020

To: Lodi Energy Center Project Participant Committee

Subject: Northwest Industrial Engine and Compressor Company – Five Year Multi-Task

General Services Agreement; Applicable to the following projects: All Northern California Power Agency (NCPA) Facilities, NCPA Members, Southern California

Public Power Authority (SCPPA), and SCPPA Members.

Proposal

Approve the General Manager or his designee to enter into a Multi-Task General Services Agreement with Northwest Industrial Engine and Compressor Company for inspection and maintenance related services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$500,000 over five years for use at all facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, or by SCPPA Members.

Background

Inspection and maintenance services are required from time to time for the operation and maintenance of facilities owned and/or operated by NCPA, NCPA Members, by SCPPA, or by SCPPA Members. NCPA had a previous agreement in place with Northwest Industrial Engine and Compressor Company, which is expiring. NCPA has utilized this vendor in the past, and has a good working relationship with the vendor. NCPA desires to enter into this agreement so established terms and conditions are in place should this vendor be the successful bidder on future projects. NCPA has existing agreements in place with Cisco Air Systems, EthosEnergy, KSB, Inc. and Sulzer Turbo Services Houston, Inc. for similar services.

Selection Process

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA seeks bids from as many qualified providers as possible, bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

Fiscal Impact

Upon execution, the total cost of the agreement is not to exceed \$500,000 over five years. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

Northwest Industrial Engine and Compressor Company – 5 Year MTGSA September 14, 2020 Page 2

Environmental Analysis

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

Submitted by:

JOEL LEDESMA Assistant General Manager Generation Services

Attachments: (1)

 Multi-Task General Services Agreement with Northwest Industrial Engine and Compressor Company



MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND NORTHWEST INDUSTRIAL ENGINE AND COMPRESSOR COMPANY

This Multi-Task General Services Agreement ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Northwest Industrial Engine and Compressor Company, a sole proprietorship with its office located at 525 Delano Drive, Oakdale, CA 95361 ("Contractor") (together sometimes referred to as the "Parties") as of _______, 2020 ("Effective Date") in Roseville, California.

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

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

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

Section 2. COMPENSATION. Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** FIVE HUNDRED THOUSAND dollars (\$500,000.00) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

- **2.1 Invoices.** Contractor shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:
 - The beginning and ending dates of the billing period;
 - Work performed;
 - The Purchase Order number authorizing the Requested Work;
 - At Agency's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction;
 - At Agency's option, the total number of hours of work performed under the Agreement by Contractor and each employee, agent, and subcontractor of Contractor performing work hereunder.

Invoices shall be sent to:

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

- **Monthly Payment.** Agency shall make monthly payments, based on invoices received, for Work satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Contractor.
- **2.3** Payment of Taxes. Contractor is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.
- **2.4** Authorization to Perform Work. The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

- **2.5** Timing for Submittal of Final Invoice. Contractor shall have ninety (90) days after completion of the Requested Work to submit its final invoice for the Requested Work. In the event Contractor fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Contractor is deemed to have waived its right to collect its final payment for the Requested Work from Agency.
- <u>Section 3.</u> <u>FACILITIES AND EQUIPMENT.</u> Except as set forth herein, Contractor shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Work.
- **Section 4. INSURANCE REQUIREMENTS.** Before beginning any Work under this Agreement, Contractor, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.
 - **Workers' Compensation.** If Contractor employs any person, Contractor shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Contractor with limits of not less than one million dollars (\$1,000,000.00) per accident.
 - 4.2 <u>Commercial General and Automobile Liability Insurance.</u>
 - 4.2.1 Commercial General Insurance. Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a minimum limit of \$2,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
 - 4.2.2 Automobile Liability. Contractor shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Contractor, on or off Agency premises. The policy shall provide a minimum limit of \$2,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.
 - **4.2.3** General Liability/Umbrella Insurance. The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.

- **4.3** Professional Liability Insurance. Not Applicable.
- **4.4 Pollution Insurance.** Not Applicable.
- 4.5 <u>All Policies Requirements.</u>
 - 4.5.1 <u>Verification of coverage.</u> Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2 and in Section 4.4, if applicable, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
 - 4.5.2 <u>Notice of Reduction in or Cancellation of Coverage.</u> Contractor shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
 - **4.5.3** <u>Higher Limits.</u> If Contractor maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Contractor.
 - 4.5.4 Additional Certificates and Endorsements. If Contractor performs Work for Agency members, SCPPA and/or SCPPA members pursuant to this Agreement, Contractor shall provide the certificates of insurance and policy endorsements, as referenced in Section 4.5.1, naming the specific Agency member, SCPPA and/or SCPPA member for which the Work is to be performed.
 - 4.5.5 <u>Waiver of Subrogation.</u> Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Contractor, its employees, agents and subcontractors.
- 4.6 Contractor's Obligation. Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Work are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Contractor shall also ensure that all workers involved in the provision of Work are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

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

Section 6. STATUS OF CONTRACTOR.

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

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

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

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

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

 <u>Materials Transport Vendors.</u> If requested by the Agency, Contractor shall, at the same time it executes this Agreement, execute Exhibit D.
- **Maintenance Labor Agreement.** If the Work is subject to the terms of one or more Maintenance Labor Agreements, which are applicable only to certain types

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

Section 7. LEGAL REQUIREMENTS.

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

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

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

Contractor shall provide a certified copy of its payroll, on forms to be determined by the Agency and consistent with the Labor Code, within ten (10) days of the Contractor's receipt of Agency's written request therefor. Contractor's failure to timely comply with this provision may subject the Contractor to penalties pursuant to state law.

Contractor shall comply with applicable law, including Labor Code Sections 1774 and 1775. In accordance with Section 1775, Contractor shall forfeit as a penalty to Agency \$200.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for such work or craft in which such worker is employed for any Work done under the Agreement by Contractor or by any subcontractor under Contractor in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 et seq. In addition to the penalty and pursuant to Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

Section 8. TERMINATION AND MODIFICATION.

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

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

- **8.2** Amendments. The Parties may amend this Agreement only by a writing signed by both of the Parties.
- **8.3 Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.
- **8.4** Options upon Breach by Contractor. If Contractor materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
 - **8.4.1** Immediately terminate the Agreement;
 - **8.4.2** Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Contractor pursuant to this Agreement;

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

Section 9. KEEPING AND STATUS OF RECORDS.

- 9.1 Records Created as Part of Contractor's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.
- 9.2 <u>Contractor's Books and Records.</u> Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.
- 9.3 Inspection and Audit of Records. Any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.
- 9.4 <u>Confidential Information and Disclosure.</u>
 - 9.4.1 <u>Confidential Information.</u> The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to

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

- 9.4.2 Non-Disclosure of Confidential Information. During the term of this Agreement, either party may disclose (the "Disclosing Party") Confidential Information to the other party (the "Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.
- 9.4.3 Permitted Disclosure. Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:
 - **9.4.3.1** Disclosure to employees, agents, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.
 - **9.4.3.2** Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and
 - **9.4.3.3** Disclosure by Agency in response to a request pursuant to the California Public Records Act.
- 9.4.4 Handling of Confidential Information. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

Section 10. PROJECT SITE.

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

Section 11. WARRANTY.

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

- 11.2 <u>Deficiencies in Work.</u> In addition to all other rights and remedies which Agency may have, Agency shall have the right to require, and Contractor shall be obligated at its own expense to perform, all further Work which may be required to correct any deficiencies which result from Contractor's failure to perform any Work in accordance with the standards required by this Agreement. If during the term of this Agreement or the one (1) year period following completion of the Work, any equipment, supplies or other materials or Work used or provided by Contractor under this Agreement fails due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable written notice from Agency, replace or repair the same to Agency's satisfaction.
- **11.3** Assignment of Warranties. Contractor hereby assigns to Agency all additional warranties, extended warranties, or benefits like warranties, such as insurance, provided by or reasonably obtainable from suppliers of equipment and material used in the Work.
- <u>Section 12.</u> <u>HEALTH AND SAFETY PROGRAMS.</u> The Contractor shall establish, maintain, and enforce safe work practices, and implement an accident/incident prevention program intended to ensure safe and healthful operations under their direction. The program shall include all requisite components of such a program under Federal, State and local regulations and shall comply with all site programs established by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4.
 - **12.1** Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.
 - 12.2 Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.
 - **12.3** Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.
 - 12.4 Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.

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

Section 13. MISCELLANEOUS PROVISIONS.

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

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

- **No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- 13.6 <u>Conflict of Interest.</u> Contractor may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 et seq.

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

- **13.7** Contract Administrator. This Agreement shall be administered by Joel Ledesma, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- **13.8 Notices.** Any written notice to Contractor shall be sent to:

Northwest Industrial Engine and Compressor Company Attention: Gavin "Deon" Yates P.O. Box 737 Riverbank, CA 95367

Any written notice to Agency shall be sent to:

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

With a copy to:

Jane E. Luckhardt General Counsel Northern California Power Agency 651 Commerce Drive Roseville, CA 95678

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

- **13.13** Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- 13.14 <u>Construction of Agreement.</u> Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- 13.15 No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

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

NORTHERN CALIFORNIA POWER AGENCY	NORTHWEST INDUSTRIAL ENGINE AND COMPRESSOR COMPANY
Date	Date
RANDY S. HOWARD, General Manager	GAVIN D. YATES, Owner
Attest:	
Assistant Secretary of the Commission	
Approved as to Form:	
Jane E. Luckhardt, General Counsel	

EXHIBIT A

SCOPE OF WORK

Northwest Industrial Engine and Compressor Company ("Contractor") shall provide engine, compressor, pump and turbine maintenance and inspection related services as requested by the Northern California Power Agency ("Agency") at any facilities owned or operated by Agency, NCPA Members, Southern California Public Power Authority (SCPPA) or SCPPA Members.

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

• Inspections and maintenance on engines, compressors, pumps and turbines

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

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

PREVAILING WAGE RATES	Straight Time	<u>Overtime</u>	<u>Double Time</u>	<u>Travel Time</u>
Foreman	\$140.00	\$210.00	\$280.00	\$140.00
Journeyman	\$135.00	\$202.00	\$270.00	\$135.00
Apprentice	\$110.00	\$165.00	\$210.00	\$110.00
General Foreman/Sup	\$150.00	\$225.00	\$300.00	\$150.00
Truck & Tool	\$25.00	\$25.00	\$25.00	
Subsistence - Per Day	\$160.00	Per Person		
Mileage Fuel Surcharge	\$ 0.75	Per Mile		
Laser Alignment Tooling	\$250.00	Per Day		

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

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

EXHIBIT C

CERTIFICATION

Affidavit of Compliance for Contractors

l, 						
(Name of pers	son signing affidavit)(Title)					
do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of						
Northwest Industrial Engine and Compressor Company						
(Company name)						
for contract work at:						
LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242						
(Project	t name and location)					
have been conducted as required by the C above-named project.	California Energy Commission Decision for the					
(Signatur	re of officer or agent)					
Dated this day of	, 20					
	LL BE APPENDED TO THE PROJECT SECURI L TIMES AT THE PROJECT SITE FOR REVIEW DN COMPLIANCE PROJECT MANAGER.					

NOT APPLICABLE

EXHIBIT D

CERTIFICATION

Affidavit of Compliance for Hazardous Materials Transport Vendors

,								
(Name of person signing affidavit)(Title)								
nereby certify that the below-named company has prepared and implemented security plans onformity with 49 CFR 172, subpart I and has conducted employee background stigations in conformity with 49 CFR 172.802(a), as the same may be amended from time to e,								
(Company name)								
nazardous materials delivery to:								
LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242								
(Project name and location)								
equired by the California Energy Commission Decision for the above-named project.								
(Signature of officer or agent)								
ed this, 20								
S AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY IN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY E CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.								

EXHIBIT E

ATTACHMENT A [from MLA] AGREEMENT TO BE BOUND

MAINTENANCE LABOR AGREEMENT ATTACHMENT LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

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

DATED:	Name of Employer	,		
		(Authorized Officer & Title)		
		(Address)		

Note: Short duration, Collierville Bi-Monthly Maintenance Outages not included

Rev1 - 2021 and 2022 preliminary dates added for Hydro and CT

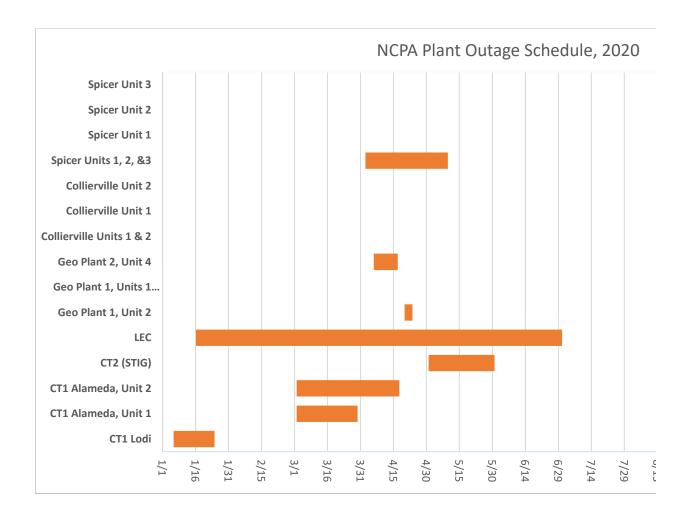
Rev1, 5/27/2020, 15:3

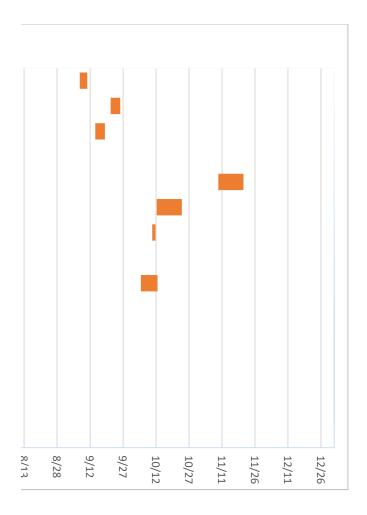
PLANT	SLIC UNIT ID	UNIT NAME	MW	START DATE/TIME	DURATION (DAYS)	END DATE/TIME
CT's	LODI25_UNIT_1	CT1 Lodi	23	1/6/2020 0:01	18.7	1/24/2020 16:00
CT's	ALMEGT_1_UNIT 1	CT1 Alameda, Unit 1	23	3/2/2020 0:01	27.7	3/29/2020 16:00
CT's	ALMEGT_1_UNIT 2	CT1 Alameda, Unit 2	23	3/2/2020 0:01	46.7	4/17/2020 16:00
CT's	STIGCT_2_LODI	CT2 (STIG)	49.9	5/1/2020 0:01	30.0	5/31/2020 0:00
CT's	LODIEC_2_PL1X2	LEC	302	1/16/2020 3:56	166.5	6/30/2020 16:00
Geo	GeoP1U2	Geo Plant 1, Unit 2	11	4/20/2020 2:00	3.6	4/23/2020 16:00
Geo	GeoP1U1 & GeoP1U2	Geo Plant 1, Units 1 & 2	60	10/5/2020 2:00	7.6	10/12/2020 16:00
Geo	GeoP2U4	Geo Plant 2, Unit 4	42	4/6/2020 1:00	10.9	4/16/2020 23:00
Hydro	COLVIL_7_PL1X2	Collierville Units 1 & 2	253	10/10/2020 7:00	1.5	10/11/2020 18:00
Hydro	COLVIL_7_PL1X2	Collierville Unit 1	126.5	10/12/2020 7:00	11.5	10/23/2020 18:00
Hydro	COLVIL_7_PL1X2	Collierville Unit 2	126.5	11/9/2020 7:00	11.5	11/20/2020 18:00
Hydro	SPICER_1_UNITS	Spicer Units 1, 2, &3	6	4/2/2020 7:00	37.5	5/9/2020 18:00
Hydro	SPICER_1_UNITS	Spicer Unit 1	2.8	9/14/2020 8:00	4.4	9/18/2020 17:00
Hydro	SPICER_1_UNITS	Spicer Unit 2	2.8	9/21/2020 8:00	4.4	9/25/2020 17:00
Hydro	SPICER_1_UNITS	Spicer Unit 3	0.5	9/7/2020 8:00	3.4	9/10/2020 18:00
PLANT	SLIC UNIT ID	UNIT NAME	MW	START DATE/TIME	DURATION (DAYS)	END DATE/TIME
CT's	LODI25_UNIT_1	CT1 Lodi	23	2/1/2021	27.0	2/28/2021
CT's	ALMEGT_1_UNIT 1	CT1 Alameda, Unit 1	23	10/1/2021	30.0	10/31/2021
CT's	ALMEGT_1_UNIT 2	CT1 Alameda, Unit 2	23	10/1/2021	60.0	11/30/2021
CT's	STIGCT_2_LODI	CT2 (STIG)	49.9	4/1/2021	29.0	4/30/2021
CT's	LODIEC_2_PL1X2	LEC	302	4/1/2021	29.0	4/30/2021
Geo	GeoP1U2	Geo Plant 1, Unit 1	27	5/5/2021	9.0	5/14/2021
Geo	GeoP1U3	Geo Plant 1, Unit 2	27	5/9/2021	5.0	5/14/2021
Geo	GeoP1U4	Geo Plant 2, Unit 4	40	5/12/2021	5.0	5/17/2021
Hydro	COLVIL_7_PL1X2	Collierville Units 1 & 2	253	10/1/21 5:00	2.6	10/3/21 19:00
Hydro	COLVIL_7_PL1X2	Collierville Unit 1	126.5	10/4/21 7:00	11.5	10/15/21 18:00
Hydro	COLVIL_7_PL1X2	Collierville Unit 2	126.5	10/18/21 7:00	11.5	10/29/21 18:00

PLANT	SLIC UNIT ID	UNIT NAME	MW	START DATE/TIME	DURATION (DAYS)	END DATE/TIME
Hydro	SPICER_1_UNITS	Spicer Unit 1	2.8	9/13/21 8:00	4.4	9/17/21 17:00
Hydro	SPICER_1_UNITS	Spicer Unit 2	2.8	9/20/21 8:00	4.4	9/24/21 17:00
Hydro	SPICER_1_UNITS	Spicer Unit 3	0.5	9/6/21 8:00	3.4	9/9/21 18:00
PLANT	SLIC UNIT ID	UNIT NAME	MW	START DATE/TIME	DURATION (DAYS)	END DATE/TIME
CT's	LODI25_UNIT_1	CT1 Lodi	23	2/1/2022	27.0	2/28/2022
CT's	ALMEGT_1_UNIT 1	CT1 Alameda, Unit 1	23	1/1/2022	30.0	1/31/2022
CT's	ALMEGT_1_UNIT 2	CT1 Alameda, Unit 2	23	1/1/2022	30.0	1/31/2022
CT's	STIGCT_2_LODI	CT2 (STIG)	49.9	4/1/2022	29.0	4/30/2022
CT's	LODIEC_2_PL1X2	LEC	302	3/1/2022	91.0	5/31/2022
Geo	GeoP1U2					
Geo	GeoP1U3					
Geo	GeoP1U4					
Hydro	COLVIL_7_PL1X2	Collierville Units 1 & 2	253	10/7/22 5:00	2.6	10/9/22 19:00
Hydro	COLVIL_7_PL1X2	Collierville Unit 1	126.5	10/10/22 7:00	11.5	10/21/22 18:00
Hydro	COLVIL_7_PL1X2	Collierville Unit 2	126.5	11/7/22 7:00	11.5	11/18/22 18:00
Hydro	SPICER_1_UNITS	Spicer Unit 1	2.8	9/12/22 8:00	4.4	9/16/22 17:00
Hydro	SPICER_1_UNITS	Spicer Unit 2	2.8	9/19/22 8:00	4.4	9/23/22 17:00
Hydro	SPICER_1_UNITS	Spicer Unit 3	0.5	9/5/22 8:00	3.4	9/8/22 18:00
PLANT	SLIC UNIT ID	UNIT NAME	MW	START DATE/TIME	DURATION (DAYS)	END DATE/TIME
CT's	LODI25_UNIT_1	CT1 Lodi	23	2/1/2023	27.0	2/28/2023
CT's	ALMEGT_1_UNIT 1	CT1 Alameda, Unit 1	23	1/1/2023	30.0	1/31/2023
CT's	ALMEGT_1_UNIT 2	CT1 Alameda, Unit 2	23	1/1/2023	30.0	1/31/2023
CT's	STIGCT_2_LODI	CT2 (STIG)	49.9	4/1/2023	29.0	4/30/2023
CT's	LODIEC_2_PL1X2	LEC	302	4/1/2023	29.0	4/30/2023
Geo	GeoP1U2	Geo Plant 1, Unit 1				
Geo	GeoP1U3	Geo Plant 1, Unit 2				
Geo	GeoP1U4	Geo Plant 2, Unit 4				
Hydro	COLVIL_7_PL1X2	Collierville Unit 1				
Hydro	COLVIL_7_PL1X2	Collierville Unit 2				
Hydro	SPICER_1_UNITS	Spicer Unit 1				
Hydro	SPICER_1_UNITS	Spicer Unit 2				
Hydro	SPICER_1_UNITS	Spicer Unit 3				

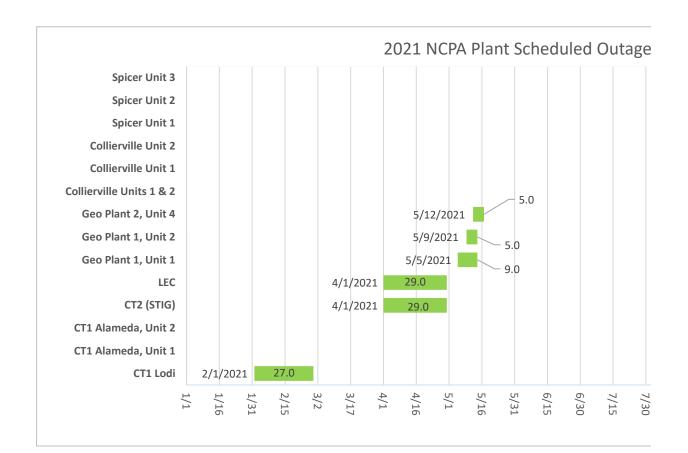
WORK TO BE PERFORMED Annual Maintenance
Annual Maintenance
Annual Maintenance
Annual Maintenance
Turbine Failure / Annual Maintenance
Exciter cooler cleaning, lube oil piping repair, ejector nozzle cleaning, seal well modifications, 480 v breaker replacement
Stretford cleaning, HVAC duct install, relay settings change, control valve
leak repair and calibration, 480 v breaker replacement
T3K upgrade, gas ejector upgrade
Collierville dual unit trip tests, fire system maintenance McKays intake
trash rack cleaning
CV1 Annual Maintenance
CT2 Annual Maintenance
PG&E Transmission Induced Outage
NSM1 Annual Maintenance
NSM2 Annual Maintenance
NSM3 & Intake Annual Maintenance
WORK TO BE PERFORMED
Annual Maintenance
Annual Maintenance / Starting Motor
Major / Starting Motor
Annual Maintenance
Annual Maintenance
Annual Maintenance, 230 inspection, HVAC install
Annual Maintenance, 230 inspection, HVAC install
Annual Maintenance, 230 inspection
Collierville dual unit trip tests, fire system maintenance & and McKays
intake trash rack cleaning
CV1 Annual Maintenance
CV2 Annual Maintenance

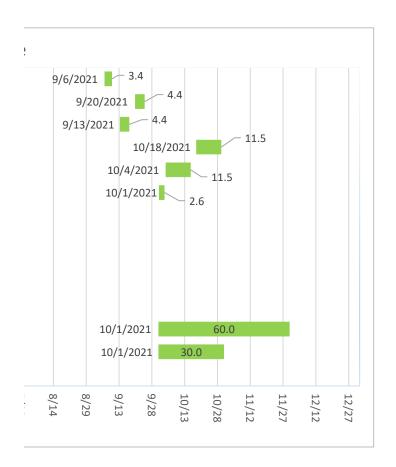
WORK TO BE PERFORMED
NSM1 Annual Maintenance
NSM2 Annual Maintenance
NSM3 & Intake Annual Maintenance
WORK TO BE PERFORMED
Annual Maintenance
Annual Maintenance / Excitation
Annual Maintenance / Excitation
Annual Maintenance
Annual Maintenance / ST-Gen Major, ULN, Hydrogen, SFC)
Collierville dual unit trip tests, fire system maintenance & and McKays
intake trash rack cleaning
CV1 Annual Maintenance
CV2 Annual Maintenance
NSM1 Annual Maintenance
NSM2 Annual Maintenance
NSM3 & Intake Annual Maintenance
WORK TO BE PERFORMED
Annual Maintenance / T3K
Annual Maintenance / T3K
Annual Maintenance / T3K
Annual Maintenance
Annual Maintenance



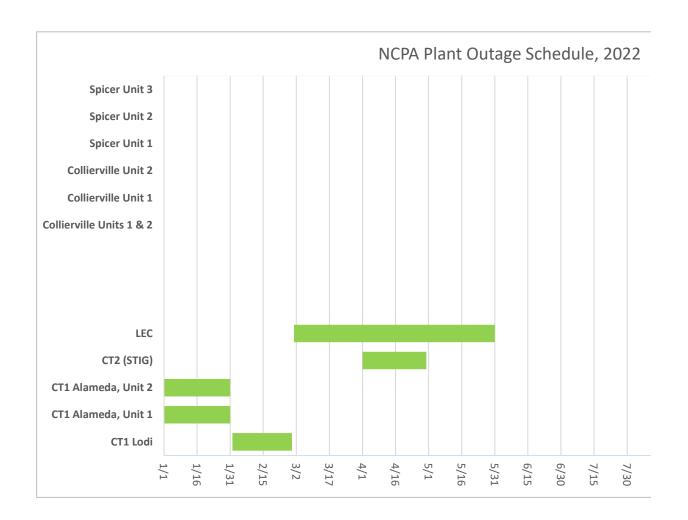


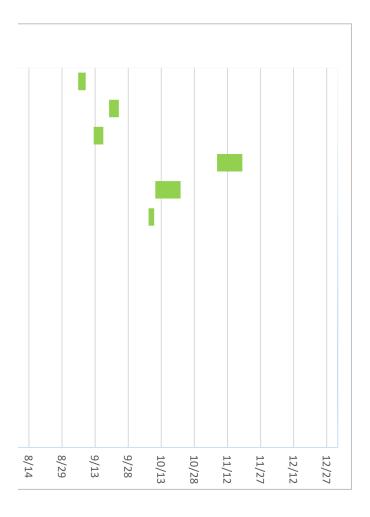
1/1/2020 43831 1/1/2021 44197



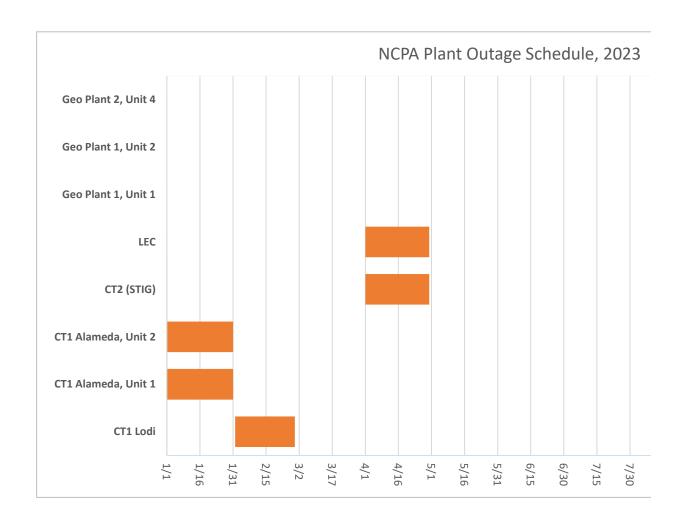


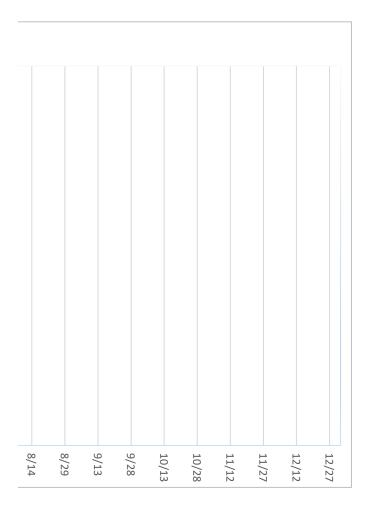
1/1/2021 44197 1/1/2022 44562





1/1/2022 44562 1/1/2023 44927





1/1/2023 44927 1/1/2024 45292



2021 Maintenance Outage Schedule

Generation Services September 2, 2020



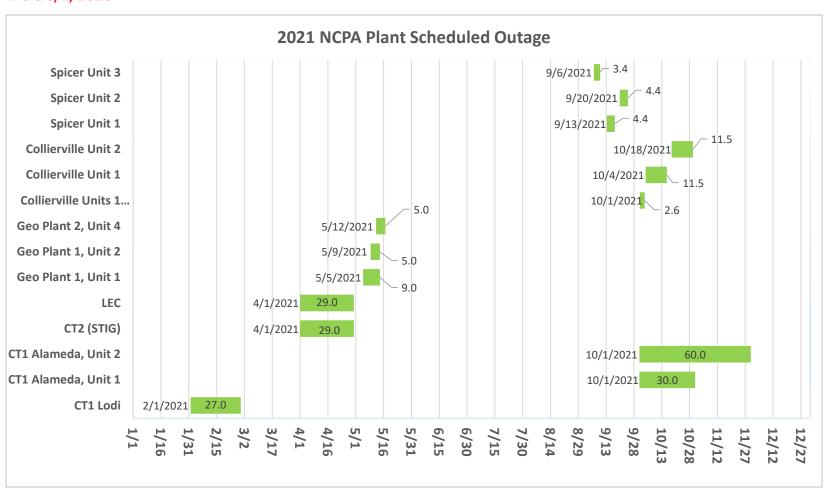
2021 Maintenance Outage Schedule

- Background
 - NCPA provides an outage schedule to Facility Committee
 - Facility Committee reviews/comments/approves
 - NCPA submits the schedule to CASIO (mid-October)
 - Not a Commission Committee item
 - Previous Concerns: 2019 Notes (for the 2020 schedule)
 - Two Geo outages spread across two months causing RA conflicts
 - Committee requested a review, staff revised the schedule to accommodate the RA conflict
 - Re-Aligned outages into a single month, committee approved
 - Previous concerns taken into account for 2021



2021 Maintenance Outage Schedule

Draft: 9/2/2020





2021 Maintenance Outage Schedule Details

Draft: 9/2/2020

UNIT NAME	MW	START DATE/TIME	DURATION (DAYS)	END DATE/TIME	WORK TO BE PERFORMED
CT1 Lodi	23	2/1/2021	27.0	2/28/2021	Annual Maintenance
CT1 Alameda, Unit 1	23	10/1/2021	30.0	10/31/2021	Annual Maintenance / Starting Motor
CT1 Alameda, Unit 2	23	10/1/2021	60.0	11/30/2021	Major / Starting Motor
CT2 (STIG)	49.9	4/1/2021	29.0	4/30/2021	Annual Maintenance
LEC	302	4/1/2021	29.0	4/30/2021	Annual Maintenance
Geo Plant 1, Unit 1	27	5/5/2021	<mark>9.0</mark>	5/14/2021	Annual Maintenance, 230 inspection, HVAC install
Geo Plant 1, Unit 2	27	5/9/2021	<mark>5.0</mark>	5/14/2021	Annual Maintenance, 230 inspection, HVAC install
Geo Plant 2, Unit 4	40	5/12/2021	<mark>5.0</mark>	5/17/2021	Annual Maintenance, 230 inspection
Collierville Units 1 & 2	253	10/1/21 5:00	2.6	10/3/21 19:00	Collierville dual unit trip tests, fire system maintenance & and McKays intake trash rack cleaning
Collierville Unit 1	126.5	10/4/21 7:00	11.5	10/15/21 18:00	CV1 Annual Maintenance
Collierville Unit 2	126.5	10/18/21 7:00	11.5	10/29/21 18:00	CV2 Annual Maintenance
Spicer Unit 1	2.8	9/13/21 8:00	4.4	9/17/21 17:00	NSM1 Annual Maintenance
Spicer Unit 2	2.8	9/20/21 8:00	4.4	9/24/21 17:00	NSM2 Annual Maintenance
Spicer Unit 3	0.5	9/6/21 8:00	3.4	9/9/21 18:00	NSM3 & Intake Annual Maintenance



Proposal

 Option 1 – Approve the NCPA 2021 maintenance outage schedule and submit to the CAISO early when the outage window opens on 10/15/2020.

Option 2 – If revision are requested, revise if possible, return to Facility Committee for approval on 10/7/2020 and submit the maintenance outage schedule to the CAISO early when the outage window opens on 10/15/2020.



Hydrogen Information

Michael DeBortoli CT Manager 9/14/2020



Conversion

- Hydrogen engineers like to talk Kg
- Power Plant People like to talk MMbtu
- 0.1345 MMbtu (HHV) / Kg

15vol% = 5% Energy (MMbtu)



Emissions

- Current DLN Combustors
 - Turbine Exhaust NO_x 25 PPM (natural gas)
- New ULN Combustors
 - Turbine Exhaust NO_x 9 PPM (natural gas)
 - Turbine Exhaust NO_x 12 PPM (25vol% H₂)



Material Compatibility

- Need to Review material of
 - Piping
 - Heat Exchangers
 - Manifolds
 - Nozzles
- Depending on blend, material subject to Hydrogen Embrittlement Cracking
- Example Fuel Gas Heater material would need changed at greater than 15vol% H₂



Storage Option:

LEC Hydrogen Study Storage

Tube Trailer

- · Relatively inexpensive
- · Can be stacked
- Similar to trailer for transport
- · But limited volume

0.0.1. 3	AAX 2600 Specifications			
Tare Weight	6 tube unit 35,000 to +7,000 to for chassis			
Water Volume	80.00 cu.t. / tube=480 total 2.26 / 13.6m ^A			
Tube Length & Diameter	Tubes 36 ft. long × 22 in. diameter			
Transi Langth	40 ft.			
Ar+	@ 10% over#8-287t psr. @ 70°F = 91,97t cu.ft.			
Argon*	@ 10% over\$8-2871 psi. @ 70°F = 99,552 cu.ft.			
Carbon Monoistic	Ø 1950 pst. = 63,086 ou.ft.			
Ethane	10,500 to total			
Ethylene	10,500 lb spial			
Helsm*	@ 10% overfil-2871 pst @ 70°F * 86,136 cu.ft.			
Hydrogen	# 2600 psi. = 76,778 cun. 2174Nm^3 @ 179b.			
Methane	g 2600 pg. = 10,194 сыл.			
Ntrogen*	Ø 10% overfill-2871 ppl. Ø 70°F = 89,611 cu.ft.			
Non-odorzed Natural Gas 99.5%+	@ 2000 psr. = 110,194 cu ft.			
Coviden ⁴⁴	" Contact us for more details			





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Storage Option:

LEC Hydrogen Study Storage



Hortonsphere

- Huge
- · Cost: pending
- · Preliminary sizing:
 - 1x sphere,
 - 46ft (14m) diameter
 - 51,000 cu ft (1450 m³)
 - space reservation for 2nd sphere



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Operational Theory:

Generate Hydrogen during solar hours for several days, consume in one day.

	Variant	A1	A2	В	С	Comments	
Silyzer	Number	"4/24 th "	"6/24 th "	1x (base)	3x		
Power	MW	2.9	4.4	17.5	52.5		
H ₂ production	kg/hr	55	82	330	990		
Demin water	gpm	2.4	3.6	14.5	45	(10kg water for 1kg H ₂)	
Factor prod / op	hr per hr	16	11	2.7	0.9	Production time to operate LEC for 1 hr w/ 15% H ₂	
Tube module	16	7 kg of H ₂ p	er module,	2600 psi to 61	5psi	6 tubes per module	
Sphere 46ft Ø	7020 kg of H ₂ per s		per sphere,	1400psi to 61	15psi		
Scenario 1	8 hrs plant operation, base load, with 15vol% (= 5% energy)				ergy) H ₂ : 7000 kg		
Storage	42 tube modules or 1 sphere with 46ft						
Time to fill	hrs	127 (*)	85 (*)	21	7	Only 10 hrs/day surplus PV energy	

^(*) comment: H₂ production var (A) pilot size may put a burden on scheduling an effective H2 co-firing testing phase due to long waiting time between test runs

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MMbtu/hr 7.4 11.0 44.4 133.2

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Operational Theory:

Generate Hydrogen during solar hours during the day, burn at night.

	Variant	A1	A2	В	С	Comments
Silyzer	Number	"4/24 th "	"6/24 th "	1x (base)	3x	
Power	MW	2.9	4.4	17.5	52.5	
H2 prod	kg/hr	55	82	330	990	
Demin water	gpm	2.4	3.6	14.5	45	(10kg water for 1kg H ₂)
Factor prod / op	hr per hr	16	11	2.7	0.9	Production time to operate LEC for 1 hr w/ 15% H ₂
Tube module	16	7 kg of H ₂ p	er module,	2600 psi to 6	6 tubes per module	
Sphere 46ft Ø		7020 kg pe	r sphere, 14	100psi to 615	psi	
Scenario 2			10 hrs H ₂ p	roduction, sto	orage for one	day
Storage required		3x tube modules	5x tube modules	0.5 sphere (1x for 2 days production)	1.4 spheres	
Time to operate LEC	· ·	35min (*)	55min (*)	3¾hrs	11hrs	with 15% H2

^(*) comment: storage limits H₂ availability for each operation period; this may not be enough to support gas turbine H₂ test runs

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MMbtu/hr	7.4	11.0	44.4	133.2
•				



Sample Calculations

Let's Assume

Purchased Power (\$/MWHr)	10	15	20
System Size	1X	1X	1X
Power Consumed (MW)	17.5	17.5	17.5
Cost of Power (\$/Hr)	175	262.5	350
H₂ Production (MMbtu/Hr)	44.4	44.4	44.4
H ₂ Cost of Production (\$/MMbtu)*	3.94	5.91	7.88
GHG Savings (\$/MMBTU on 8/26)**	0.045	0.045	0.045
H₂ Net Cost of Production (\$/MMbtu)*	3.90	5.87	7.84
Burner Tip Fuel (\$/MMbtu on 8/26)***	5.05	5.05	5.05
Hours below Purchase Power Rate (Hours)****	369	648	1377

^{*}Does not include cost of capital or other O&M

^{**}Assumes 5% Energy Feed in (@ 100% feedin, 0.90\$/MMbtu savings)

^{***}Ignores the negotiated rate for gas transporation

^{****}This is how many hours in the last 12 months (starting 8/26) DA Price below the Purchase Power Rates