



BUSINESS PROGRESS REPORT

March 2017

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Generation Costs & Reliability

Combustion Turbine Project

Availability/Production for February

Unit	Availability		Production		Reason for Run
CT1 Alameda	Unit 1	Unit 2	Unit 1	0.0 MWHr	/
	100.00%	100.00%	Unit 2	0.0	
Curtailments & Outages			/		
CT1 Lodi	100.00%		194.9 MWHr		Air Compliance Test
Curtailments & Outages			0		
CT2 STIG	100.00%		0.0 MWHr		0
Curtailments & Outages			0		
LEC	99.55%		0.0 MWHr		CAISO
Curtailments & Outages			2/24/17 (3 Hours) - Inlet Guide Vanes (IGVs) demand versus position error.		

Maintenance Summary – Specific per asset above.

Geothermal Facilities

Availability/Production for February

Unit	Availability	Net Electricity Generated/Water Delivered	Out-of-Service/Descriptors
Unit 1	93.45 %	16,417 MWh	Unit 1 had one outage for the month. The unit was removed from service for a scheduled outage on 2/27 at 0400 for a PG&E line outage. While down, other miscellaneous work was completed such as Stretford system cleaning & electrical trip test. The unit remains out of service for the rest of the month and is scheduled to return to service on 3/3/17
Unit 2	93.45 %	16,460 MWh	Unit 2 had one outage for the month. The unit was removed from service for a scheduled outage on 2/27 at 0400 for a PG&E line outage. While down, other miscellaneous work was completed such as Stretford system cleaning & electrical trip test. The unit remains out of service for the rest of the month and is scheduled to return to service on 3/3/17
Unit 3	N/A %	N/A	Unit 3 remains out of service for the month of February.
Unit 4	98.70 %	27,658 MWh	Unit 4 had one outage for the month. The unit tripped on 2/24 at 2320 on low vacuum due to a vacuum pump trip. The vacuum pump trouble was corrected and the unit was placed back in service on 2/25 at 0800. The unit was off line for 8.75 hours.
Southeast Geysers Effluent Pipeline	99.7 %	214.6 mgallons	Average flow rate: 5,477.6 gpm
Southeast Solar Plant	N/A	46,830 KWh	Year-to-date KWh: 89,718
Bear Canyon Pump Station Zero Solar	N/A	81,460 KWh	Year-to-date KWh: 160,274

Hydroelectric Project - Availability/Production for February

Units	Availability	Net Electricity Generated	Out-of-Service
Collierville Unit 1	79.33 %	57,242 MWh	CV #1 unit was out of service on 02/07/17 at 0923 through 02/11/17 at 1629 due to high tail water level. CV #1 unit was out of service on 02/11/17 at 2053 through 2204 due to high tail water level. CV #1 unit was out of service on 02/12/17 at 1126 through 1142 due to high tail water level. CV #1 unit was out of service on 02/20/17 at 1412 through 02/22/17 at 0030 due to high tail water level.
Collierville Unit 2	79.96 %	57,929 MWh	CV #2 unit was out of service on 02/07/17 at 1001 through 02/11/17 at 1531 due to high tail water level. CV #2 unit was out of service on 02/20/17 at 1544 through 02/22/17 at 0053 due to high tail water level.
Spicer Unit 1	80.16 %	1,029 MWh	NSM #1 unit was out of service on 02/06/17 at 1434 through 02/08/17 at 1829 due to transfer trip comm. trouble/failed start. NSM #1 unit was out of service on 02/08/17 at 1829 through 02/11/17 at 2043 due to PG&E line outage. NSM #1 unit was out of service on 02/20/17 at 0852 through 0922 due to transfer trip comm. trouble. NSM #1 unit was out of service on 02/27/17 at 1024 through 1704 due to transfer trip comm. trouble.
Spicer Unit 2	88.30 %	1,060 MWh	NSM #2 unit was out of service on 02/06/17 at 1434 through 1500 due to transfer trip comm. trouble. NSM #2 unit was out of service on 02/08/17 at 1829 through 02/11/17 at 2043 due to PG&E line outage. NSM #2 unit was out of service on 02/20/17 at 0852 through 0922 due to transfer trip comm. trouble. NSM #2 unit was out of service on 02/27/17 at 1023 through 1351 due to transfer trip comm. trouble.
Spicer Unit 3	62.83 %	182 MWh	NSM #3 unit was out of service on 02/06/17 at 1434 through 02/08/17 at 1829 due to transfer trip comm. trouble. NSM #3 unit was out of service on 02/08/17 at 1829 through 02/13/17 at 1153 due to PG&E line outage. NSM #3 unit was out of service on 02/20/17 at 0852 through 02/23/17 at 1445 due to transfer trip comm. trouble. NSM #3 unit was out of service on 02/27/17 at 1024 through 1700 due to transfer trip comm. trouble.

Operations & Maintenance Activities:

- Monthly CMMS work orders
- Winter Storm response
- Mckays landslide daily monitoring and weekly instrumentation readings
- Project road repairs and slide removals

Environmental, Health & Safety (EH&S) Projects

Incident Reports

- There were no vehicle accidents and no recordable incidents that occurred in February. There was one lost time accident that occurred on January 24, 2017 as a result of a previous work injury.

Note: Since the January report reflected results posted through pay period ending January 21, 2017 and the lost time accident occurred on January 24, the incident is being reported on this month's report.

- 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 February 18, 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.

February Generation Services Safety 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	794	41	684	5,752
Work Hours Since Last Recordable	67,311	7,907	100,715	2,069,094
LTA's (this month)	0	1	0	0
LTA's (calendar year)	0	1	0	0
Days without LTA	3,410	25	8,588	4,681
Work Hours without LTA	312,876	5,002	542,079	1,691,114
Vehicle Incident (month)	0	0	0	0
Vehicle Incident (calendar year)	0	0	1	0

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

** NCPA HQ: Roseville employees at the Main Office

Data originates from OSHA logs, HR records and payroll information.
Days and Hours are calculated through pay period ended February 18, 2017.

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

	February 2017		Calendar Year 2017	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	333.38 2/1 @1900	178,650	351.61 1/18 @1800	384,323
SVP	459.86 2/2 @1500	275,073	459.86 2/2 @1500	576,018
MSSA	777.44 2/1 @ 1900	453,723	788.11 1/10 @ 1800	960,341

Last Year 2016 Data*

	February 2016		Calendar Year 2016	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	332.93 2/3 @1900	179,772	449.75 7/27 @1700	378,938
SVP	452.77 2/16 @ 1600	273,761	534.21 9/26 @ 1700	562,965
MSSA	762.14 2/16 @ 1900	453,533	968.73 7/27 @ 1600	941,903

*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 7/24/2006 @ 1500	351.61 1/18 @1800
SVP	534.21 MW on 9/26/16 @ 1700	459.86 2/2 @ 1500
MSSA	988.56 MW on 7/08/2008 @ 1500	788.11 1/10 @ 1800

- 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

	February 2017	Calendar Year 2017
MSSA % Within the Band	99.31%	99.35%

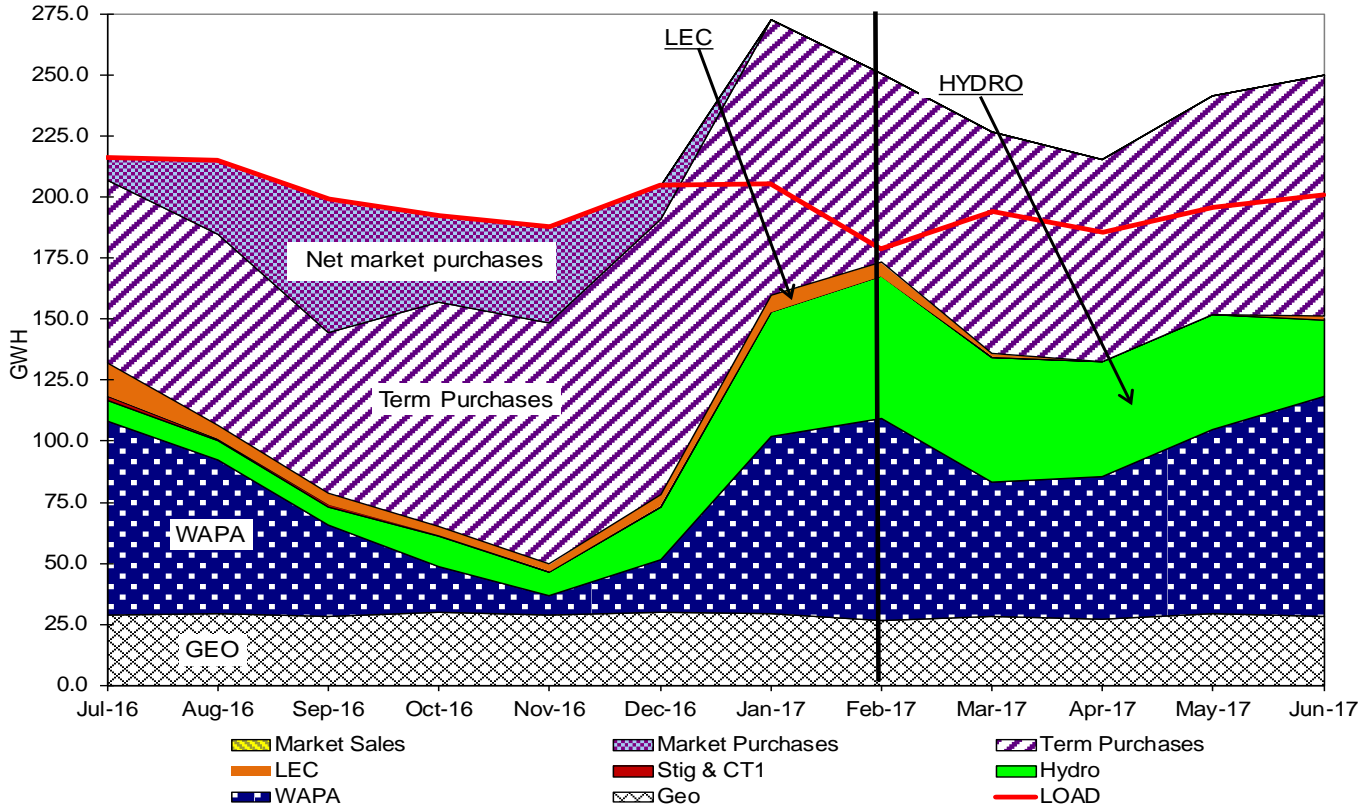
- February 6 @ 2236 – February 13 @ 0930, and February 20 @ 1352 – February 23 @ 0045 McKay's spilled due to high natural flows.
- Peak spill exceeded 13,000cfs on February 8 about 1700
- Spicer Meadows:
 - February 6, all units off line due to transfer trip comm trouble. Unit 1 remained o/s until February 8 due to failed start
 - February 8 – 11, all units off line due to PG&E line outage. Unit 3 remained isolated from the grid until February 13
 - February 20, all units off line due to transfer trip comm trouble. Unit 3 remained isolated from the grid until February 23
 - February 27, all units off line due to transfer trip comm trouble
- Geothermal Units:
 - February 24 @ 2319 – February 25 @ 0759, Unit 4 off line due vacuum pump trouble
 - February 27 @ 0400 – March 3 @ 1343, Unit 1 and 2 off line for PG&E Geysers 9 – Lakeville 230kV line outage & annual maintenance
- Lodi Energy Center:
 - February 22, unit was 15 minutes late turning on AGC control to CAISO
 - February 24, unit start up delayed 2 hours due to faulty IGV position indication
- Alameda CTs:
 - No curtailments
- Lodi CT:
 - February 1, unit unavailable for about 7 hours to replace pressure switch on line breaker CB52L
- Collierville Units:
 - February 2 @ 1000 – 1100, Units 1 & 2 derated for intake trash rack cleaning (tunnel burp)
 - February 6 – 13 and 20 – 22, Units 1 & 2 derated varying amounts due to issues associated with high tail water levels and spill conditions
- STIG:
 - No curtailments

Pooling & Portfolio Planning & Forecasting

- Actual NCPA Pool load of 178.7 GWh in February equaled 99.3% of the pre-month forecast of 179.9 GWh as wet weather continued.
- Pool load, at 74.8 GWh through the 13th is on pace to total 193.2 GWh in March, close to the forecast of 194.2 GWh. Loads at forecast for the month come despite recent warmer March weather.

- The Lodi Energy Center (LEC) generated 2.7 of the forecasted 5.7 GWh in February for the pool as power values in the CAISO markets remained low while gas prices are relatively high. Strong hydro and renewable generation continues.
- For the month of February, 25.87 inches of rain was recorded at Big Trees gage. The February average Big Trees precipitation is 9.31 inches.
- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) has been reduced to \$0/MWh (seeking net positive value between energy and A/S revenues) from \$10/MWh.
- NSMR storage as of February 28 was at 133,009 acre feet. The historical average NSMR storage at the end of February is 75,131 acre feet. As of March 13, NSMR storage is 115,898 acre feet. The NCPA Pool share of NSMR storage is 61,385 acre feet.
- Combined Calaveras Project generation for the Pool in February totaled 58.0 GWh, up from 51.0 GWh in January. The Pool's 58.0 GWh in February was more than the pre-month forecast of 53.3 GWh. Through March 13th, Calaveras generation for the Pool (36.4 GWh) is running near the month's forecast of 73.0 GWh.
- Western Base Resource (BR) Pool delivery Pool in February was 82.9 GWh compared to the forecast of 71.4 GWh. Through March 13, BR pool allocations at 40.0 GWh are already close to the March forecast of 55.1 GWh.
- PG&E City-Gate gas index most recently traded at \$3.22/MMBtu for March 13th delivery - compared to an average of \$3.264/MMBtu with a high of \$3.495/MMBtu for the month of February. Prices rose sharply during December before tapering back but remain volatile. While the PG&E Bidweek price for March gas averaged \$2.99, daily Platt's prices have been running higher despite mild temperatures.
- Day-ahead HLH (on-peak) NP15 electricity remains relatively low on average with spikes occurring on days with highest load. The HLH and LLH day-ahead average LMPs for March 13th delivery were \$36.06 and \$22.74/MWh, respectively.

NCPA POOL RESOURCES 2016-17 FISCAL YEAR: Jul-Feb.17 Actual - bal Forecast



NCPA Pool Loads & Resources Value Summary									
	Peak and Energy Summary Feb-17				Estimated Production Costs		Cost of Serving Demand		
	Coincident Peak (MW) Feb-01-17 Hour 19	Total MWh	Forecast Values	Avg. MW	NCPA Pool		Totals	Avg (\$/MWh)	
Demand	333.4	178,642	179,884	265.8	N/A	N/A			
WAPA	146.0	82,955	71,419	123.4	\$ 953,194	\$ 11.49	\$ 5,467,659	\$ 30.61	
Geothermal	39.2	25,057	26,658	37.3	476,083	19.00			
Hydro	106.4	58,904	53,643	87.7	353,424	6.00			
Stig & CTs	-	112	-	0.2	7,498	66.94			
LEC	-	2,758	5,717	4.1	105,356	38.20			
Contracts	118.6	77,479	93,499	115.3	4,140,926	53.45	\$ 4,361,187	\$ 24.41	
Market - Net (Net Sales = Negative)	(76.8)	(68,623)	(71,052)	(102.1)					
Net Total	333.4	178,642	179,884	265.8	\$ 6,036,480	\$ 24.41			

Monthly Market Summary						
	Pool Energy (MWh)	HLH Avg MCP (\$/MWh)	Avg Variable Cost of Pool Generation (\$/MWh)	Forward Prices (EOX NP15 HLH Ask Prices)		
				NP15 2/1/2017 (\$/MWh)	3/13/2017 (\$/MWh)	
Jul-16	216,062	\$ 36.40	\$ 38.15	Mar-17	\$ 29.93	\$ 24.71
Aug-16	215,007	\$ 37.71	\$ 41.27	Apr-17	27.98	23.98
Sep-16	199,228	\$ 36.67	\$ 45.69	May-17	28.36	25.46
Oct-16	192,514	\$ 35.69	\$ 39.08	Q3 2017	\$ 39.31	\$ 36.93
Nov-16	187,997	\$ 31.67	\$ 39.08	Q4 2017	40.12	38.84
Dec-16	204,678	\$ 38.29	\$ 39.08	Q1 2018	38.88	38.34
Jan-17	205,675	\$ 36.58	\$ 23.70	CY2018	\$ 35.39	\$ 34.42
Feb-17	178,642	\$ 30.61	\$ 24.41	CY2019	35.75	34.95
Mar-17				CY2020	38.40	36.89
Apr-17				CY2021	40.26	39.00
May-17				CY2022	40.81	39.64
Jun-17				CY2023	42.32	41.27

NOTES TO SUMMARY TABLE:

Peak and Energy Summary:
 * Monthly generation summary of Coincidental Peak (hour in which pool demand peaked), total MWh for the month, and pre-month forecasted values for report period.
 * Generation totals are for POOL SHARE of the projects.
 * Hydro totals include Collierville and Spicer generation.

Estimated Production Costs:
 * Fixed project costs not included except for WAPA, where total month's project costs are used to calculate the average unit cost.
 * STIG and CT costs include forward natural gas and basis hedge transactions.
 * STIG & CT costs reflect \$2.60 and \$1.62/MWh variable O&M costs per 6-12-06 GSCA.

Cost of Serving Demand:
 * Compares price of meeting total monthly demand with (1) Hourly pool market clearing price; (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 May 2017:
 - Monthly System Resource Adequacy Demonstration (filed March 17, 2017)
 - Monthly Supply Plan (filed March 17, 2017)

Industry Restructuring

NCPA is actively participating on behalf of the members in the following CAISO stakeholder initiatives:

Commitment Costs and Bidding Enhancements

- This CAISO stakeholder initiative is focused on refining the method used to calculate minimum load and start-up costs (otherwise known as “Commitment Costs”) that are incorporated into a generating facilities Bid. The outcome of this stakeholder initiative will impact how NCPA manages the member resources; therefore, NCPA has a strong interest in this process.

Reliability Services 2

- Through the Reliability Services Initiative 2, CAISO is exploring certain enhancements to the current Resource Adequacy program, including, but not limited to, defining substitution requirements for flexible capacity on planned outages, address RAIM exemptions, separate local and system RA for purposes of forced outage substitution, and clarify LRA interactions and process alignment. In this initiative NCPA will focus on limiting the applicability of new Resource Adequacy requirements to the NCPA members. NCPA is actively participating in this stakeholder process and market simulation.

FRAC MOO 2

- CAISO has initiated the second phase of the Flexible Resource Adequacy Capacity and Must Offer Obligation initiative (otherwise known as “FRAC MOO 2”). In the FRAC MOO 2 initiative CAISO is planning to address the following issues: (i) assess the need to create a separate downward flexible capacity attribute, (ii) determine eligibility of 15-minute dispatchable intertie resources to provide flexible RA; (iii) access flexible capacity eligibility from storage resources who do not fit within the NGR model, (iv) flexible capacity impacts of uncontracted/merchant Variable Energy Resources, and (v) review of the need to develop a ‘regulation based’ and ‘load-following based’ flexible capacity product. NCPA will actively participate in this effort and will represent the members’ interests as they may appear.

Transmission Access Charge Options

- The current CAISO transmission access charge is a two-part rate for each megawatt hour of internal load and exports and is used to recover transmission revenue requirements. Revenue requirements for facilities rated 200 kV and above are

recovered through a system-wide rate, while requirements for facilities rated below 200 kV are recovered via specific rates for each participating transmission owner. This initiative will determine if the same structure would be appropriate should a transmission owner with a load service territory join the CAISO as a new participating transmission owner. Transmission costs are a major component of the members' costs; therefore NCPA will closely monitor the development of this initiative.

Regional Resource Adequacy

- This initiative will evaluate resource adequacy tariff provisions appropriate for use in a regional ISO balancing authority area that encompasses multiple states. NCPA's main objective in this initiative will be to preserve the members' local control and unique treatment as a load-following MSS.

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

Western Base Resource Tracking (NCPA Pool)

Western Base Resource Tracking - NCPA Pool							
	Actual			Costs & Rates			
	BR Forecast ¹ (MWh)	BR Delivered (MWh)	Difference (MWh)	Base Resource & Restoration Fund (\$)	Monthly Cost of BR ² (\$/MWh)	CAISO LMP Differential ³ (\$/MWh)	12-Mo Rolling Avg. Cost of BR ⁴ (\$/MWh)
Jul-16	59,229	79,774	20,545	\$2,185,609	\$ 27.40	\$ 1.60	\$ 52.56
Aug-16	45,311	62,933	17,622	\$2,185,609	\$ 34.73	\$ 0.74	\$ 50.43
Sep-16	26,431	37,235	10,804	\$2,125,890	\$ 57.09	\$ 0.22	\$ 50.14
Oct-16	19,823	19,056	(767)	\$1,135,901	\$ 59.61	\$ 0.19	\$ 50.53
Nov-16	13,184	8,026	(5,158)	\$1,135,901	\$ 141.53	\$ 0.33	\$ 50.58
Dec-16	16,048	21,742	5,694	\$1,135,901	\$ 52.24	\$ 0.12	\$ 48.62
Jan-17	-	72,578	72,578	\$1,135,901	\$ 15.65	\$ 0.10	\$ 41.38
Feb-17	13,801	82,955	69,154	\$1,135,901	\$ 13.69	\$ 0.14	\$ 35.46
Mar-17	47,259	-	(47,259)	\$1,135,901	\$ 24.04	\$ -	\$ 34.25
Apr-17	52,011	-	(52,011)	\$2,279,529	\$ 43.83	\$ -	\$ 33.55
May-17	76,515	-	(76,515)	\$2,279,529	\$ 29.79	\$ -	\$ 32.75
Jun-17	76,360	-	(76,360)	\$2,279,529	\$ 29.85	\$ -	\$ 32.39
1/ As forecasted in NCPA 16/17 Budget 2/ = (Western Cost + Restoration Fund)/BR Delivered, for Pool Participants only. 3/ = (MEEA LMP - PG&E LAP LMP) using public market information (i.e. not settlement quality). 4/ Based on BR Delivered (Actual) when available and BR Forecast in all other cases. Includes CAISO LMP impact.							

- MEEA pricing (market efficiency enhancement agreement) producing a savings of approximately \$12,000 for the Pool in February 2017. The displacement program was brought out of suspension on February 1 and produced a savings of approximately \$4,600 for the Pool during the month. However, due to very low activity, the Displacement program will be deactivated until later in the spring.
- The customer-driven O&M Governance Board met in February to establish the level of customer funds that will be provided to WAPA and Reclamation for Federal FY21. By unanimous vote, the Board approved a plan that is approximately \$11.7 million less than the funding level requested by the Federal agencies. The approved funding level is intended to bring costs in parity with market value, given the expected level of CVP generation.

Debt and Financial Management

- The US Treasury curve flattened over the month as yields on shorter-term Treasuries (under 3 years) rose in response to heightened expectations for a near-term Fed rate hike, while longer-term yields (10 years and greater) declined modestly as investors tempered their concern about a potential surge in inflation. The two-year Treasury yield increased 5 basis points (bps) to 1.26% while the 10-year yield declined -6 bps to 2.39%.
- As expected, the Federal Reserve (Fed) kept rates unchanged at its February meeting. However, in recent days, expectations for a March 15 rate hike have risen steadily. Fed officials said that economic conditions, such as rising inflationary expectations, warrant “serious consideration” for a rate hike at the Fed’s mid-March meeting.
- Municipal new issuance declined in February, with long-term bond sales falling 34.9% to \$20.7 billion from \$31.8 billion the same month last year. The drop was due in part to a significant decrease in refunding volume, which fell 65% from February 2016. Year-to-date (YTD) long-term sales were down 3.6% to \$55.4 billion compared to \$57.8 billion in the same period last year, according to the Municipal Market Monitor (TM3) data.

Schedule Coordination Goals

Software Development

- After a successful deployment of the Scheduling Software Suite for BART’s BRT1 SCID (Scheduling Coordinator ID), IS staff is working on the configuration of the software suite to support the new MEID SCID for new customer Merced Irrigation District, as well as Santa Clara’s ‘SNCL’ SCID for its non-MSS (Metered SubSystem) portfolio. The MEID SCID implementation is scheduled to take effect as early as in the middle of March 2017, while SVP’s may start in May 2017. The Scheduling Software Suite includes MARS (Member and Resource System) database, Deal Manager application, Prescheduler application, PAGES (Power Agency Grid Energy Scheduler) application and TABS (Trading and Bidding System) application.
- IS Staff continues to perform research and development on the utilization of Business Intelligence software technology to provide better data analysis capabilities to both internal staff and members.
- IS Staff is providing technical assistance to Power Management and Power Settlements in handling various Palo Alto Solar Energy Settlements.

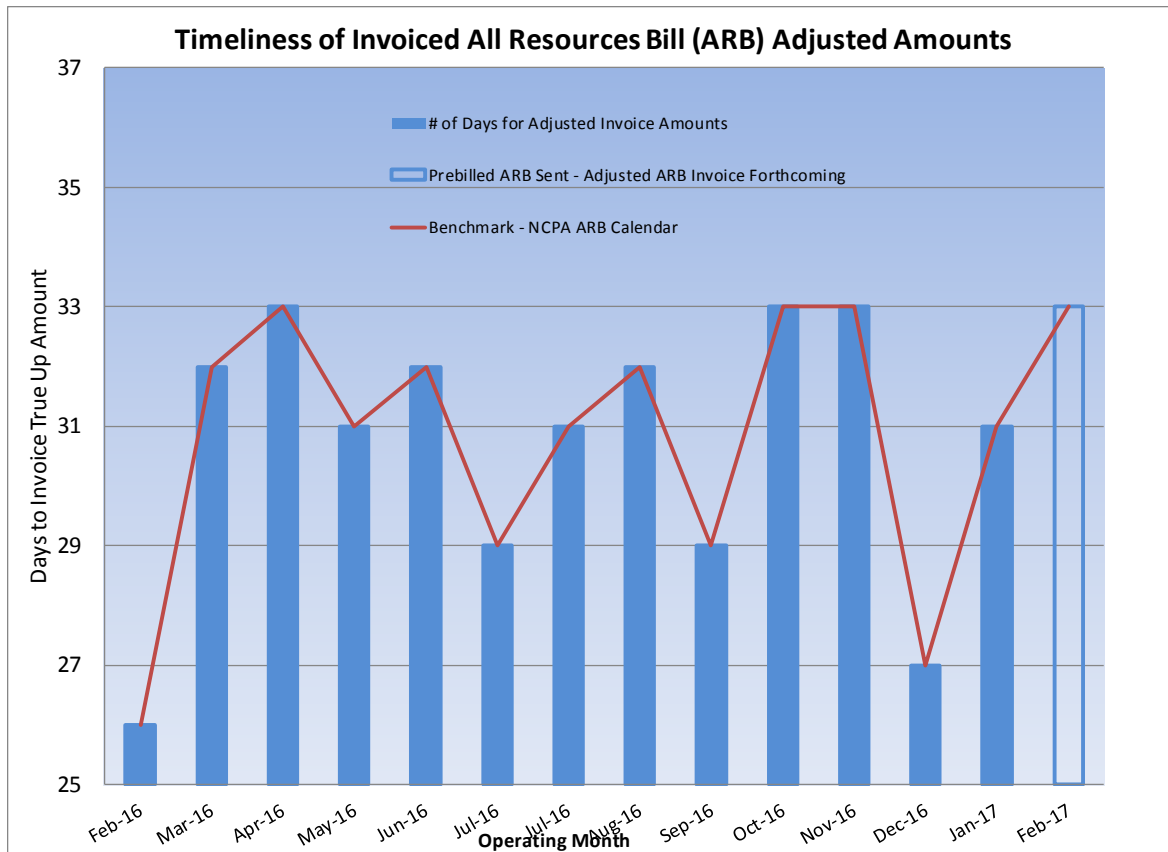
Network

- Work continues on preparing to migrate e-mail from on-premise to Office 365. A few early adopters in the Information Services group have moved their mailboxes and are testing out the functionality. Ops and Support are working with vendors to extract old mail and import into a new archiving solution. Plan to be completed with the migration in the coming months.
- 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.
- Office 2016 upgrade project has been completed.
- Information Services is currently recruiting for a Cyber Security student intern position to help with enhancing and executing an incident response procedure for the Agency and its members. Work is expected to begin this summer.
- Work continues in preparation for onboarding the Merced Irrigation District MEID scheduling coordination portfolio into the Agency's bidding, scheduling and metering systems. Network communications have been configured and currently working with MEID staff to receive the correct set points that will be used in dispatch operations.

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 March 2017 NCPA All Resources Bill (ARB) monthly invoice sent to members on February 21, 2017 contains:
 - March 2017 monthly pre-billed budget/forecast amounts;
 - January 2017 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;
 - December 2016 (2nd Adjustment) NCPA Project settlement true-up and T+12 business day recalculated CAISO settlement true-up allocations;
 - October 2016 (3rd Adjustment) T+55 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;
 - April 2016 (4th Adjustment) T+9 month recalculated CAISO settlement true-up allocations;
 - June 2015 (5th Adjustment) T+18 month recalculated CAISO settlement true-up allocations;
 - January 2014 (6th Adjustment) T+35 month CAISO settlement true-up



Legislative & Regulatory

Political Arena State/Federal/Western Programs

- NCPA is analyzing over 100 NCPA-relevant bills that were introduced by the state Legislature by the February 17th bill introduction deadline. NCPA is currently in the process of meeting with stakeholders and legislative offices to work on amendments where appropriate, and to develop positions on bills. Major issues include the future of the Cap and Trade Program, a 100% Renewables Portfolio Standard, energy storage incentives, and workforce development. Issues that have not materialized in bills, but NCPA is monitoring, are regionalization and net energy metering expansion.
- A delegation of NCPA members and staff participated in the American Public Power Association’s (APPA) annual Winter Legislative Rally. The NCPA group met with key committee staff, delegation offices, and federal officials to promote its legislative and regulatory priorities, including hydropower licensing reform, proportional funding of the Central Valley Project Improvement Act Restoration Fund, federal assistance for workforce development programs in the utility sector, sustainable funding for wildfire suppression activities, and the value of tax-exempt financing. On the latter, NCPA General Manager Randy Howard introduced a policy resolution that was unanimously approved by the APPA Legislative and Resolutions Committee highlighting the role of tax-exempt bonds in financing the nation’s infrastructure. Also, NCPA urged its delegation members to sign a bipartisan letter supporting tax-exempt bonds that was sent to the leadership of the House tax-writing committee.

- NCPA participated in a Bureau of Reclamation and the California Department of Water Resources workshop to discuss how their recent initiation of reconsultation with the various federal and state fisheries agencies could impact future Central Valley Project (CVP) power costs. The reconsultation process will take an estimated 3-5 years, and will ultimately lead to new biological opinions that will affect the operations of the CVP and the State Water Project. NCPA emphasized the need to maintain availability, value, and flexibility for CVP generation, so that power peaking and summertime operations are maintained. It was also emphasized that any additional losses of power generation, decreased market value, or losses of generating flexibility, may force customers to end their purchases from the CVP.
- NCPA, along with the Southern California Public Power Authority and the California Municipal Utilities Association joined forces to respond to efforts by the state's energy agencies to establish a 2030 greenhouse gas emission (GHG) target for each electric distribution utility. In response to more than a dozen questions from the agencies raised at a recent joint agency workshop, NCPA highlighted three fundamental points focusing on the value of local decision-making, including the following: 1) the GHG target is simply a target, and should not become a compliance measure for individual utilities; 2) individual decisions by customers must be carefully factored into the methodology for calculating utility-specific targets; and, 3) prescriptive and unreasonably low targets compromise the ability of utilities to respond to uncertainties and reduce emissions in the most cost-effective manner. NCPA will continue to advance these guiding principles as the state moves forward with its post-2020 climate program.

Human Resources

Hires:

Monty Hanks joined NCPA on February 21, 2017 as Assistant General Manager of Finance and Administrative Services / Chief Financial Officer at our Headquarters office in Roseville, CA. Monty brings with him over 21 years of experience in the financial sector, with the last 15 years at the City of Roseville. In addition, Monty has a Bachelor's Degree in Business Administration and a Master's in finance degree from CSU Sacramento.

Intern Hires:

None

Promotions/Position Changes:

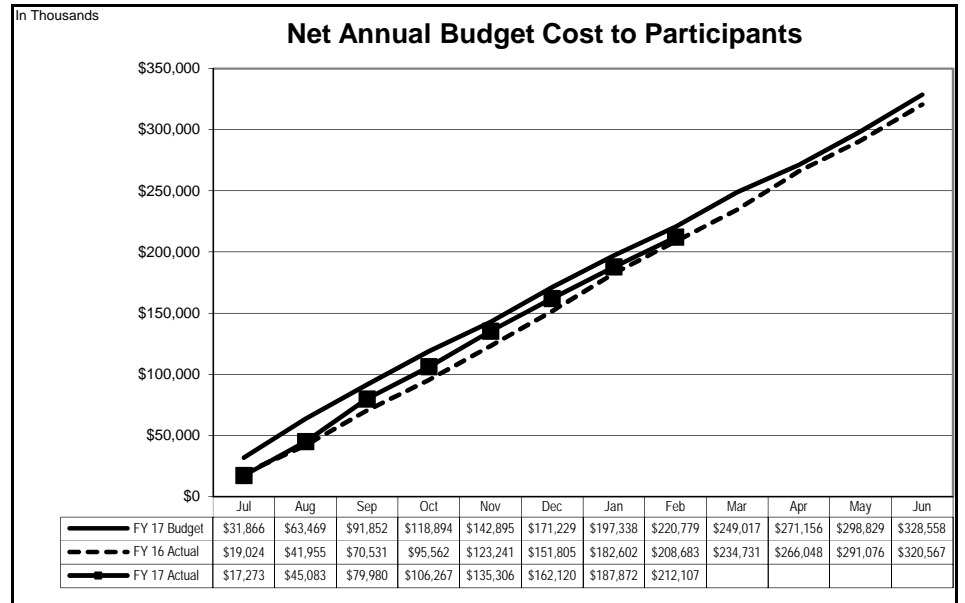
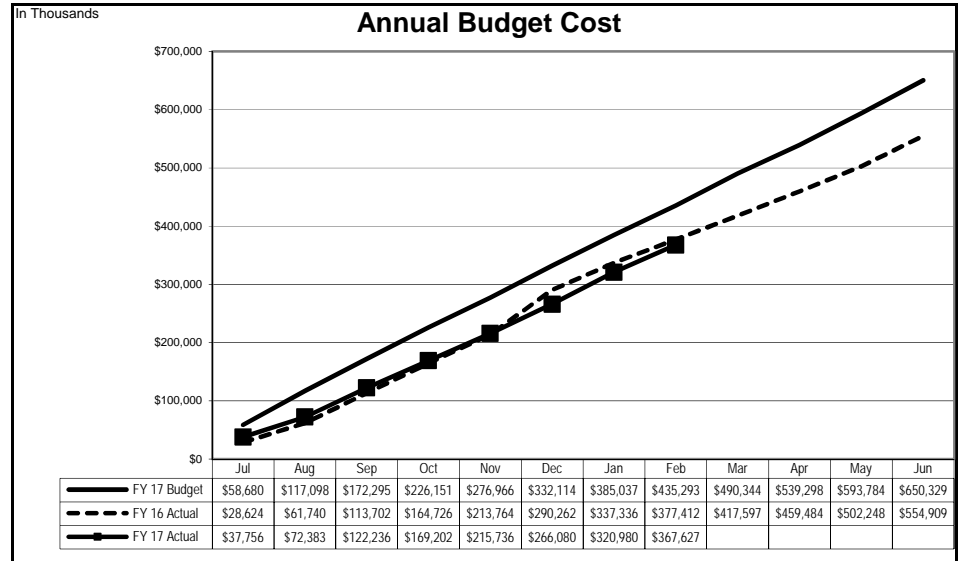
None

Terminations:

Cheryl Svehla Accounting Clerk II, left during her probationary period at our Roseville Headquarters.

**Annual Budget
2016-2017 Fiscal Year To Date
As of February 28, 2017**

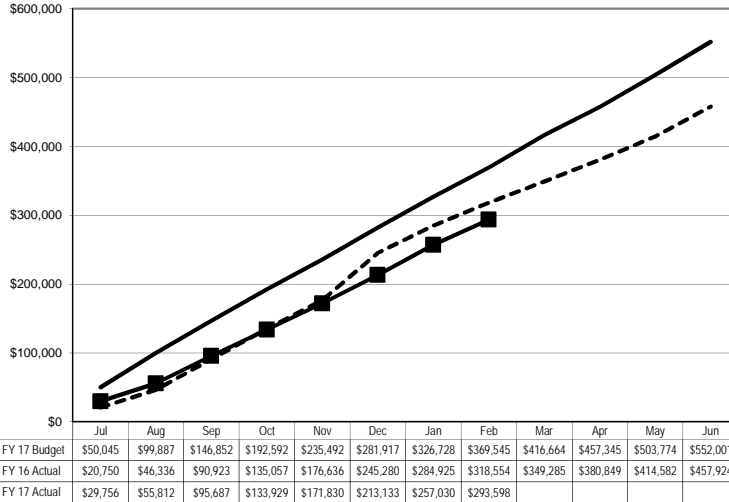
In Thousands	Program			
	Annual Budget	Actual	Under(Ovr) Budget	YTD % Remaining
GENERATION RESOURCES				
NCPA Plants				
Hydroelectric	51,854	34,470	\$ 17,384	34%
Geothermal Plant	33,145	19,068	14,077	42%
Combustion Turbine No. 1	2,648	2,305	344	13%
Combustion Turbine No. 2 (STIG)	8,587	5,458	3,129	36%
Lodi Energy Center	92,991	37,872	55,119	59%
	189,227	99,173	90,053	48%
Member Resources - Energy	45,638	30,078	15,559	34%
Member Resources - Natural Gas	4,878	3,511	1,367	28%
Western Resource	30,288	15,474	14,814	49%
Market Power Purchases	39,302	22,773	16,530	42%
Load Aggregation Costs - ISO	240,129	122,053	118,075	49%
Net GHG Obligations	2,540	535	2,005	79%
	552,001	293,598	258,403	47%
TRANSMISSION				
Independent System Operator	81,001	64,245	16,756	21%
MANAGEMENT SERVICES				
Legislative & Regulatory				
Legislative Representation	1,897	1,048	849	45%
Regulatory Representation	794	518	276	35%
Western Representation	817	361	455	56%
Member Services	432	247	185	43%
	3,940	2,174	1,766	45%
Judicial Action	625	426	199	32%
Power Management				
System Control & Load Dispatch	5,622	3,279	2,343	42%
Forecasting & Prescheduling	2,555	1,407	1,148	45%
Industry Restructuring	414	192	222	54%
Contract Admin, Interconnection Svcs & Ext. Affairs	1,137	553	584	51%
Green Power Project	18	1	16	93%
Gas Purchase Program	87	40	46	53%
Market Purchase Project	128	52	76	59%
	9,960	5,525	4,434	45%
Energy Risk Management	212	126	86	41%
Settlements	862	328	534	62%
Integrated System Support	311	81	229	74%
Participant Pass Through Costs	1,417	1,022	395	28%
Support Services	-	103	(103)	
	17,326	9,784	7,542	44%
TOTAL ANNUAL BUDGET COST	650,328	367,627	282,701	43%
LESS: THIRD PARTY REVENUE				
Plant ISO Energy Sales	118,943	45,632	73,311	62%
Load Aggregation Energy Sales	184,117	81,413	102,703	56%
Ancillary Services Sales	3,790	2,698	1,092	29%
Other ISO Revenue	-	10,192	(10,192)	
Transmission Sales	110	74	37	33%
Western Credits, Interest & Other Income	14,811	15,511	(701)	-5%
	321,770	155,520	166,250	52%
NET ANNUAL BUDGET COST TO PARTICIPANTS	328,558	212,107	\$ 116,451	35%



**Annual Budget
Budget vs. Actual By Major Area
2016-2017 Fiscal Year To Date
As of February 28, 2017**

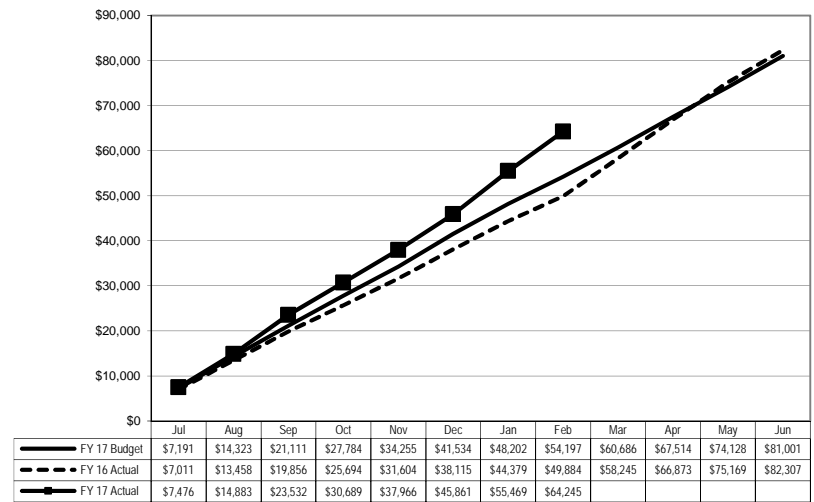
In Thousands

Generation Resources



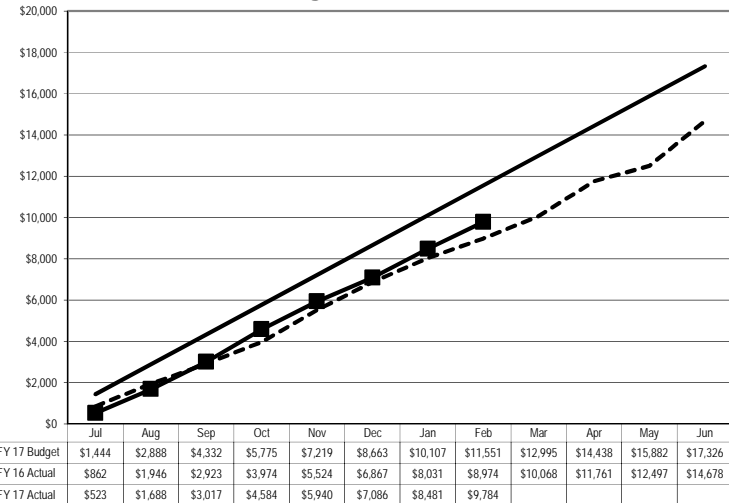
In Thousands

Transmission-ISO



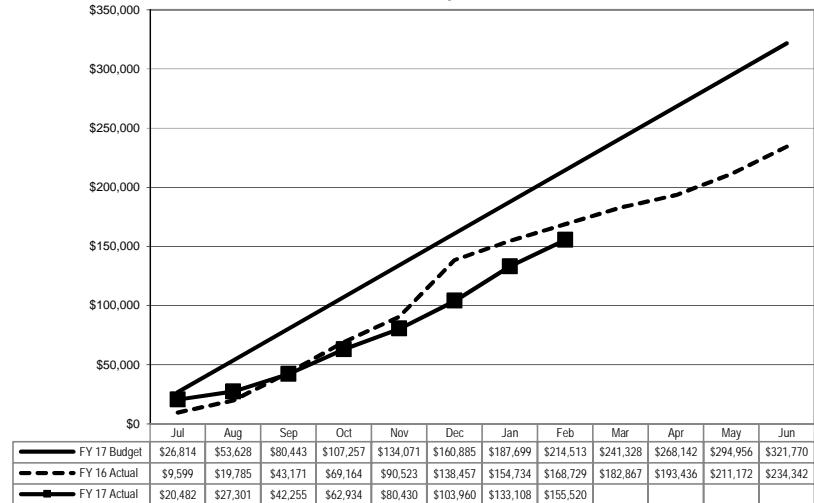
In Thousands

Management Services



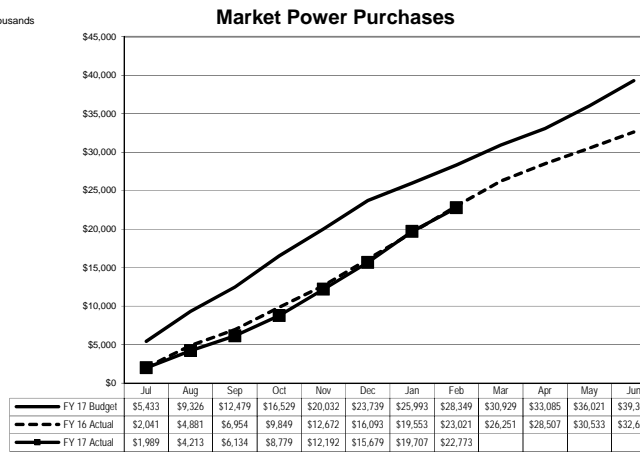
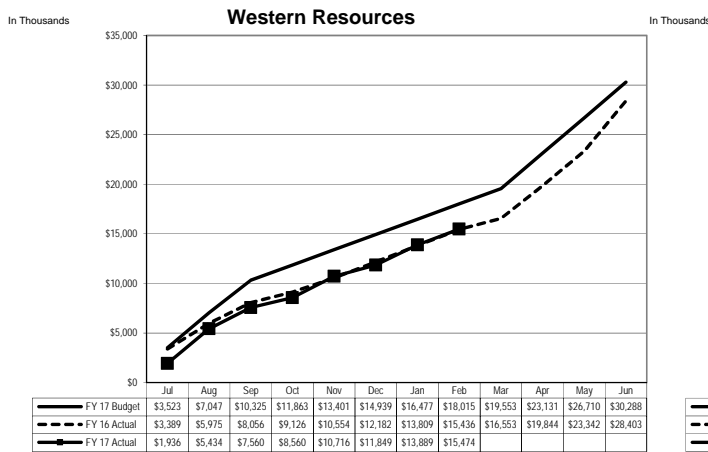
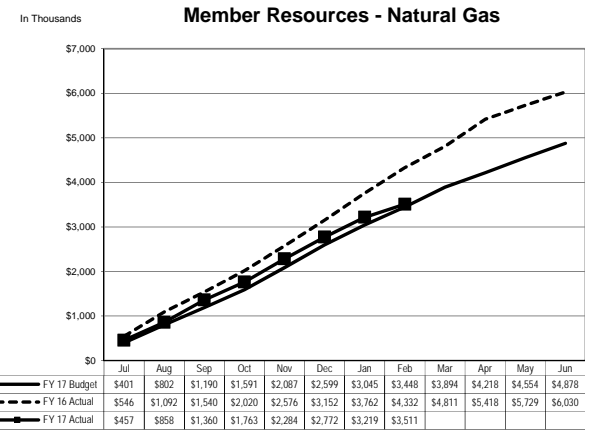
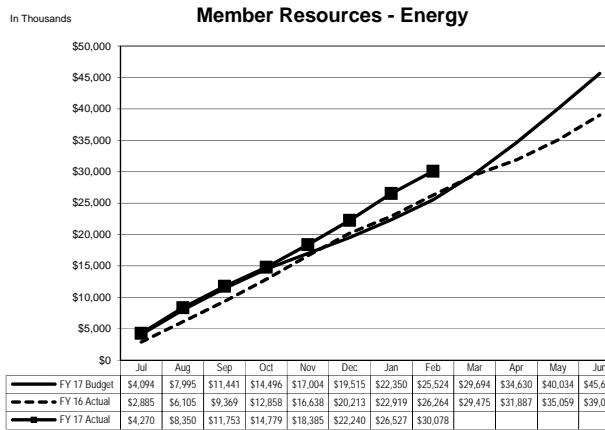
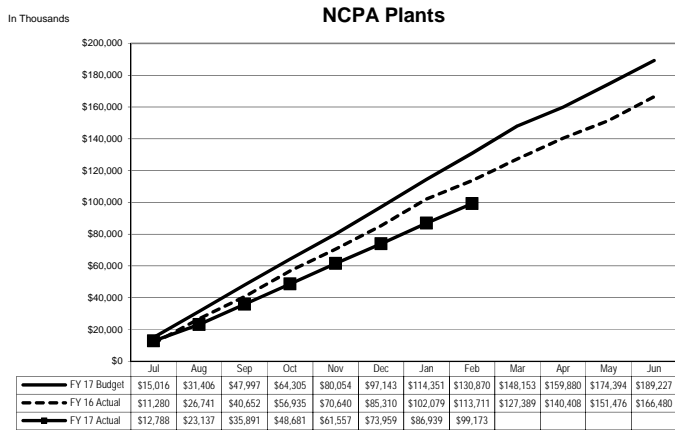
In Thousands

Third Party Revenue



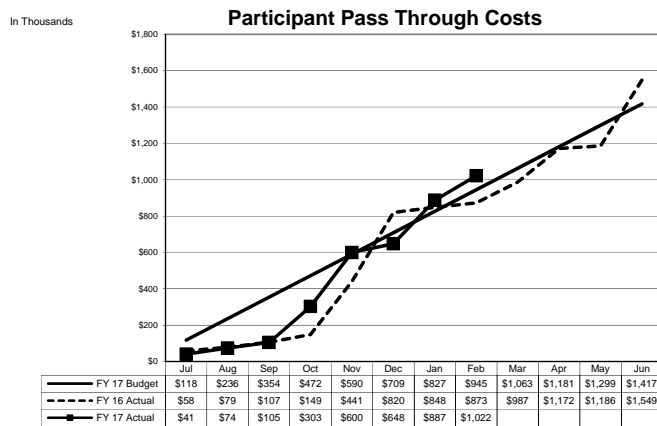
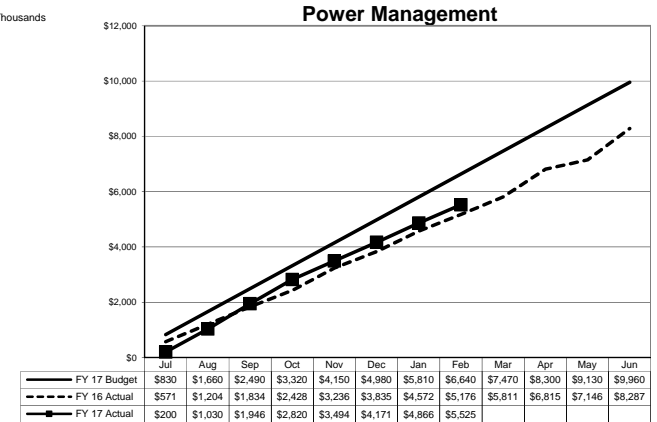
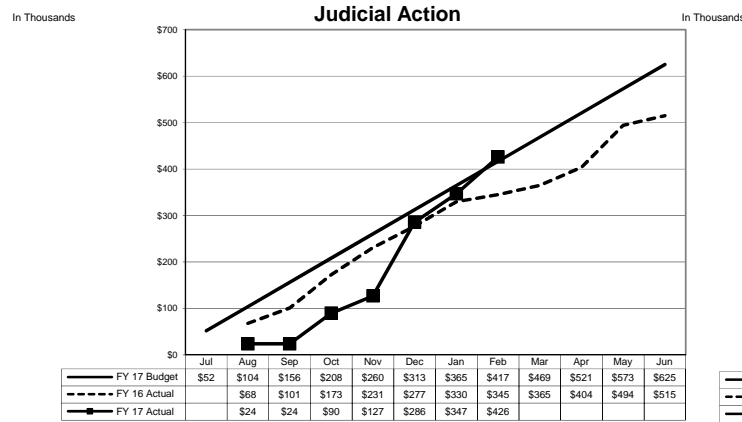
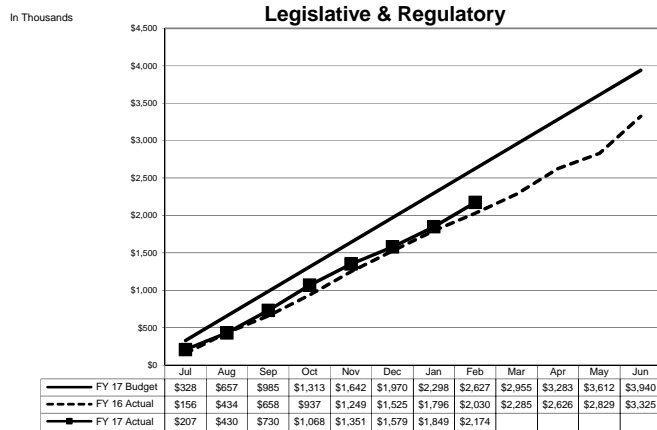
Footnote: Transmission is solely reflective of Independent System Operator (ISO) costs

**Annual Budget Cost
Generation Resources Analysis By Source
2016-2017 Fiscal Year To Date
As of February 28, 2017**



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

**Annual Budget Cost
Management Services Analysis By Source
2016-2017 Fiscal Year To Date
As of February 28, 2017**



**Annual Budget Cost
Management Services Analysis By Source
2016-2017 Fiscal Year To Date
As of February 28, 2017**

In Thousands

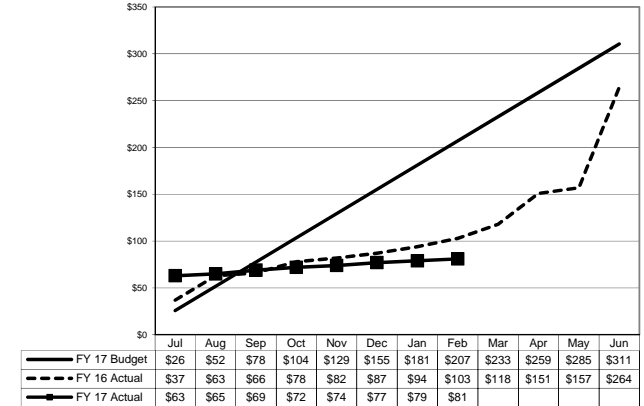
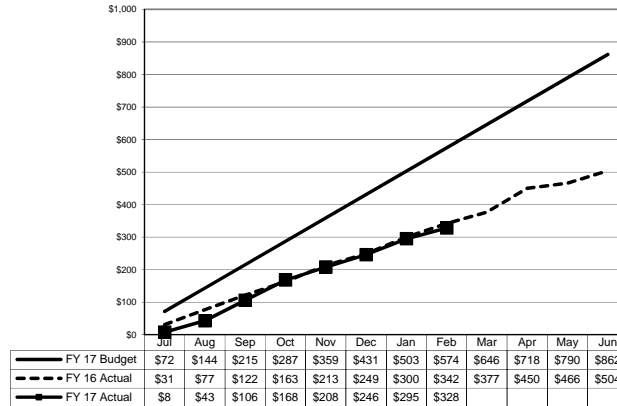
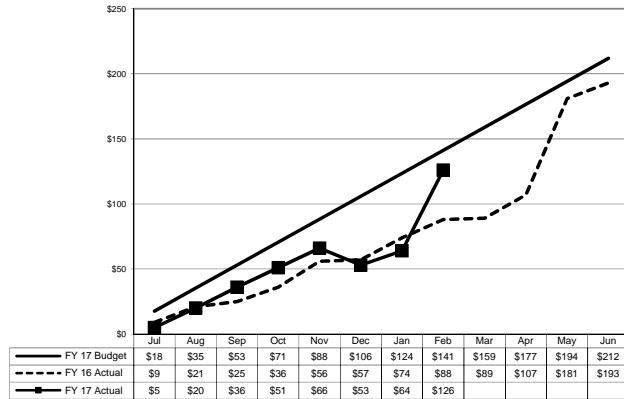
Energy Risk Management

In Thousands

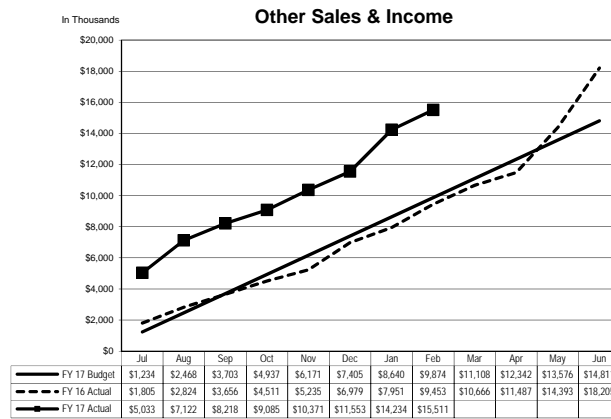
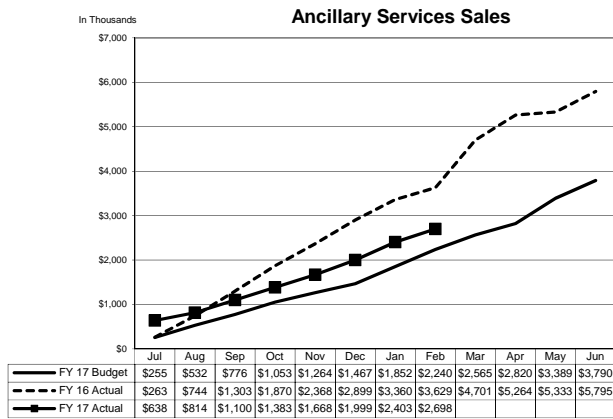
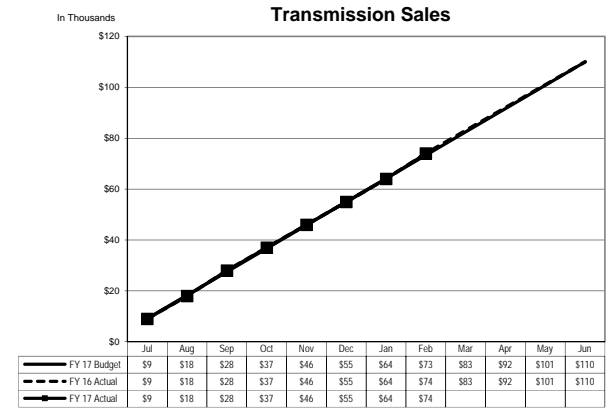
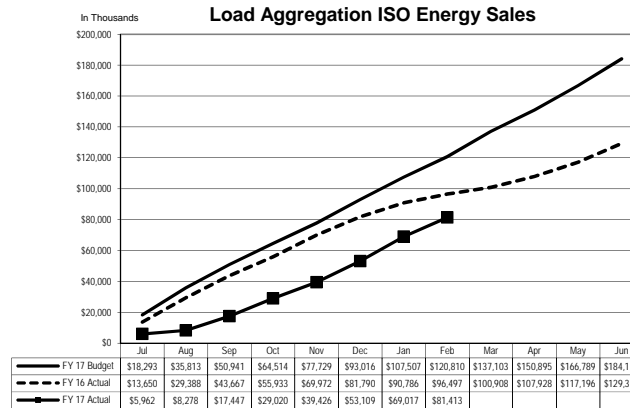
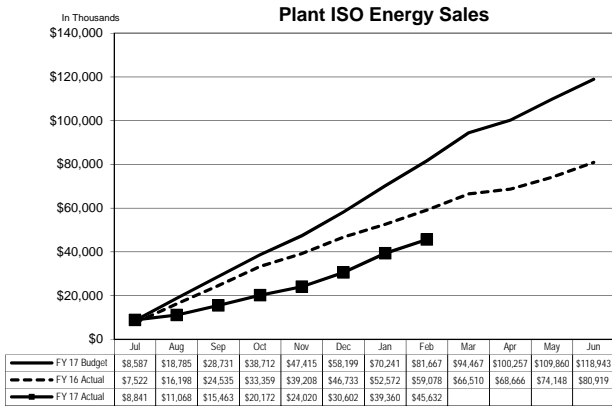
Settlements

In Thousands

Integrated Systems Support



**Annual Budget Cost
Third Party Revenue Analysis By Source
2016-2017 Fiscal Year To Date
As of February 28, 2017**



**Annual Budget
NCPA Generation Detail Analysis By Plant
2016-2017 Fiscal Year To Date
As of February 28, 2017**

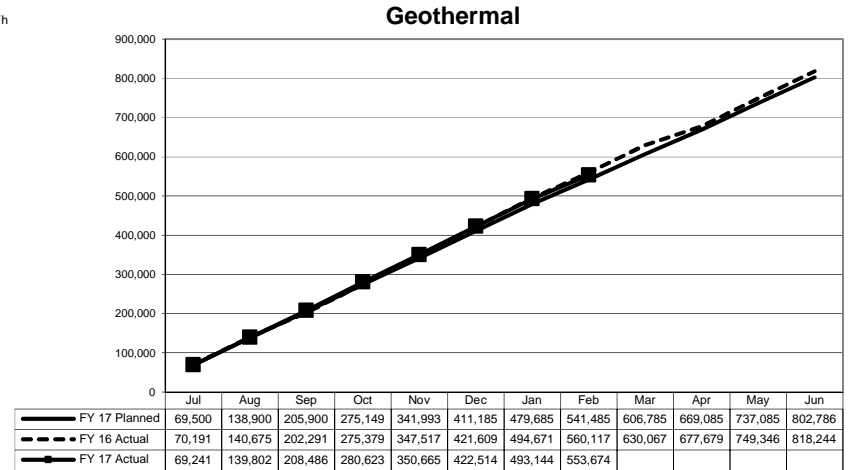
Generation Cost Analysis

\$ in thousands

	Geothermal				
			\$/MWh	Under(Ovr)	YTD %
	Budget	Actual	Actual	Budget	Remaining
Routine O & M	\$ 17,159	\$ 10,313	\$ 18.63	\$ 6,846	40%
Capital Assets/Spare Parts Inventories	2,575	619	1.12	1,956	76%
Other Costs	7,994	4,468	8.07	3,526	44%
CA ISO Charges	308	412	0.74	(104)	-34%
Debt Service	5,110	3,256	5.88	1,854	36%
Annual Budget	33,145	19,068	34.44	14,077	42%
Less: Third Party Revenue					
Interest Income	32	131	0.24	(99)	-305%
ISO Energy Sales	30,113	18,994	34.31	11,118	37%
Ancillary Services Sales	-	1	0.00	(1)	
Effluent Revenues	700	374	0.68	326	47%
Misc	110	762	1.38	(652)	
	30,955	20,263	36.60	10,693	35%
Net Annual Budget Cost to Participants	\$ 2,190	\$ (1,194)	\$ (2.16)	\$ 3,384	155%
Net Generation--MWh @ Meter	802,786	553,674			
\$/MWh (A)	\$ (3.64)	\$ (8.04)			

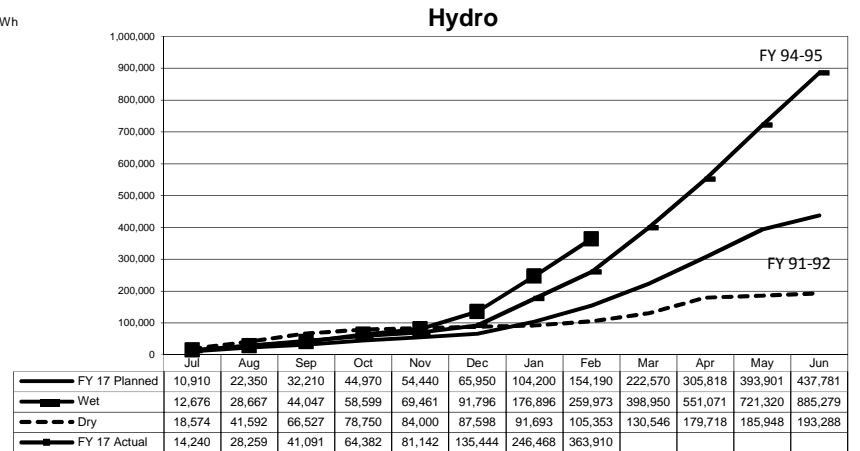
MWhs Generated

In MWh



	Hydroelectric				
			\$/MWh	Under(Ovr)	YTD %
	Budget	Actual	Actual	Budget	Remaining
Routine O & M	\$ 8,369	\$ 4,500	\$ 12.37	\$ 3,869	46%
Capital Assets/Spare Parts Inventories	2,135	1,259	3.46	876	41%
Other Costs	2,861	1,457	4.00	1,404	49%
CA ISO Charges	237	1,753	4.82	(1,516)	-640%
Debt Service	38,253	25,502	70.08	12,751	33%
Annual Budget	51,854	34,470	94.72	17,384	34%
Less: Third Party Revenue					
Interest Income	91	210	0.58	(119)	-131%
ISO Energy Sales	19,542	14,235	39.12	5,307	27%
Ancillary Services Sales	2,487	1,883	5.18	604	24%
Misc	-	27	0.07	(27)	
	22,120	16,356	44.94	5,765	26%
Net Annual Budget Cost to Participants	\$ 29,734	\$ 18,115	\$ 49.78	\$ 11,620	39%
Net Generation--MWh @ Meter	437,781	363,910			
\$/MWh (A)	\$ (19.46)	\$ (20.30)			

In MWh



Footnotes:

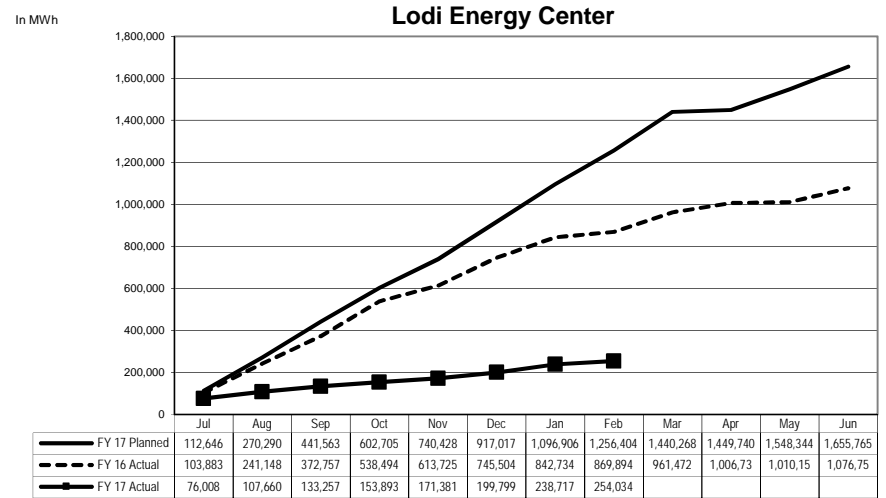
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

**Annual Budget
NCPA Generation Detail Analysis By Plant
2016-2017 Fiscal Year To Date
As of February 28, 2017**

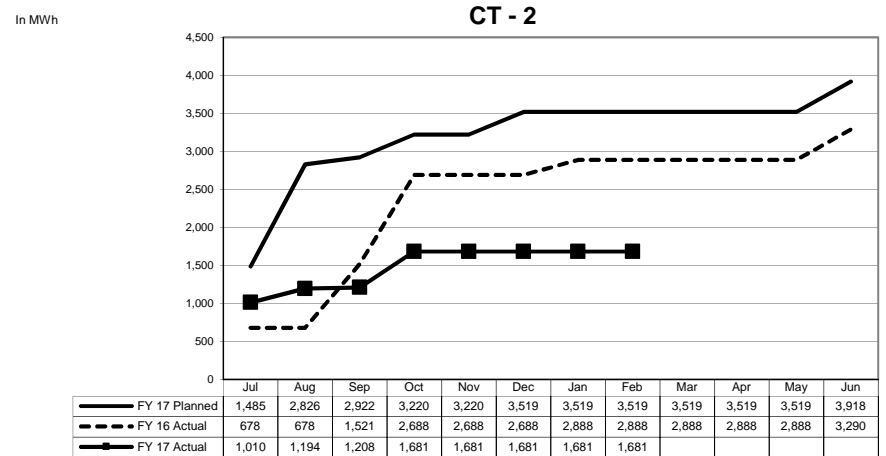
Generation Cost Analysis

Lodi Energy Center					
	Budget	Actual	\$/MWh Actual	Under(Ovr) Budget	YTD % Remaining
Routine O & M	\$ 14,041	\$ 7,007	\$ 27.58	\$ 7,034	50%
Fuel	44,101	7,693	30.28	36,408	83%
AB 32 GHG Offset	-	-	-	-	-
CA ISO Charges and Energy Purchases	2,374	2,458	9.67	(83)	-4%
Capital Assets/Spare Parts Inventories	2,805	1,231	4.85	1,574	56%
Other Costs	3,233	1,875	7.38	1,358	42%
Debt Service	26,437	17,608	69.31	8,829	33%
Annual Budget	92,991	37,872	149.08	55,119	59%
Less: Third Party Revenue					
Interest Income	44	128	0.50	(84)	-188%
ISO Energy Sales	68,846	11,820	46.53	57,026	83%
Ancillary Services Sales	1,303	533	2.10	770	59%
Transfer Gas Credit	-	-	-	-	0%
Misc	3	4,361	17.17	(4,358)	0%
	70,197	16,843	66.30	53,354	76%
Net Annual Budget Cost to Participants	\$ 22,795	\$ 21,029	\$ 82.78	\$ 1,765	8%
Net Generation--MWh @ Meter	1,655,765	254,034			
\$/MWh (A)	\$ (2.20)	\$ 13.47			

MWhs Generated



Combustion Turbine No. 2 (STIG)					
	Budget	Actual	\$/MWh Actual	Under(Ovr) Budget	YTD % Remaining
Routine O & M	\$ 1,413	\$ 847	\$ 503.71	\$ 566	40%
Fuel and Pipeline Transport Charges	936	537	319.21	399	43%
Capital Assets/Spare Parts Inventories	133	25	14.85	108	81%
Other Costs	477	254	151.05	223	47%
CA ISO Charges	2	46	27.14	(43)	-1893%
Debt Service	5,626	3,750	2,230.96	1,875	33%
Annual Budget	8,587	5,458	3,246.93	3,129	36%
Less: Third Party Revenue					
Interest Income	19	37	22.18	(19)	-99%
ISO Energy Sales	282	127	75.28	155	55%
Ancillary Service Sales	-	0	0.01	(0)	0%
Fuel and Pipeline Transport Credits	415	797	473.83	(382)	-92%
Misc	-	-	-	-	0%
	715	960	571.30	(245)	-34%
Net Annual Budget Cost to Participants	\$ 7,872	\$ 4,498	\$ 2,675.63	\$ 3,374	43%
Net Generation--MWh @ Meter	3,918	1,681			
\$/MWh (A)	\$ 573.32	\$ 444.67			



Footnotes:

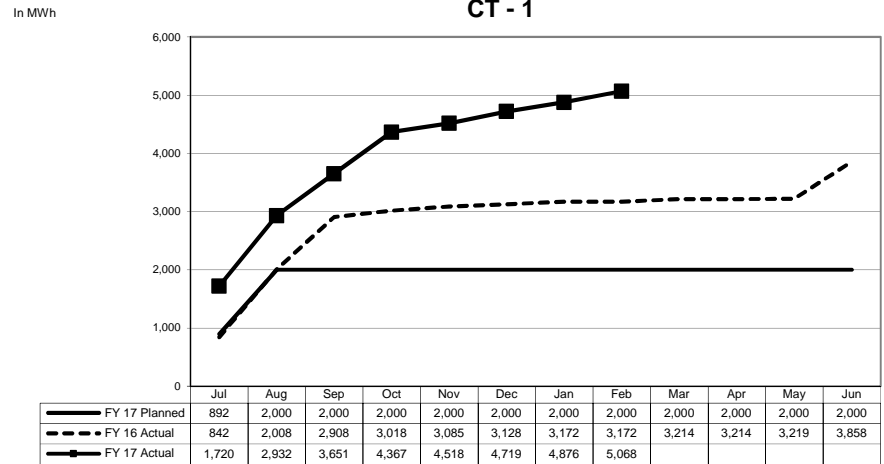
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

**Annual Budget
NCPA Generation Detail Analysis By Plant
2016-2017 Fiscal Year To Date
As of February 28, 2017**

Generation Cost Analysis

	Combustion Turbine No. 1				
	Budget	Actual	\$/MWh Actual	Under(Ovr) Budget	YTD % Remaining
Routine O & M	\$ 1,459	\$ 1,247	\$ 245.97	\$ 213	15%
Fuel and Pipeline Transport Charges	174	376	74.15	(202)	-116%
Capital Assets/Spare Parts Inventories	525	362	71.48	163	31%
Other Costs	489	248	48.94	241	49%
CA ISO Charges	1	72	14.24	(71)	-6908%
Debt Service	-	-	-	-	-
Annual Budget	2,648	2,305	454.78	344	13%
Less: Third Party Revenue					
Interest Income	0	-	-	0	-
ISO Energy Sales	160	455	89.85	(295)	0%
Ancillary Services Sales	-	0	0.03	(0)	0%
Misc	-	16	3.09	(16)	0%
	161	471	92.96	(311)	-193%
Net Annual Budget Cost to Participants	\$ 2,488	\$ 1,834	\$ 361.81	\$ 654	26%
Net Generation--MWh @ Meter	2,000	5,068			
\$/MWh (A)	\$ 1,243.89	\$ 361.81			

MWhs Generated



Footnotes:

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