





BUSINESS PROGRESS REPORT

October 2017

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Generation Costs & Reliability

Combustion Turbine Project

Unit Operation for September

Unit	Availab	ility	Production		Reason for Run	
CT1 Alameda	Unit 1	Unit 2	Unit 1	527.2	MWHr	CAISO / CAISO
CTTAlameda	37.53%	10.02%	Unit 2	185.6	IVIVVITI	CAISO / CAISO

Curtailments, Outages, and Comments:

01-Sep-17, 20:29-23:59, Failed micronet card, loss of visibility of unit, Forced-3.5

02-Sep-17, 0:00-14:20, Failed micronet card, loss of visibility of unit, Forced-14.3

05Sep-15Sep, 0:00-23:59,GSU transformer bushing replacement/nozzle replacement, Planned-264.0

16-Sep-17, 0:00-12:07, GSU transformer bushing replacement/nozzle replacement, Planned-12.1

16-Sep-17, 12:07-23:59, Failed station service transformer/nozzle replacement, Planned-11.9

17Sep-21Sep, 0:00-23:59, Failed station service transformer/nozzle replacement, Planned-120.0

22-Sep-17, 0:00-13:40, Failed station service transformer/nozzle replacement, Planned-13.7

27-Sep-17, 23:01-23:59, Micronet card, Forced-1.0

28-Sep-17, 0:00-9:20, Micronet card, Forced-9.3 / 01-Sep-17, 15:12-23:59, Water/fuel ratio deviation. High EGT on restart; diesel trouble, Forced-8.8

02-Sep-17, 0:00-10:07, Water/fuel ratio deviation. High EGT on restart; diesel trouble, Forced-10.1

02-Sep-17, 16:28-21:26, Water/fuel ratio deviation. High EGT on restart, Forced-5.0

05Sep-15Sep, 0:00-23:59, GSU transformer bushing replacement/nozzle replacement, Planned-264.0

16-Sep-17, 0:00-12:07, GSU transformer bushing replacement/nozzle replacement, Planned-12.1

16-Sep-17, 12:07-23:59, Failed station service transformer/nozzle replacement, Planned-11.9

17Sep-30Sep, 0:00-23:59, Failed station service transformer/nozzle replacement, Planned-336.0

Unit	Availability	Production	Reason for Run
CT1 Lodi	68.51%	640.3 MWHr	CAISO

Curtailments, Outages, and Comments:

05-Sep-17, 9:38-10:10, Gas leak repair, Forced-0.5

10-Sep-17, 18:26-19:56, Unit trip, cause unknown, Forced-1.5

18Sep-21Sep, 0:00-23:59, GSU transformer bushing replacement, Planned-96.0

22-Sep-17, 0:00-16:49, GSU transformer bushing replacement, Planned-16.8

22-Sep-17, 16:49-23:59, Bearing oil leak, Planned-7.2

23Sep-26Sep, 0:00-23:59, Bearing oil leak, Planned-96.0

27-Sep-17, 0:00-8:39, Bearing oil leak, Planned-8.7

Unit	Availability	Production	Reason for Run
CT2 STIG	100.00%	2,386.1 MWHr	CAISO

Curtailments, Outages, and Comments:

01-Sep-17, 14:02-20:14, Hydraulic system oil leak, Forced-6.2

03-Sep-17, 17:03-20:00, Chiller o/s, unit derate, Forced-0.0

29-Sep-17, 16:58-18:00, Rundown tank oil level, Forced-1.0

Unit	Availability	Production	Reason for Run
LEC	85.97%	93,626.8 MWHr	CAISO
Curtailments, Out	ages, and Comments:		
07-Sep-17, 6:00-7 07-Sep-17, 7:50-8 15-Sep-17, 16:49- 16-Sep-17, 0:00-1 16-Sep-17, 13:08- 17-Sep-17, 0:00-2 18-Sep-17, 0:00-2	11:39, Failed vibration sensor: 50, Late start IP drum leve 3:30, Late start IP drum leve -23:59, STG trip, control systems: 53:59, STG turning gear con 23:59, STG turning gear con 23:59, STG turning gear con 16:00, STG turning gear con 16:00, STG turning gear con	I control, Forced-1.8 I control - derate, Forced-0.0 I control - derate, Forced-0.0 I control - derate, Forced-7.2 I controller, Forced-13.1 I controller, Forced-10.9 I controller, Forced-24.0 I controller, Forced-24.0 I controller, Forced-24.0	

Maintenance Summary - Specific per asset above.

Geothermal Facilities

Availability/Production for September

Unit	Availability	Net Electricity Generated/Water Delivered	Out-of-Service/Descriptors
Unit 1	100 %	18,717 MWh	Unit 1 had no outages for the month.
Unit 2	100 %	*17,278 MWh	Unit 2 had no outages for the month.
Unit 3	N/A %	N/A	Unit 3 remains out of service for the month.
Unit 4	100 %	30,432 MWh	Unit 4 had no outages for the month.
Southeast Geysers Effluent Pipeline	98.2 %	235.5 mgallons	Average flow rate: 5,502 gpm
Southeast Solar Plant	N/A	61,616 KWh	Year-to-date KWh: 750,275
Bear Canyon Pump Station Zero Solar	N/A	174,311 KWh	Year-to-date KWh: 1,763,213

^{*} Accounts for an additional 2,269 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

Hydroelectric Project

Availability/Production for September

Units	Availability	Net Electricity Generated	Out-of-Service
Collierville Unit 1	100.00 %	15,534 MWh	CV #1 unit no reportable outages.
Collierville Unit 2	100.00 %	23,098 MWh	CV #2 unit.no reportable outages. Derate to 110mw due to stator ground fault repair.
Spicer Unit 1	89.06 %	1,551 MWh	NSM #1 unit was out of service, on 09/11/17 at 0930 through 09/14/17 at 1617 due to annual maintenance.
Spicer Unit 2	65.08 %	965 MWh	NSM #2 unit was out of service, on 09/18/17 at 0918 through 09/28/17 at 2039 due to annual maintenance and control system upgrade.
Spicer Unit 3	92.35 %	273 MWh	NSM #3 unit was out of service, on 09/05/17 at 0942 through 09/07/17 at 1648 due to annual maintenance.

Operations & Maintenance Activities:

- Monthly CMMS work orders
- Adit 4 Slide repair
- Beaver Creek Diversion Reservoir debris clean out in (phase2) completed
- Murphys Micro-wave project
- Spicer annual maintenance Units 1,2 and 3
- FERC annual Dam and Spillway Inspections & Part 12 workshop, FERC Project 2409 and 11563
- North Fork Tunnel Inspection (1 year after repairs)
- Spicer Campground water system SWRCB 5-year inspection

Environmental, Health & Safety (EH&S) Projects

Incident Reports

- There was one Geothermal vehicle accident, however, no recordable incidents, and no lost time accidents occurred in September.
- Find below a Safety Report that highlights the following areas: recordable incidents
 and lost time accidents (LTAs) reported this period and this calendar year; the
 number of days since last recordable or LTA; the number of work hours since last
 recordable or LTA; and vehicle accidents reported this month and this calendar year.
 In September of 2012, Generation Services completed an internal audit of its records
 with the results reflected in this report and as updated through the payroll period
 ended September 30, 2017.
- The "CT Group" column reflects the combined safety numbers of all CT employees.
 Beginning with the November 2009 report, the CT Group Column also includes Lodi Energy Center staff.

September
Generation Services Safety Report

Generation Services Salety Report				
	Hydro	GEO	CT Group *	NCPA HQ **
CalOSHA Recordable (this month)	0	0	0	0
CalOSHA Recordable (calendar year)	0	1	0	0
Days since Recordable	1018	265	908	5,976
Work Hours Since Last Recordable	87,596	50,630	133,466	2,154,024
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	1	0	0
Days without LTA	3,634	249	8,812	4,905
Work Hours without LTA	333,161	47,724	574,830	1,776,044
Vehicle Incident (month)	0	1	0	0
Vehicle Incident (calendar year)	0	2	1	1

^{*} CT Group: Combines CT-1, CT-2 and LEC Operations

Data originates from OSHA logs, HR records and payroll information.

Days and Hours are calculated through pay period ended September 30, 2017.

^{**} NCPA HQ: Roseville employees at the Main Office

Power Management/NCPA Market Results

Dispatch and Schedule Coordination

- NCPA Dispatch and Schedule Coordination Center safely, reliably, and economically schedules, monitors, and manages NCPA and NCPA member power resources and loads 24 hours per day, 7 days per week on a continuous basis. This process includes balancing MSSA loads and resources on a 5-minute basis, optimizing NCPA resources and minimizing ISO costs.
- NCPA MSSA Load Data:

Current Year 2017 Data

	September 2017		Calendar Year 2017		
	Peak MW	MWh	Peak MW	MWh	
NCPA Pool	485.85 9/1 @1700	206,942	485.85 9/1 @1700	1,809,600	
SVP	586.59 9/1 @1600	325,378	586.59 9/1 @1600	2,794,842	
MSSA	1070.79 9/1 @ 1700	532,320	1070.79 9/1 @ 1700	4,604,442	

Last Year 2016 Data*

	September 2016		Calendar Year 2016		
	Peak MW	MWh	Peak MW	MWh	
NCPA Pool	426.77 9/26 @1700	199,227	449.75 7/27 @1700	1,784,224	
SVP	534.21 9/26 @ 1700	305,263	534.21 9/26 @ 1700	2,658,979	
MSSA	960.98 9/26 @ 1700	504,490	968.73 7/27 @ 1600	4,443,203	

^{*}Last year's data added for comparison purposes only

System Peak Data

	All Time Peak Demand	2017 Peak Demand
NCPA Pool	517.83 MW on 7/24/06 @ 1500	485.85 9/1 @ 1700
SVP	586.59 MW on 9/1/17 @ 1600	586.59 9/1 @ 1600
MSSA	1070.79 MW on 9/1/17 @ 1700	1070.79 9/1 @ 1700

 NCPA MSSA has a Deviation Band with the CAISO, which is used as a performance measure by the CAISO. The ability to stay within this Deviation Band is a measure of NCPA Dispatch's ability to balance the MSSA Loads and Resources on a 5-minute basis. The following NCPA Deviation Band Performance table includes all deviations, including deviations from unit forced outages, metering and load outages, COTP, Western, and WECC curtailments.

NCPA Deviation Band Performance						
	September 2017	Calendar Year 2017				
MSSA % Within the Band	98.29%	97.61%				

Spicer Meadows:

- September 05 07, Unit 3 o/s for annual maintenance
- September 11 14, Unit 1 o/s for annual maintenance
- September 18 28, Unit 2 o/s for annual maintenance

Geothermal Units:

No curtailments

Lodi Energy Center:

- September 4 @ 0732 1105, plant o/s due to frayed wire causing false vibration indication
- September 7 @ 0600 0708 plant late start due to IP drum level control trouble
- September 15 @ 1649 STG trip due to control logic trip. CTG remained on line for duration of scheduled run. STG remained o/s
- September 16 @ 1353 CTG declared unavailable as troubleshooting STG trouble shut down turning gear. STG stopped turning and rotor bowed
- September 19 @ 1600 plant returned to service

Alameda CTs:

- September 1 @ 1512 September 2 @ 1007, Unit 2 o/s due to water/fuel ratio deviation, high EGT on restart, and diesel cranking motor trouble
- September 1 @ 2029 September 2 @ 1420, Unit 1 o/s due to failed Micronet card causing loss of remote visibility
- September 2 @ 1628 2126, Unit 2 o/s due to water/fuel ratio deviation
- September 5 16, Unit 1 & 2 o/s for replacement of GSU transformer bushings
- September 16 22, Unit 1 o/s due to failed station service transformer and nozzle replacement
- September 16 30, Unit 2 o/s due to failed station service transformer and nozzle replacement. Unit 2 remains o/s with loss of station service transformer allowing only one unit available at a time
- September 27 @ 2301 September 28 @ 0920, Unit 1 o/s due to failed Micronet card

Lodi CT:

- September 5 @ 0938 1010, unit o/s to repair gas leak
- September 10 @ 1826 1956, unit tripped, cause unknown
- September 18 22, unit o/s for replacement of GSU transformer bushings
- September 22 27, unit o/s due to bearing oil leak

Collierville Units:

September 1 – 30, Unit 2 remains derated due to stator ground fault repair

STIG:

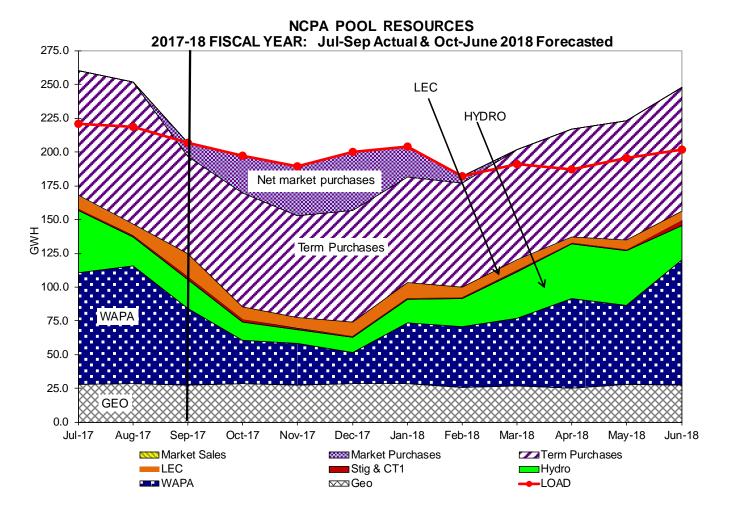
- September 1 @ 1402 2014, unit o/s due to hydraulic system oil leak
- September 3 @ 1703 2000, unit derated due to intake air chiller trouble
- September 29 @ 1658 1800, unit trip due to rundown tank low oil level

Pooling & Portfolio Planning & Forecasting

- Actual NCPA Pool load of 206.9 GWh in September was 102% of the pre-month forecast of 203.5 GWh due to the early-month heat wave-associated high demand. Pool load, running 67.1 GWh through October 11, may reach the forecast of 197.1 GWh with mixed above- and below-normal temperatures forecasted.
- The Lodi Energy Center (LEC) generated 16,835 MWh for the pool in September, far above the 10,299 MWh forecast - which included the significant drop in local transport rates. Once again, high temperatures kept implied heat rates well above the norm. For October, the pool's share of LEC generation is forecasted at 9,284 MWh and had already reached 7,760 MWh by October 11.
- For the month of September, 0.36" of rain was recorded at Big Trees gage. With the rainy season concluded, total precipitation for the year at 99.76 inches was 178% of the historic water year average.
- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) has been increased to \$50/MWh from a previous value of \$35/MWh.
- NSMR storage as of September 30 was at 99,291 acre feet. The historical average NSMR storage at the end of September is 103,816 acre feet. As of October 17, NSMR storage is 93,686 acre feet. The NCPA Pool share of NSMR storage is 47,530 acre feet.
- Combined Calaveras Project generation for the Pool in September totaled 21.0 GWh, down from 32.8 GWh in August. The Pool's 21.0 MWh in September was more than the pre-month forecast of 14.8 GWh. Through October 17, Calaveras generation for the Pool is 5.1 GWh, near the month forecast of 12.5 GWh.
- Western Base Resource (BR) Pool delivery in September was 57 GWh, compared to the forecast of 67.2 GWh. Through October 11, BR pool allocations of 18.4 GWh (3.7 GWh Displacement) may meet the 32.3-GWh October forecast.
- The PG&E City-Gate gas index traded at \$3.13/MMBtu for October 12 delivery compared to an average of \$3.29/MMBtu (and a high of \$3.40/MMBtu) during September. High temperatures increased prices early in September, but prices have declined as temperatures moderate. The PG&E October Bidweek price was \$3.17, down 17 cents from September's, and daily Platt's prices have been averaging in that lower range recently as demand declines into shoulder season.
- Day-ahead HLH (on-peak) NP15 electricity remains low on average with highest prices occurring on days with highest load and least wind and low prices approaching zero on Sundays. The HLH and LLH day-ahead average LMPs for Thursday, October 18 delivery were \$34.81 and \$28.36/MWh, respectively.

		NC	PA Pool Lo	ads & R	esources Value	Summary				
	Peak and Energy Summary Sep-17					duction Costs	Cost of Serving Demand			
	Coincident Peak (MW)	Total MWh	Forecast Values	Avg. MW	NCPA	A Pool				
	Sep-01-17 Hour 17				Cost/Revenue (Estimate)	Variable Cost (\$/MWh)	Totals	Avg (\$/MWh)		
Demand	485.8	206,930	203,525	287.4	N/A	N/A				
							at Market	Clearing Price		
WAPA	-	57,011	67,285	79.2	\$ 1,979,032	\$ 34.71	\$ 9,326,439	\$ 45.07		
Geothermal	-	27,496	27,659	38.2	522,419	19.00				
Hydro	-	21,117	14,529	29.3	126,701	6.00				
Stig & CTs	-	2,148	2,599	3.0	113,291	52.74	at Variable Cos	of Pool Generation		
LEC	-	16,835	10,299	23.4	583,324	34.65				
Contracts	295.8	71,997	91,558	100.0	4,685,644	65.08	\$ 8,431,156	\$ 40.74		
Market - Net	190.0	10,327	(10,404)	14.3	423,964.84	41.06				
(Net Sales = Negative)						\				
Net Total	485.8	206,930	203,525	287.4	\$ 8,434,377	\$ 40.74				

			Mont	hly M	arket S	Summary	/							
				Avg Variable Forward Prices (EOX NP15 HLH Ask Prices) Cost of Pool			HLH A	sk Prices)	NOTES TO SUMMARY TABLE:					
	Pool Energy	HL	H Avg MCP	Gene	eration		NP15 9/1/2017	10/12/	2017 (\$/MWh)					
	(MWh)		(\$/MWh)	(\$/N	/IWh)		(\$/MWh)			Peak and Energy Summary:				
Jan-17	205,675	\$	36.58	\$	23.70	Oct-17	\$ 39.96	\$	39.23	* Monthly generation summary of Coincidental Peak (hour in which pool demand peaked),				
Feb-17	178,642	\$	30.61	\$	24.41	Nov-17	38.14		39.45	total MWH for the month, and pre-month forecasted values for report period.				
Mar-17	192,408	\$	23.37	\$	25.43	Dec-17	39.37		40.02	* Generation totals are for POOL SHARE of the projects.				
Apr-17	179,239	\$	23.39	\$	31.47	Q1 2018	\$ 36.92	\$	37.36	* Hydro totals include Collierville and Spicer generation.				
May-17	195,573	\$	31.70	\$	26.86	Q2 2018	30.69		31.42	Estimated Production Costs:				
Jun-17	206,429	\$	38.62	\$	34.25	Q3 2018	39.61		40.07	* Fixed project costs not included except for WAPA, where total month's project costs				
Jul-17	221,169	\$	39.42	\$	36.21	CY2018	\$ 36.17	\$	37.03	are used to calculate the average unit cost.				
Aug-17	223,320	\$	51.70	\$	37.30	CY2019	36.20		37.44	 STIG and CT costs include forward natural gas and basis hedge transactions. 				
Sep-17	206,930	\$	45.07	\$	40.74	CY2020	37.54		38.53	* STIG & CT costs reflect \$2.60 and \$1.62/MWH variable O&M costs per 6-12-06 GSCA.				
Oct-17	Í					CY2021	39.20		40.12	Cost of Serving Demand:				
Nov-17	Í					CY2022	41.12		41.84	Compares price of meeting total monthly demand with (1) Hourly pool market clearing price;				
Dec-17						CY2023	42.66		43.01	(2) Variable cost of pool gen. Pool Gen is sum of estimated costs divided by sum of generation				



Industry Restructuring, Contracts and Interconnection Affairs

Resource Adequacy Compliance Filings

- NCPA made the following Resource Adequacy compliance filings with the CAISO for the compliance period December 2017:
 - Monthly System Resource Adequacy Demonstration (filed October 17, 2017)
 - Monthly Supply Plan (filed October 17, 2017)

Industry Restructuring

NCPA is actively participating in a number of CAISO stakeholder initiatives on behalf of the members. The following is a brief description of the current active initiatives:

Commitment Costs and Bidding Enhancements

 Through this initiative the CAISO will evaluate the following two topics: (1) if commitment proxy costs, generated bids, and default energy bids allow scheduling coordinators to accurately reflect and recover their generators' unit-specific costs; and (2) if changes to the economic bidding of commitment costs and associated market power mitigation methodology could increase market benefits when bidding under competitive market dynamics.

Bid Cost Recovery Enhancements

• In this initiative CAISO is evaluating changes to the way IFM and Real-Time Market Bid Cost Recovery (BCR) costs are allocated to market participants. More specifically, CAISO is evaluating if the Self-Scheduling offset currently incorporated into the IFM BCR should be removed, and if Real-Time Market BCR costs should be allocated using a two (2) tier mechanism. As a market participant who is exposed to BCR costs, NCPA has an interest in this stakeholder process; therefore, NCPA will closely monitor the development of this initiative.

Review of TAC Structure

• As described in the CAISO 2017 Stakeholder Initiative Catalog, during calendar year 2017 the CAISO will conduct a stakeholder initiative process to consider possible changes to the structure of the Transmission Access Charge (TAC). The CAISO currently charges the TAC to each MWh of metered internal end-use load (i.e., Gross Load) and exports, to recover participating transmission owners' costs of owning, operating and maintaining transmission facilities under CAISO operational control. Included in the initiative scope will be questions such as: (1) whether the current purely volumetric TAC rate structure should be retained, or should be changed to include other factors such as peak demand; and (2) whether the billing determinant for internal load should be modified to account for the load that is offset by the energy output of Distributed Energy Resources (DER).

Western Base Resource Tracking (NCPA Pool)

Western

		W	estern Bas	e Resource Tra	cking - NCP	A Pool	
		Actual			Costs 8	k Rates	
	BR			Base Resource &	Monthly Cost	CAISO LMP	12-Mo Rolling
	Forecast ¹	BR Delivered	Difference	Restoration Fund	of BR ²	Differential ³	Avg. Cost of BR ⁴
	(MWh)	(MWh)	(MWh)	(\$)	(\$/MWh)	(\$/MWh)	(\$/MWh)
Jul-1	71,656	82,819	11,163	\$2,334,679	\$ 28.19	\$ 1.60	\$ 27.59
Aug-1	7 55,736	79,371	23,635	\$2,334,679	\$ 29.41	\$ 0.08	\$ 27.14
Sep-1	7 56,044	57,011	967	\$1,979,032	\$ 34.71	\$ 0.12	\$ 26.27
Oct-1	7 33,604	-	(33,604)	\$833,923	\$ 24.82	\$ 0.10	\$ 25.41
Nov-1	7 19,601	-	(19,601)	\$833,923	\$ 42.55	\$ 0.10	\$ 24.68
Dec-1	7 15,404	-	(15,404)	\$833,923	\$ 54.14	\$ 0.10	\$ 24.49
Jan-1	7,358	-	(7,358)	\$833,923	\$ 113.34	\$ 0.10	\$ 26.24
Feb-1	13,359	-	(13,359)	\$833,923	\$ 62.42	\$ 0.10	\$ 28.50
Mar-1	30,216	-	(30,216)	\$833,923	\$ 27.60	\$ 0.10	\$ 30.08
Apr-1	50,443	-	(50,443)	\$2,035,038	\$ 40.34	\$ 0.10	\$ 31.04
May-1	66,832	-	(66,832)	\$2,035,038	\$ 30.45	\$ 0.10	\$ 33.40
Jun-1	74,030	-	(74,030)	\$2,035,038	\$ 27.49	\$ 0.10	\$ 33.84
1	/ As forecaste	d in NCPA 17/1	8 Budget				
2	/ = (Western C	ost + Restorati	on Fund)/BR [Delivered, for Pool I	Participants onl	y.	
3	/ = (MEEA LMF	P - PG&E LAP LI	MP) using publ	ic market informati	on (i.e. not set	tlement quality).
4	/ Based on BR impact.	Delivered (Act	ual) when avai	lable and BR Forec	ast in all other	cases. Includes	CAISO LMP

- The Displacement Program continued its strong performance for Pool Members with September activity of 17,675 MWhs for an estimated savings of \$158,000, or nearly \$9/MWh. The program has saved Pool Members over \$850,000 in FY18 (Jul-Sep).
- Estimated savings from MEEA pricing is \$88,000 for FY18.

Debt and Financial Management

- At the conclusion of its September meeting, the Federal Open Market Committee (FOMC) announced balance sheet tapering would begin in October and the pace of tapering will follow the schedule provided previously. The widely expected announcement elicited little market reaction but Committee members also provided guidance that seemed to favor a December rate hike.
- Interest rates rose across all maturities as the market responded to continued growth in the U.S. economy, the Fed's indication that more rate hikes are coming, and the potential economic boost from tax reform. The yield on two-year Treasury notes rose 16 basis points (bps) to 1.49%, its highest level since 2008. The yield on 10-year Treasury notes rose 21 bps to 2.33%, its steepest monthly increase of the year, but the current level is still short of peak yields in early 2017.
- Federal Reserve Chair Janet Yellen's term expires early next year, creating uncertainty around future Fed leadership. Additionally, Vice Chair Stanley Fischer ended his term prematurely. Changes in the makeup of the Fed could alter the future direction of monetary policy, which could roil markets. Still, we expect a modest, gradual uptrend in interest rates to continue.
- On October 10, 2017, Moody's Investor Services upgraded two of NCPA's projects and on October 16th, affirmed the ratings on three other projects. The Moody's rating committee decided to:
 - Upgrade the rating on NCPA's Hydroelectric Revenue Bonds to Aa3 from A1.
 The rating outlook is stable.
 - Upgrade the rating on NCPA's Indenture Group A (Issue One) Lodi Energy Center (LEC) Revenue Bonds to A1 from A2. The rating outlook is stable.
 - o Affirm the A1 rating on NCPA's Geothermal Project with a stable outlook.
 - o Affirm the A2 rating on NCPA's Capital Facilities Project with a stable outlook.
 - Affirm the Aa2 rating on NCPA's Indenture Group B Lodi Energy Center (LEC) with a stable outlook.
- With a new financial advisory contract signed, staff will begin working closely with Public Financial Management (PFM) Financial Advisors in preparing an RFP for underwriting (UW) services to refund the 2008 Hydroelectric bonds, Series C.

Schedule Coordination Goals

Software Development

- The configuration of Scheduling software is underway for the PCWA project under the MFP1 SCID.
- Santa Clara/SVP successfully went live with the scheduling of their SNCL SCID portfolio using the NCPA Scheduling Suite. The very first schedule was for the 09/30/2017 Operating Date.
- Information Services staff continues to work on the new Interval Reading schema to replace the legacy Meter schema. This project will last several months to complete

the migration of the existing data and to redirect the applications to use the new model. The target is to finish by the end of 2017.

• Various other Software Development is underway. The NERC-WECC Compliance Matrix is a tool to aid the Compliance Working Group to track standards compliance. The Risk Management App is a tool for the Risk Manager to maintain counterparty credits and ratings and provides Mark-to-Market report to the business users. The Green House Gas Accounting App is a tool for the business user to track GHG transactions by Member. The Shared Services App has three modules about Training, Support Service, and Vendor Contract. It calculates the billable amount for the Member's portion of the Shared Services.

Network

- Additional collaboration sites are being created to expand the functionality of the Agency's new extranet, "NCPA Connect." This will provide further capabilities to share and edit documents for specific working groups and committees.
- Additional 56k circuit upgrades to T1 at Portola, Ukiah and the Disaster Recovery Center are expected to be completed within the next couple of months.
- Work has begun on streamlining the meetings workflow process using SharePoint to assist in preparing documents and presentations for a variety of NCPA committees.
 Information Services is anticipating to begin testing sometime in November with a first-of-the-year rollout into production.
- Information Services continues to work alongside Generation Services to help expand their physical security presence at the plant locations. This includes diagramming, installing and configuring network switches in preparation for security devices.
- PCWA network and point testing continues to move forward as we prepare for a January 1st cutover date.
- NCPA is researching the capability to use digital signatures for internal document approvals. This will help to streamline the current process and cut back on the amount of time it takes to approve document requests.
- Information Services is planning to hire student interns to assist in providing additional coverage for help desk related responsibilities. This will allow them to gain some experience in technical support while freeing up existing computer analysts' time to focus on more infrastructure and networking demands.

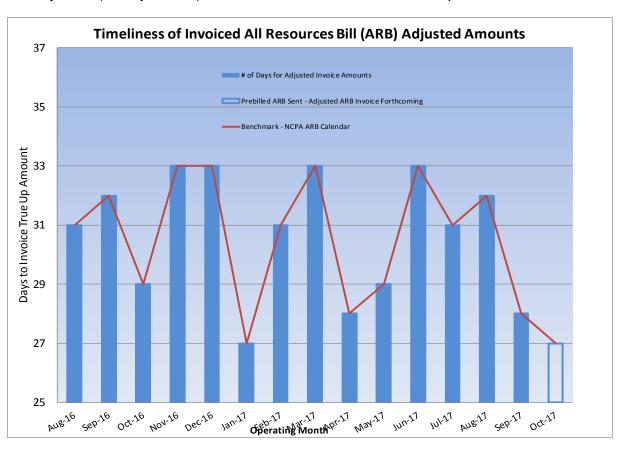
NCPA Bills & Settlements

Progress Against the Strategic Plan

Adjusted Power bills, which include CAISO transactions, invoiced to members the following month subsequent to the monthly pre-billed ARB month. Timely ARB settlements adjustments help improve members' cash flow and reconciliation of their budget performance.

The October 2017 NCPA All Resources Bill (ARB) monthly invoice sent to members on September 25, 2017 contains:

- October 2017 monthly pre-billed budget/forecast amounts;
- August 2017 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;
- July 2017 (2nd Adjustment) NCPA Project settlement true-up and T+12 business day recalculated CAISO settlement true-up allocations;
- May 2017 (3rd Adjustment) T+55 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;
- November 2016 (4th Adjustment) T+9 month recalculated CAISO settlement true-up allocations;
- January 2016 (5th Adjustment) T+18 month recalculated CAISO settlement true-up allocations;
- July 2014 (6th Adjustment) T+35 month CAISO settlement true-up



Legislative & Regulatory

Political Arena State/Federal/Western Programs

- NCPA submitted comments to the Bureau of Reclamation regarding its proposed FY2018 Central Valley Project Improvement Act (CVPIA) Work Plan. With the overarching goal for implementation of mitigation projects to be consistent with CVPIA's legislative intent, NCPA suggested that the Work Plan have actual measurable biological results; clear accounting expenditures that identify the major sources (i.e. water, power, state contributions or others); a transparent accounting of water purchase costs (\$/per acre foot); and the names of the willing sellers; and, an explanation or rationale for the proposed Yuba River activities.
- NCPA joined over 300 public power entities in signing onto the American Public Power Association's letter in support of tax-exempt municipal bonds. The letter was sent to six Administration and congressional authors of the 15-page framework for tax reform entitled the "Unified Framework for Fixing our Broken Tax Code." The letter thanks them for retaining the tax-exemption for municipal bonds in that framework, while explaining the importance of the exemption for public power utilities and our customers, and estimates the cost of losing the exemption (\$4.5 billion annually).

Human Resources

<u>Hires:</u>

Cheryl Bolt joined NCPA on September 14, 2017, as an Office Assistant I at the Headquarters office in Roseville, CA. Cheryl has over 32 year of experience in the administrative and customer service field.

Willard Hurst joined NCPA on October 2, 2017, as a Mechanic Operator III at the Geothermal Facilities in Middletown, CA. Will has over 18 years of experience in the power industry.

Sara Green joined NCPA on October 11, 2017, as an Administrative Assistant/Office Administrator III at the Geothermal Facilities in Middletown, CA. Sara has over 17 years of administrative, contract, payroll and accounts payable experience.

Intern Hires:

None.

Promotions/Position Changes:

None.

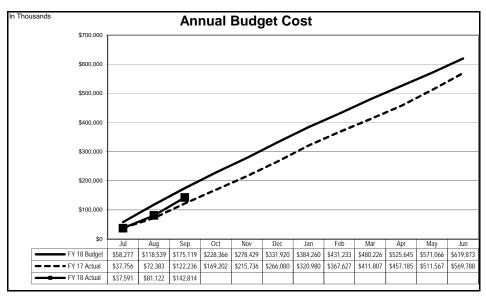
Separations:

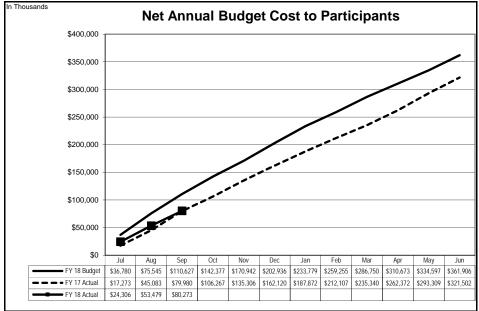
Clay Ames, Operator Technician-Lead Person, retired from his position at the Geothermal Facilities after 32 years of service.

Jeremy Wilson, Technician Operator V, retired from his position at the Geothermal Facilities after 32 years of service.

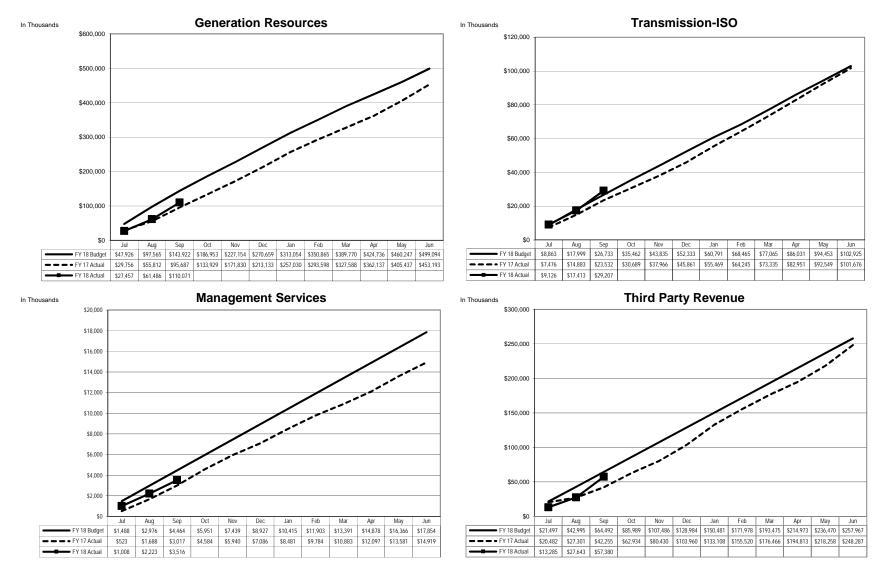
Annual Budget 2017-2018 Fiscal Year To Date As of September 30, 2017

In Thousands		Progra	m	
	Annual		Under(Ovr)	YTD %
GENERATION RESOURCES	Budget	Actual	Budget	Remaining
NCPA Plants				
Hydroelectric	53,862	13,595	\$ 40,267	75%
Geothermal Plant	32,120	7,382	24,738	77%
Combustion Turbine No. 1	2,849	1,471	1,377	48%
Combustion Turbine No. 2 (STIG)	8,623	2,470	6,152	71%
Lodi Energy Center	61,088	17,516	43,573	71%
	158,542	42,434	116,108	73%
Member Resources - Energy	53,389	15,335	38,054	71%
Member Resources - Natural Gas	3,457	901	2,556	74%
Western Resource	30,120	6,658	23,462	78%
Market Power Purchases	19,318	4,999	14,319	74%
Load Aggregation Costs - ISO	233,822	39,588	194,234	83%
Net GHG Obligations	446	175	271	61%
	499,094	110,091	389,003	78%
<u>TRANSMISSION</u>				
Independent System Operator	102,925	29,207	73,718	72%
MANAGEMENT SERVICES				
Legislative & Regulatory				
Legislative Representation	1,976	486	1,490	75%
Regulatory Representation	838	155	683	81%
Western Representation	830	113	717	86%
Member Services	436	86	351	80%
	4,079	840	3,240	79%
Judicial Action	625	30	595	95%
Power Management	023	30	333	3370
System Control & Load Dispatch	5.864	1.382	4.482	76%
Forecasting & Prescheduling	2,647	574	2,073	78%
Industry Restructuring	424	75	349	82%
Contract Admin, Interconnection Svcs & Ext. Affairs	1,152	221	931	81%
Green Power Project	18	1	17	97%
Gas Purchase Program	88	15	73	83%
Market Purchase Project	130	22	108	83%
Warket Fulchase Floject	10,323	2,290	8,033	78%
Energy Risk Management	10,323	2,290	,	78% 87%
Settlements			180	
Integrated System Support	774	138	636 276	82%
Participant Pass Through Costs	319	43	-	87%
Support Services	1,526	118	1,408	92%
oupport dervices	47.054	30	(30)	N/A
	17,854	3,516	14,338	80%
TOTAL ANNUAL BUDGET COST	619,872	142,814	477,059	77%
LESS: THIRD PARTY REVENUE				
Plant ISO Energy Sales	70,367	35,203	35,164	50%
Load Aggregation Energy Sales	151,019	18.054	132,965	88%
Ancillary Services Sales	2,731	742	1,990	73%
Western Resource Energy Sales	18,026	3,500	14,526	81%
Other ISO Revenue	-	1,661	(1,661)	N/A
Transmission Sales	110	28	(1,001)	75%
Western Credits, Interest & Other Income	15.713	3.353	12,360	79%
Transfer a delici modilo	257,967	62,541	195,426	76%
	201,001	02,041	100,420	. 0,0
NET ANNUAL BUDGET COST TO PARTICIPANTS	361,906	80,273	\$ 281,633	78%
		,0		



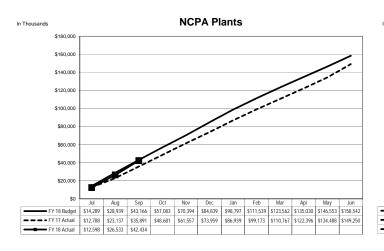


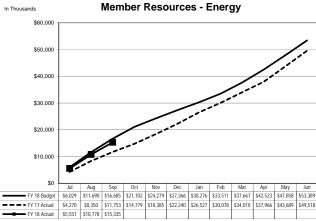
Annual Budget
Budget vs. Actual By Major Area
2017-2018 Fiscal Year To Date
As of September 30, 2017

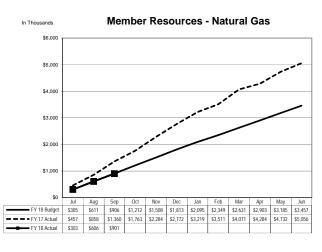


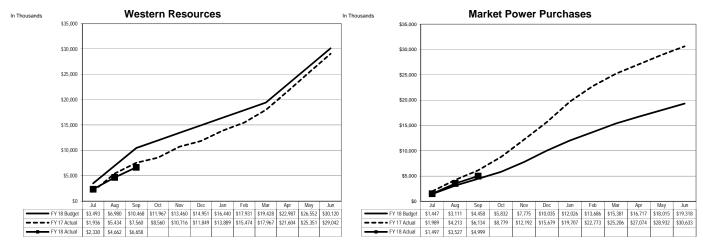
Footnote: Transmission is solely reflective of Independent System Operator (ISO) costs

Annual Budget Cost Generation Resources Analysis By Source 2017-2018 Fiscal Year To Date As of September 30, 2017



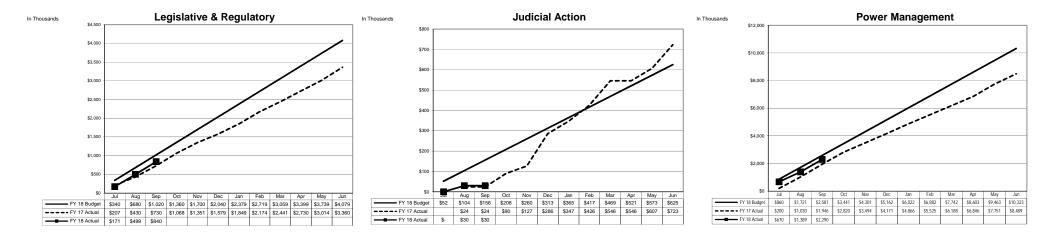


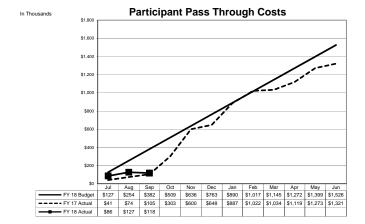




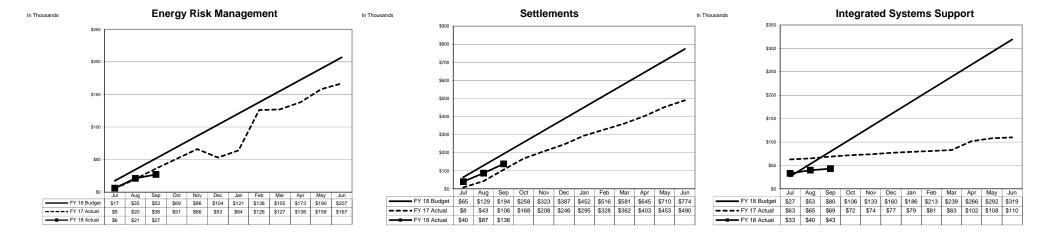
Footnote: Other Resources (Graeagle, BART PV, Gridley PV) are included in Market Power Purchases

Annual Budget Cost Management Services Analysis By Source 2017-2018 Fiscal Year To Date As of September 30, 2017

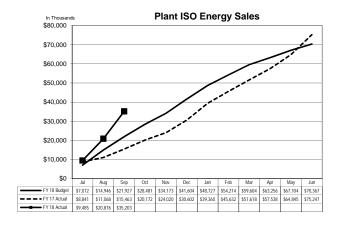


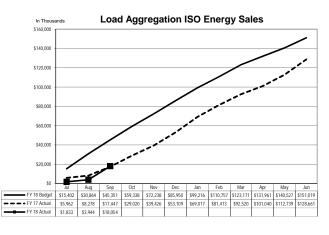


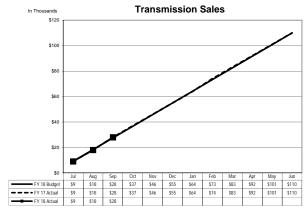
Annual Budget Cost Management Services Analysis By Source 2017-2018 Fiscal Year To Date As of September 30, 2017

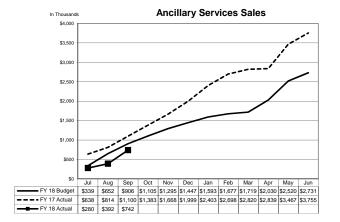


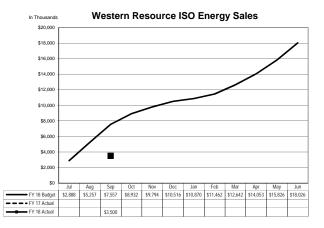
Annual Budget Cost Third Party Revenue Analysis By Source 2017-2018 Fiscal Year To Date As of September 30, 2017

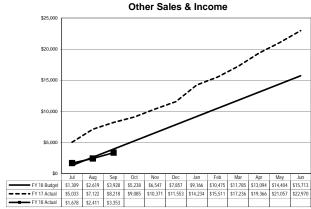












Annual Budget NCPA Generation Detail Analysis By Plant 2017-2018 Fiscal Year To Date As of September 30, 2017

Generation Cost Analysis

\$ in thousands

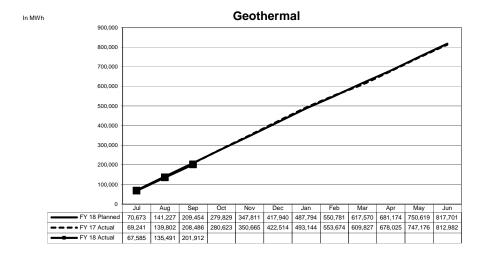
				Ged	othermal			
					\$/MWh	U	nder(Ovr)	YTD %
	E	Budget	Actual		Actual		Budget	Remaining
Routine O & M	\$	17,564	\$ 3,918	\$	19.41	\$	13,646	78%
Capital Assets/Spare Parts Inventories		1,440	237		1.17		1,203	84%
Other Costs		7,863	1,861		9.22		6,001	76%
CA ISO Charges		317	132		0.65		185	58%
Debt Service		4,936	1,234		6.11		3,702	75%
Annual Budget		32,120	7,382		36.56		24,738	77%
Less: Third Party Revenue								
Interest Income		148	56		0.28		92	62%
ISO Energy Sales		28,349	8,216		40.69		20,133	71%
Ancillary Services Sales		-	(4)		(0.02)		4	
Effluent Revenues		700	430		2.13		270	39%
Misc		110	30		0.15		81	
		29,307	8,727		43.22		20,580	70%
Net Annual Budget Cost to Participants	\$	2,813	\$ (1,345)	\$	(6.66)	\$	4,157	148%
Net GenerationMWh @ Meter		817,701	201,912					
\$/MWh (A)	\$	(2.60)	\$ (12.77)	1				

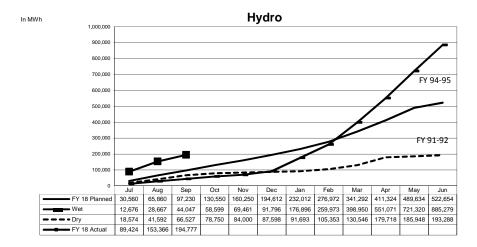
			Ну	droelectric	;		
			Ĺ	\$/MWh	ι	Jnder(Ovr)	YTD %
	Budget	Actual		Actual		Budget	Remaining
Routine O & M	\$ 8,465	\$ 1,423	\$	7.31	\$	7,042	83%
Capital Assets/Spare Parts Inventories	2,365	1,072		5.50		1,293	55%
Other Costs	3,093	642		3.30		2,451	79%
CA ISO Charges	1,680	894		4.59		787	47%
Debt Service	38,258	9,565		49.11		28,694	75%
Annual Budget	53,862	13,595		69.80		40,267	75%
Less: Third Party Revenue							
Interest Income	244	88		0.45		157	64%
ISO Energy Sales	22,050	11,506		59.07		10,544	48%
Ancillary Services Sales	2,222	467		2.40		1,755	79%
Misc		1		0.01		(1)	
	24,516	12,062		61.93		12,454	51%
Net Annual Budget Cost to Participants	\$ 29,346	\$ 1,533	\$	7.87	\$	27,813	95%
Net GenerationMWh @ Meter	522,654	194,777					
\$/MWh (A)	\$ (17.05)	\$ (41.23)					

Footnotes:

(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

MWhs Generated





Annual Budget NCPA Generation Detail Analysis By Plant 2017-2018 Fiscal Year To Date As of September 30, 2017

Generation Cost Analysis

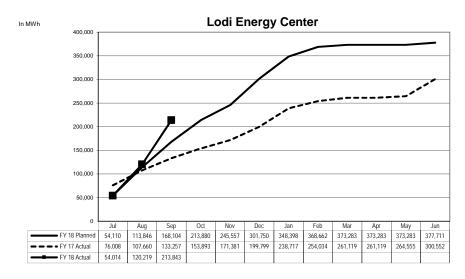
			Loc	di E	nergy Cei	nte	r	
		\$/MWh		\$/MWh	Under(Ovr)		YTD %	
	Budget		Actual		Actual		Budget	Remaining
Routine O & M	\$ 10,174	\$	2,196	\$	10.27	\$	7,978	78%
Fuel	14,877		6,021		28.16		8,856	60%
AB 32 GHG Offset	-		-		-		-	
CA ISO Charges and Energy Purchases	3,921		1,656		7.74		2,265	58%
Capital Assets/Spare Parts Inventories	2,636		508		2.38		2,128	81%
Other Costs	3,063		530		2.48		2,533	83%
Debt Service	26,417		6,604		30.88		19,812	75%
Annual Budget	61,088		17,516		81.91		43,573	71%
Less: Third Party Revenue								
Interest Income	172		77		0.36		95	55%
ISO Energy Sales	19,760		13,534		63.29		6,226	32%
Ancillary Services Sales	397		229		1.07		168	42%
Transfer Gas Credit	-		-		-		-	0%
Misc	-		0		0.00		(0)	0%
	20,329		13,840		64.72		6,489	32%
Net Annual Budget Cost to Participants	\$ 40,759	\$	3,675	\$	17.19	\$	37,084	91%
Net GenerationMWh @ Meter	377,711		213,843					
\$/MWh (A)	\$ 37.97	\$	(13.70)					

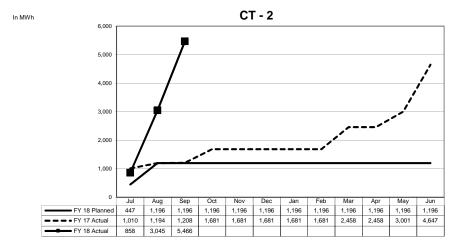
		(Combustic	on	Turbine N	о.	2 (STIG)	
					\$/MWh	-	Under(Ovr)	YTD %
	Budget		Actual		Actual		Budget	Remaining
Routine O & M	\$ 1,471	\$	360	\$	65.78	\$	1,111	76%
Fuel and Pipeline Transport Charges	835		303		55.39		532	64%
Capital Assets/Spare Parts Inventories	121		-		-		121	100%
Other Costs	502		110		20.04		393	78%
CA ISO Charges	0		275		50.34		(275)	-59334%
Debt Service	5,693		1,423		260.36		4,270	75%
Annual Budget	8,623		2,470		451.91		6,152	71%
Less: Third Party Revenue								
Interest Income	43		17		3.08		26	61%
ISO Energy Sales	89		811		148.32		(722)	-813%
Ancillary Service Sales	-		0		0.00		(0)	0%
Fuel and Pipeline Transport Credits	864		312		57.01		553	64%
Misc	-		-		-		-	0%
	996		1,139		208.41		(143)	-14%
Net Annual Budget Cost to Participants	\$ 7,627	\$	1,331	\$	243.50	\$	6,296	83%
							·	
Net GenerationMWh @ Meter	1,196		5,466					
\$/MWh (A)	\$ 1,616.78	\$	(16.86)					

Footnotes:

(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

MWhs Generated





Annual Budget NCPA Generation Detail Analysis By Plant 2017-2018 Fiscal Year To Date As of September 30, 2017

Generation Cost Analysis

		Combu	ısti	ion Turbin	e N	lo. 1	
				\$/MWh	U	Inder(Ovr)	YTD %
	Budget	Actual		Actual		Budget	Remaining
Routine O & M	\$ 1,520	\$ 593	\$	93.13	\$	927	61%
Fuel and Pipeline Transport Charges	172	-		-		172	100%
Capital Assets/Spare Parts Inventories	642	100		15.71		542	84%
Other Costs	292	490		76.96		(197)	-68%
CA ISO Charges	1	289		45.35		(288)	-49075%
Debt Service	-	-				-	
Annual Budget	2,627	1,471		231.15		1,156	44%
Less: Third Party Revenue							
Interest Income	-	-				-	
ISO Energy Sales	119	1,135		178.40		(1,016)	0%
Ancillary Services Sales	-	0		0.00		(0)	0%
Misc	-	16		2.46		(16)	0%
	119	1,151		180.85		(1,032)	-867%
Net Annual Budget Cost to Participants	\$ 2,508	\$ 320	\$	50.30	\$	2,188	87%
							_
Net GenerationMWh @ Meter	1,514	6,365					
\$/MWh (A)	\$ 1,656.50	\$ 50.30					

Footnotes:

(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

MWhs Generated

