



BUSINESS PROGRESS REPORT

SEPTEMBER 2018



Table of Contents

Generation Costs & Reliability	1
Environmental, Health & Safety Projects	4
Power Management/NCPA Market Results.....	5
Debt & Financial Management	11
Schedule Coordination Goals.....	11
NCPA Bills & Settlements.....	12
Political Arena State/Federal/Western Programs	14
Human Resources.....	14
Annual Budget FY to Date.....	15
Budget vs. Actual by Major Area	16
Generation Resources Analysis by Source	17
Management Services Analysis by Source	18
Third Party Revenue Analysis by Source	20
Generation Detail Analysis by Plant	22

Generation Costs & Reliability

Combustion Turbine Project

Unit Operation for August 2018

Unit	Availability		Production		Reason for Run
CT1 Alameda	Unit 1	Unit 2	Unit 1	0.0 MWh	Out of Service / CAISO
	0.0%	100.0%	Unit 2	623.1	
Curtailements, Outages, and Comments:					
Alameda CT U1 Compressor Failure ETR 08/31 OMS 6125778 / Alameda CT U2 o/s due to diesel starter engine, ETR 2359 8/14 OMS 6309610					
Unit	Availability		Production		Reason for Run
CT1 Lodi	100.0%		1,306.8 MWh		CAISO
Curtailements, Outages, and Comments:					
No Comment.					
Unit	Availability		Production		Reason for Run
CT2 STIG	100.0%		4,372.1 MWh		CAISO
Curtailements, Outages, and Comments:					
No Comment.					
Unit	Availability		Production		Reason for Run
LEC	100.0%		177,842 MWh		CAISO
Curtailements, Outages, and Comments:					
No Comment.					

Maintenance Summary – Specific per asset above.

Geothermal Facilities

Availability/Production for August 2018

Unit	Availability	Net Electricity Generated/Water Delivered	Out-of-Service/Descriptors
Unit 1	100 %	21,200 MWh	U1 had no outages for the month
Unit 2	100 %	*21,400 MWh	U2 had no outages for the month
Unit 3	N/A %	N/A	Unit 3 remains out of service.
Unit 4	100 %	30,891 MWh	U4 had no outages for the month
Southeast Geysers Effluent Pipeline	98.5 %	176.9 mgallons	Average flow rate: 4,014 gpm
Southeast Solar Plant	N/A	55,891 KWh	Year-to-date KWh: 1,423,634
Bear Canyon Pump Station Zero Solar	N/A	119,412 KWh	Year-to-date KWh: 2,825,779

* Accounts for an additional 1,655 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

Hydroelectric Project

Availability/Production for August 2018

Units	Availability	Net Electricity Generated	Out-of-Service
Collierville Unit 1	99.77 %	16334 MWh	CV #1 unit was out of service on, 08/30/18 at 1059 through 1239 due to Exciter brush replacement.
Collierville Unit 2	100.00 %	21842 MWh	CV #2 unit no reportable outages.
Spicer Unit 1	100.00 %	1414 MWh	NSM #1 unit no reportable outages.
Spicer Unit 2	100.00 %	1482 MWh	NSM #2 unit no reportable outages.
Spicer Unit 3	100.00 %	267 MWh	NSM #3 unit no reportable outages.

Operations & Maintenance Activities:

- CMMS work orders
- Planning and Preparation for CV2 Generator rewind
- Completed CV crane upgrade and load testing
- Collierville/Bellota 230kv Line 1 line carrier radio replacement
- Hosted West Coast Hydro Meeting
- Emergency Action Plan first responder table top discussion and binder update
- Historical Management Plan Report
- Union Dam Repairs

Environmental, Health & Safety (EH&S) Projects Incident Reports

- No lost time accidents or vehicle accidents occurred in August. Two recordable incidents occurred. The first incident occurred on July 24, 2018 at Geo, in which an employee from headquarters was on site and fractured their leg while exiting a vehicle. Since this recordable incident occurred after the end of the last payroll period for July, this recordable was calculated into August 2018 EH&S Report. The second incident occurred on August 28, 2018 at Hydro, in which an employee cut their thumb. The employee went to a local clinic where Durmabond topical skin adhesive was applied. According to Cal OSHA regulations, Durmabond is classified as a surgical glue, so this incident is considered a recordable.
- 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 August 18, 2018.
- 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.

August 2018 Generation Services Safety Report

	Hydro	GEO	CT Group *	NCPA HQ **
Cal OSHA Recordable (this month)	1	1	0	0
Cal OSHA Recordable (calendar year)	1	2	0	0
Days since Recordable	21	25	1,230	6,298
Work Hours Since Last Recordable	2,016	5,150	181,057	2,276,251
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	0	0	0
Days without LTA	3,956	1,093	9,134	5,227
Work Hours without LTA	362,466	222,125	622,421	1,898,269
Vehicle Incident (month)	0	0	0	0
Vehicle Incident (calendar year)	1	0	2	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 July 21, 2018.

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 2018 Data

	August 2018		Calendar Year 2018	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	417.67 8/9 @1800	211,073	419.2 7/25 @1700	1,544,081
SVP	529.29 8/9 @1700	325,476	529.29 8/9 @1700	2,463,814
MSSA	945.44 8/9 @ 1700	536,549	945.44 8/9 @ 1700	4,007,895

Last Year 2017 Data*

	August 2017		Calendar Year 2017	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	455.39 8/28 @1700	223,330	485.85 9/1 @1700	1,602,658
SVP	563.67 8/2 @ 1700	334,588	586.59 9/1 @1600	2,469,464
MSSA	1010.21 8/2 @ 1700	557,918	1070.79 9/1 @ 1700	4,072,122

* Last year's data added for comparison purposes only

System Peak Data

	All Time Peak Demand	2018 Peak Demand
NCPA Pool	517.83 MW on 7/24/06 @ 1500	419.2 7/25 @ 1700
SVP	586.59 MW on 9/1/17 @ 1600	529.29 8/9 @ 1700
MSSA	1070.79 MW on 9/1/17 @ 1700	945.44 8/9 @ 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		
	August 2018	Calendar Year 2018
MSSA % Within the Band	96.66%	97.52%

- Spicer Meadows:
 - No curtailments
- Geothermal Units:
 - No curtailments
- Lodi Energy Center:
 - No curtailments
- Alameda CTs:
 - August 1 - 31, Unit 1 remains o/s due to compressor blade failure
 - August 9 - 31, Unit 2 o/s due to diesel cranking motor trouble
- Lodi CT:
 - August 20 @ 0828 - 1214, unit o/s due to repair ratchet oil leak
- Collierville Units:
 - August 30 @ 1059 – 1239, Unit 1 o/s for exciter brush replacement
- STIG:
 - No curtailments

Pooling, Portfolio Planning & Forecasting

- Actual NCPA Pool load of 211,074 MWh during August 2018 was 95.0% of the pre-month forecast of 222,297 MWh. Through September 12, 2018, Pool load has reached a total of 78,764 MWh, and may not reach the September 2018 load forecast of 206,507 MWh, particularly if temperatures remain mild.
- The Lodi Energy Center (LEC) generated 31,977 MWh for the Pool in August 2018, or 88.1% of the 36,316-MWh forecast. The forecast was based on higher power prices and lower natural gas prices for the period. When temperatures began to cool late in August, market runs became shorter, hence the forecast deviation. The Pool's share of generation through September 12, 2018 was 5,505 MWh.
- For the month of August 2018, 0.00" of rain was recorded at the Big Trees gage. August Big Trees average precipitation is 0.09".
- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) is being maintained at \$60/MWh.
- NSMR storage as of August 31, 2018 was at 110,540 acre feet. The historical average NSMR storage at the end of August is 118,197 acre feet. As of September 18, 2018 NSMR storage is 103,689 acre feet. The current NCPA Pool share of NSMR storage is 52,811 acre feet.
- Combined Calaveras Project generation for the Pool in August 2018 totaled 21.0 GWh, slightly down from 22.7 GWh in July 2018. The Pool's 21.0 GWh in August 2018 was slightly above the pre-month forecast of 18.9 GWh. Through September 18, 2018 Calaveras generation for the Pool is 4.9 GWh.
- Western Base Resource (BR) deliveries for the Pool in August 2018 was 47,727 MWh, or 94.1% of our downward revision of Western's 66-GWh forecast. Through September 12, 2018, BR allocations for the Pool was 14.3 GWh (including 2.3 GWh of Displacement), totaling 36% of the Western forecast for September (39,727 MWh).
- The PG&E Citygate gas index averaged \$3.08/MMBtu for September 12, 2018 delivery and has traded above \$3 since July 21, 2018. This is compared to an average of \$3.325/MMBtu (with a high of \$3.48/MMBtu) in August 2018. The September 2018 PG&E Bidweek price is \$3.19, up \$0.11 from August's Bidweek price, but well below the SoCal Citygate September 2018 Bidweek price of \$4.93/MMBtu.
- Day-ahead NP15 electricity prices averaged \$57.03/MWh (HLH) and \$39.90 (LLH) during August 2018, with the hourly TH_NP15 maximum at \$464.08/MWh and minimum \$18.96. In September 2018, on-peak prices have averaged \$38.12, with highs barely reaching \$40/MWh.

NCPA Pool Loads & Resources Value Summary								
Peak and Energy Summary Aug-18				Estimated Production Costs			Cost of Serving Demand	
Demand	Coincident Peak (MW)	Total MWh	Forecast Values	Avg. MW	NCPA Pool		Totals	Avg (\$/MWh)
	Aug-09-18 Hour 18				Cost/Revenue (Estimate)	Variable Cost (\$/MWh)		
	417.7	211,074	222,297	283.7	N/A	N/A		
WAPA	68.0	47,727	50,700	64.1	\$ 1,955,240	\$ 40.97	\$ 11,675,362	\$ 55.31
Geothermal	-	28,645	28,036	38.5	544,251	19.00		
Hydro	-	21,075	19,943	28.3	126,449	6.00		
Stig & CTs	-	3,736	8,800	5.0	221,898	59.40		
LEC	-	31,977	36,316	43.0	1,118,572	34.98		
Contracts	173.8	111,233	101,425	149.5	6,800,592	61.14	\$ 9,299,102	\$ 44.06
Market - Net (Net Sales = Negative)	175.9	(33,319)	(22,923)	(44.8)	(1,735,946)	52.10		
Net Total	417.7	211,074	222,297	283.7	\$ 9,031,055	\$ 44.06		

Monthly Market Summary					Forward Prices (EOX NP15 HLH Ask Prices)	
	Pool Energy (MWh)	HLH Avg MCP (\$/MWh)	Avg Variable Cost of Pool Generation (\$/MWh)		NP15 8/1/2018 (\$/MWh)	9/11/2018 (\$/MWh)
Jan-18	195,093	\$ 34.68	\$ 43.74	Sep-18	\$ 57.75	\$ 35.30
Feb-18	173,464	\$ 32.12	\$ 43.94	Oct-18	42.57	37.65
Mar-18	190,023	\$ 31.58	\$ 39.43	Nov-18	36.60	35.78
Apr-18	175,890	\$ 26.51	\$ 39.05	Q4 2018	\$ 42.48	\$ 38.76
May-18	185,890	\$ 22.58	\$ 40.72	Q1 2019	38.40	37.97
Jun-18	193,859	\$ 30.75	\$ 38.31	Q3 2019	49.72	49.41
Jul-18	217,009	\$ 63.64	\$ 52.34	CY2019	\$ 37.76	\$ 38.42
Aug-18	211,074	\$ 55.31	\$ 44.06	CY2020	38.03	37.30
Sep-18				CY2021	40.31	39.69
Oct-18				CY2022	42.03	40.77
Nov-18				CY2023	43.59	41.83
Dec-18				CY2024	44.74	42.95

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.

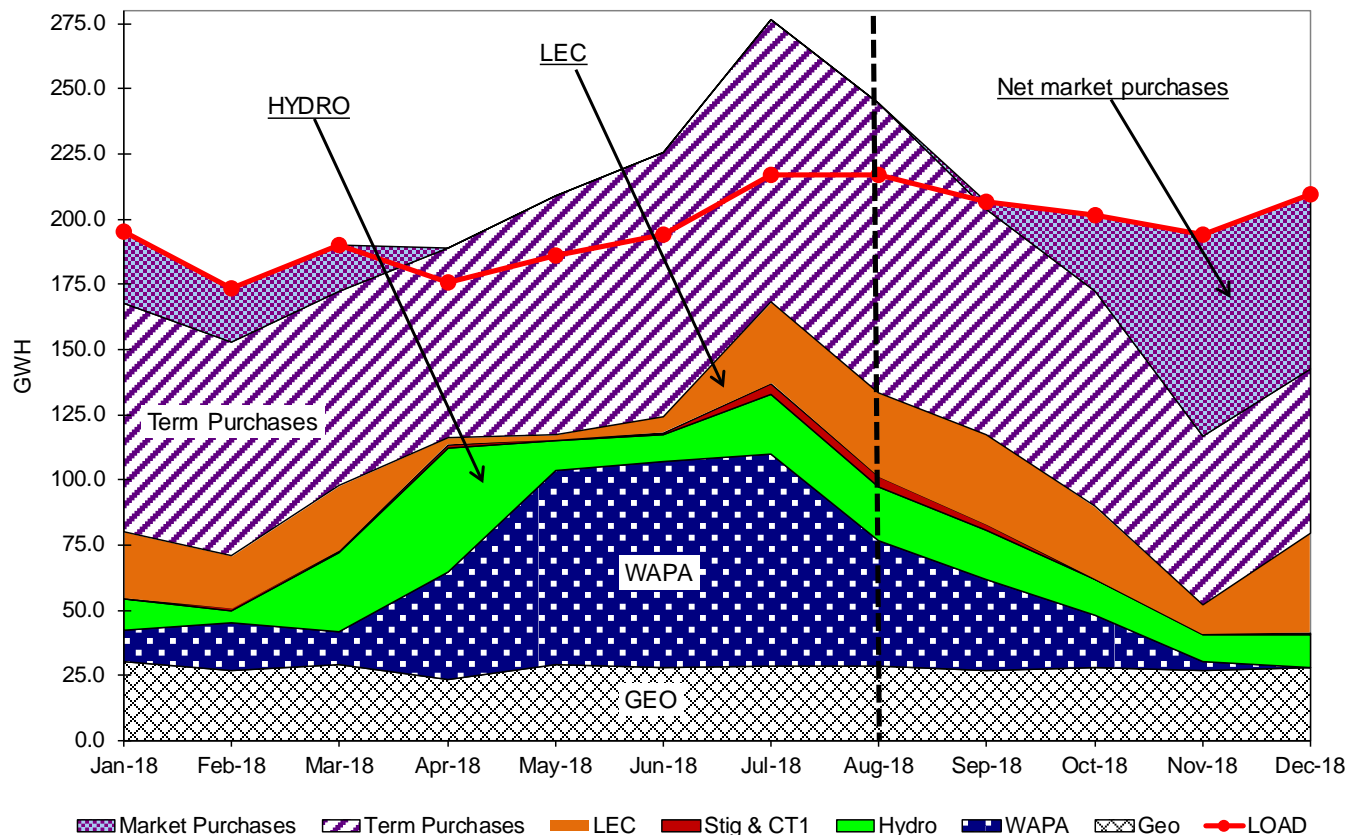
* STIG & CT costs reflect \$2.60 and \$1.62/MWh variable O&M costs per 6-12-06 GSCA.

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.

NCPA POOL RESOURCES 2018 CALENDAR YEAR: January - August Actual / balance forecasted



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 November 2018:
 - Monthly System Resource Adequacy Demonstration (filed September 17, 2018)
 - Monthly Supply Plan (filed September 17, 2018)

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:

Day-Ahead Market Enhancements

- In this initiative, CAISO will consider enhancements to combine the Integrated Forward Market with the Residual Unit Commitment process, change the day-ahead scheduling granularity from hourly to 15-minute, and add an imbalance reserve product. Additional design elements needed to extend the day-ahead market to EIM entities will also be considered. Recently, the CAISO indicated that they are considering breaking the DAME initiative into two (2) separate stakeholder initiatives (the details of such are not yet available).

Flexible Resource Adequacy Criteria and Must Offer Obligation (FRAC MOO Phase 2)

- This initiative will explore further enhancements to flexible capacity requirements to help address generation oversupply and ramps less than three hours. This effort also seeks new rules to allow intertie resources and storage resources' not operating under non-generator resource provisions to provide flexible capacity. Through this effort, CAISO will also assess the impact of merchant variable energy resources on flexible capacity requirements.

Review Transmission Access Charge Structure

- This initiative will consider possible changes to the CAISO's current volumetric Transmission Access Charge (TAC) structure for recovering participating transmission owners' costs of owning, operating and maintaining transmission facilities under CAISO operational control. The CAISO will consider stakeholder input on the initiative scope, which will include possible changes to reflect the benefits of distributed resources in reducing future transmission needs.

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)	Restoration Fund (\$)	Monthly Cost of BR ² (\$/MWh)	CAISO LMP Differential ³ (\$/MWh)	12-Mo Rolling Avg. Cost of BR ⁴ (\$/MWh)
Jul-18	82,705	81,285	(1,420)	\$1,516,218	\$ 18.65	\$ 0.52	\$ 29.93
Aug-18	69,979	47,727	(22,252)	\$1,516,218	\$ 31.77	\$ (0.76)	\$ 30.10
Sep-18	59,938	-	0	\$2,179,490	\$ 36.36	\$ -	\$ 30.42
Oct-18	57,292	-	0	\$1,261,031	\$ 22.01	\$ -	\$ 30.24
Nov-18	29,041	-	0	\$1,261,031	\$ 43.42	\$ -	\$ 30.71
Dec-18	16,348	-	0	\$1,261,031	\$ 77.14	\$ -	\$ 31.74
Jan-19	20,573	-	0	\$1,261,031	\$ 61.30	\$ -	\$ 32.09
Feb-19	37,431	-	0	\$1,261,031	\$ 33.69	\$ -	\$ 31.84
Mar-19	56,569	-	0	\$1,261,031	\$ 22.29	\$ -	\$ 30.34
Apr-19	61,298	-	0	\$2,456,549	\$ 40.08	\$ -	\$ 30.26
May-19	86,402	-	0	\$2,456,549	\$ 28.43	\$ -	\$ 31.29
Jun-19	83,930	-	0	\$2,456,549	\$ 29.27	\$ -	\$ 32.39
1/ As forecasted in NCPA 18/19 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.							

- The Displacement Program continued to perform well for the Pool members, with August 2018 activity of 6,300 MWh for an estimated savings of \$34,000, or about \$5.40/MWh.
- Pool members' total savings under MEEA pricing (Market Efficiency Enhancement Agreement) was about \$(31,000) for the Pool in August 2018. MEEA savings were negative for August 2018 due to lower congestion prices for import at COTP and PACI starting mid-July 2018 through current, which has not been the norm.

Debt and Financial Management

- The Federal Open Market Committee (FOMC) left the overnight target rate of 1.75% to 2% unchanged at its August 1st meeting. At the annual Jackson Hole symposium, Fed Chairman Jay Powell reaffirmed the Fed's positive outlook for growth and employment in the U.S., while laying further groundwork for the Fed to continue on its current path of gradually raising rates.
- While comments from the Federal Reserve (Fed) indicate they are on the move to increase rates, the bond market isn't reacting. While it is nearly certain that the Fed will raise short-term rates by 25 to perhaps 50 basis points in coming months, interest rates generally do not seem to reflect this, as strong counterforces have kept markets in check. Strong labor market conditions and wage growth support Fed tightening but the trade war with China, Europe and our nearby North American partners clouds the horizon.
- The U.S. Treasury yield curve twisted a bit over the month as short-term maturities (less than two years) rose, while longer-term maturities (beyond two years) fell modestly.
- Per direction from the Finance Committee, PFM, on behalf of NCPA, released a Request for Proposal for firms to provide Underwriting Services or a Direct Purchase for the refunding of the 2010 Hydroelectric Bonds, Series A. There are approximately \$44 million bonds callable at par beginning July 1, 2019 and current indications are showing an estimated NPV savings of about \$3 million or 7.97% of refunded par.

Schedule Coordination Goals

Software Development

- NCPA IS staff is assisting Santa Clara to transition its MSS portfolio from scheduling via Web Service into the use of the new client-based NCPA Scheduling Suite. Rollout is anticipated for October 1, 2018 Operating Date.
- NCPA IS Staff successfully rolled out the various software applications in support of the new Community Choice Energy (CCE) customer, San Jose CCE that went live on September 1.
- The NCPA Automated Dispatch System is undergoing necessary code review and updates to ensure its reliability in responding to CAISO ADS instructions. A new, more robust design has been developed to eventually replace the current version. Completion of the new version is anticipated before the end of 2018.

Network

- The IS Operations and Support group continues to migrate the remaining 10% of data over to the new Nimble storage array as part of a SAN upgrade project. The project will be completed by end of the calendar year.

- The IS department is currently working to perform a migration from SharePoint 2013 to SharePoint 2016, which is part of the larger plan to implement records retention for documents within libraries. The migration will be completed by fall of 2018.
- In adherence to the Agency's records retention policy, new email retention policies have been implemented on 95% of the Agency's mailboxes. The remaining 5% will be completed by this November.
- Progress continues to be made upgrading staff to Windows 10 with about 50% of the Agency on the new Operating System. The goal is to have all workstations moved over before the end of 2020.
- IS along with Utility Services Incorporated hosted an incident response exercise for members and business partners of NCPA. This provided the opportunity for each participating party to walk through their response procedures and identify any gaps that may be present in their process. Results of the response will be sent out to the participants in September.
- Dispatch Operations along with IS are working toward performing another hard failover to the Disaster Recovery Center (DRC) at the end of October. During this time all real-time and scheduling services will be moved to the DRC starting Friday October 26th and failing back to the HQ office on Sunday the 28th.
- The IS Operations and Support group is preparing to replace the current backup solution this fiscal year. Requirements are being drafted and a Request for Information will soon be developed and sent to vendors to begin discussions and demonstrations of their products.
- IS, along with Power Management and Settlements, is actively updating contingency plans for applications and services that support the bid-to-bill process. This is an effort to identify any gaps and provide recommendations to help reduce risks associated with unplanned downtime. This project is expected to be completed by the end of the year.

NCPA Bills & Settlements

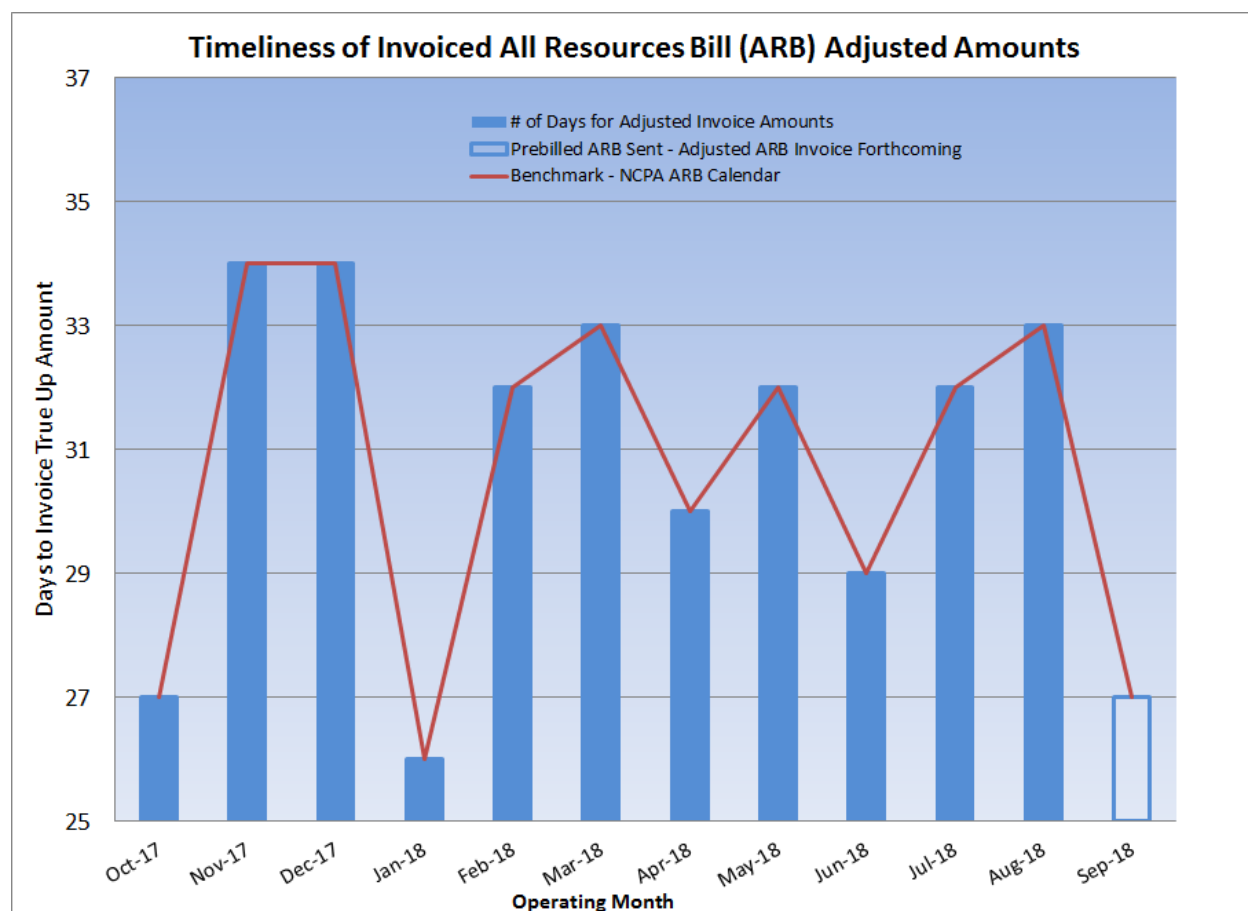
Progress Against the Strategic Plan

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 September 2018 NCPA All Resources Bill (ARB) monthly invoice sent to members on August 26, 2018 contains:

- September 2018 monthly pre-billed budget/forecast amounts;
- July 2018 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;

- June 2018 (2nd Adjustment) NCPA Project settlement true-up and T+12 business day recalculated CAISO settlement true-up allocations;
- April 2018 (3rd Adjustment) T+55 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;
- October 2017 (4th Adjustment) T+9 month recalculated CAISO settlement true-up allocations;
- December 2016 (5th Adjustment) T+18 month recalculated CAISO settlement true-up allocations;
- September 2015 (6th Adjustment) T+33 month recalculated CAISO settlement true-up;
- June 2015 (7th Adjustment) T+35 month CAISO settlement true-up;



Legislative & Regulatory

Political Arena State/Federal/Western Programs

- August 31st was the last day of the 2017-18 state legislative session. NCPA spent the final month of the session advocating for its members on several legislative issues, working closely with CMUA and SCPA this session toward a number of significant accomplishments. Amongst these are the passage of the NCPA-sponsored bill to support Redding, Roseville, and Santa Clara power plants (SB 1110), a bill on mylar balloons and the safety risks they present (AB 2450), and several bills that focus on wildfire mitigation efforts (SB 901, AB 2911, etc.). NCPA helped successfully defeat several bills that would have had substantial ramifications for public power utilities, including a CAISO regionalization attempt (AB 813), an end of session renewable energy procurement mandate (AB 893), and a bill that would have imposed a bulk storage procurement mandate on the CAISO (AB 2787). SB100, a bill that increases the State's Renewables Portfolio Standard to 60% by 2030 and sets a goal of zero-carbon electricity by 2045, also passed. NCPA secured amendments to SB 100, and other bills, to protect the interests of POUs and their customers. Governor Brown has until the end of September to either sign or veto legislation. Bills signed will go into effect January 2019, unless otherwise indicated in the legislation.

Human Resources

Hires:

- Jacob Snyder joined NCPA on August 20, 2018 as an Engineer IV at our Geothermal Facilities in Middletown, CA. Jacob brings over 6 years of power generation experience. Jacob most recently served as the Helms Generation Supervisor for Pacific Gas and Electric.
- Stacy Hultman joined NCPA on September 17, 2018, as an Accounting Clerk II at our Headquarters office in Roseville, CA. Stacy brings over 13 years of Payroll and Accounting experience. Stacy most recently served as a Payroll and Statistical Accountant for La-Z-Boy Furniture Galleries.
- Kyle Newman joined NCPA on September 17, 2018, as an Operator Technician IV at our Geothermal Facilities in Middletown, CA. Kyle brings over 11 years of experience. Kyle most recently served as a Power Technician III for Calpine.

Intern Hires:

None.

Promotions/Position Changes:

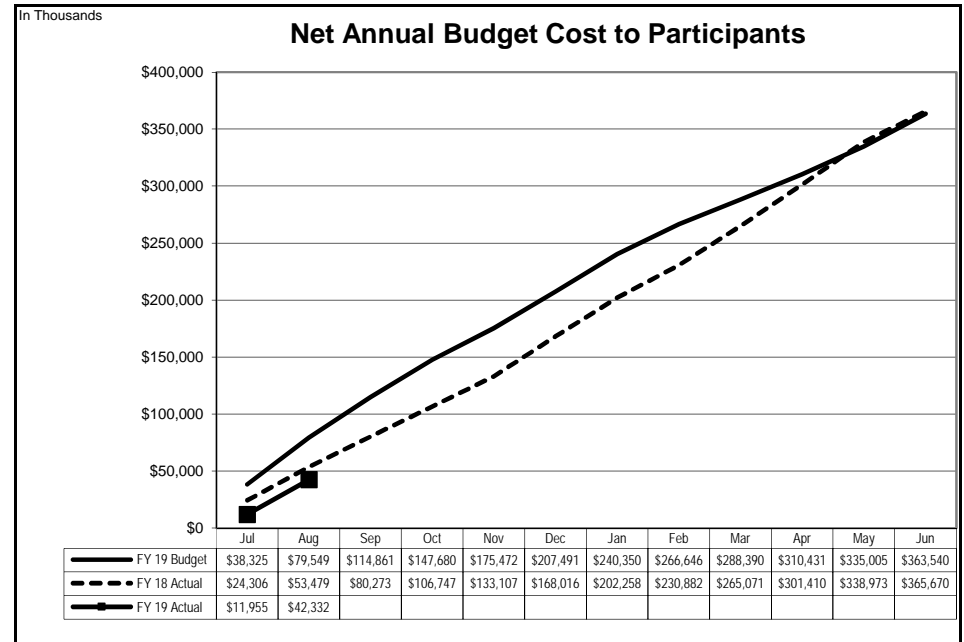
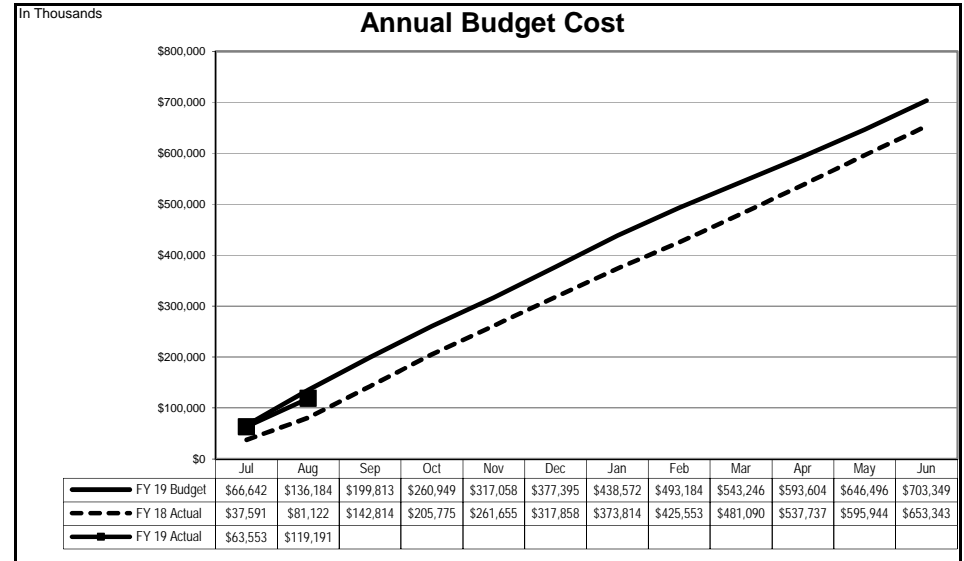
None.

Separations:

None.

**Annual Budget
2018-2019 Fiscal Year To Date
As of August 31, 2018**

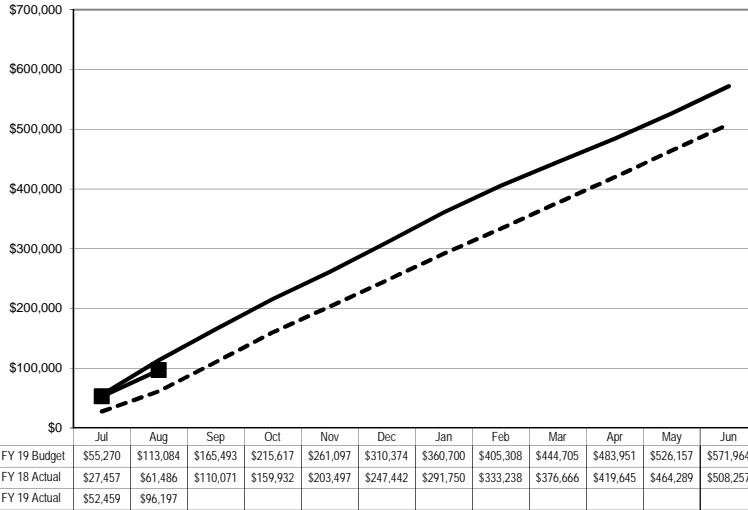
In Thousands	Program			
	Annual Budget	Actual	Under(Ovr) Budget	YTD % Remaining
GENERATION RESOURCES				
NCPA Plants				
Hydroelectric	51,857	8,795	\$ 43,062	83%
Geothermal Plant	34,425	5,064	29,362	85%
Combustion Turbine No. 1	3,806	947	2,859	75%
Combustion Turbine No. 2 (STIG)	8,743	1,581	7,162	82%
Lodi Energy Center	83,717	15,784	67,932	81%
	182,547	32,170	150,377	82%
Member Resources - Energy	64,449	12,799	51,650	80%
Member Resources - Natural Gas	3,098	817	2,281	74%
Western Resource	31,350	3,410	27,940	89%
Market Power Purchases	15,539	3,902	11,637	75%
Load Aggregation Costs - ISO	273,858	42,484	231,374	84%
Net GHG Obligations	1,123	615	508	45%
	571,964	96,197	475,767	83%
TRANSMISSION				
Independent System Operator	112,822	20,580	92,242	82%
MANAGEMENT SERVICES				
Legislative & Regulatory				
Legislative Representation	2,023	359	1,664	82%
Regulatory Representation	887	86	800	90%
Western Representation	848	77	771	91%
Member Services	438	53	385	88%
	4,196	576	3,620	86%
Judicial Action	625	71	554	89%
Power Management				
System Control & Load Dispatch	6,107	850	5,257	86%
Forecasting & Prescheduling	2,775	370	2,405	87%
Industry Restructuring	439	42	396	90%
Contract Admin, Interconnection Svcs & Ext. Affairs	1,135	137	998	88%
Green Power Project	3	0	3	98%
Gas Purchase Program	78	10	68	88%
Market Purchase Project	112	13	99	88%
	10,649	1,422	9,227	87%
Energy Risk Management	260	27	233	90%
Settlements	941	105	836	89%
Integrated System Support	273	40	233	85%
Participant Pass Through Costs	1,619	104	1,515	94%
Support Services	-	68	(68)	
	18,563	2,414	16,149	87%
TOTAL ANNUAL BUDGET COST	703,349	119,191	584,158	83%
LESS: THIRD PARTY REVENUE				
Plant ISO Energy Sales	100,456	39,072	61,384	61%
Member Resource ISO Energy Sales	28,187	10,342	17,845	63%
NCPA Contracts ISO Energy Sales	14,720	5,995	8,725	59%
Western Resource ISO Energy Sales	23,183	9,148	14,035	61%
Load Aggregation Energy Sales	131,329	7,332	123,997	94%
Ancillary Services Sales	4,409	1,117	3,292	75%
Transmission Sales	110	18	92	83%
Western Credits, Interest & Other Income	37,414	3,834	33,580	90%
	339,808	76,859	262,950	77%
NET ANNUAL BUDGET COST TO PARTICIPANTS	363,540	42,332	\$ 321,208	88%



Annual Budget Budget vs. Actual By Major Area As of August 31, 2018

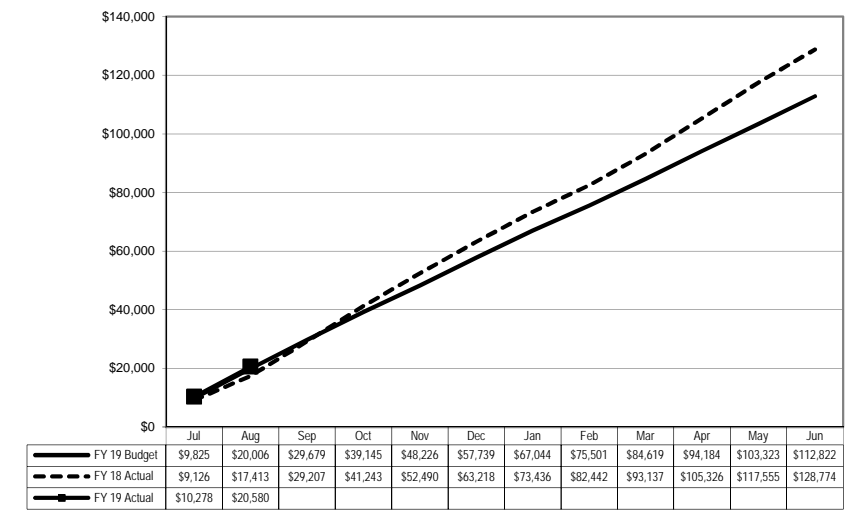
In Thousands

Generation Resources



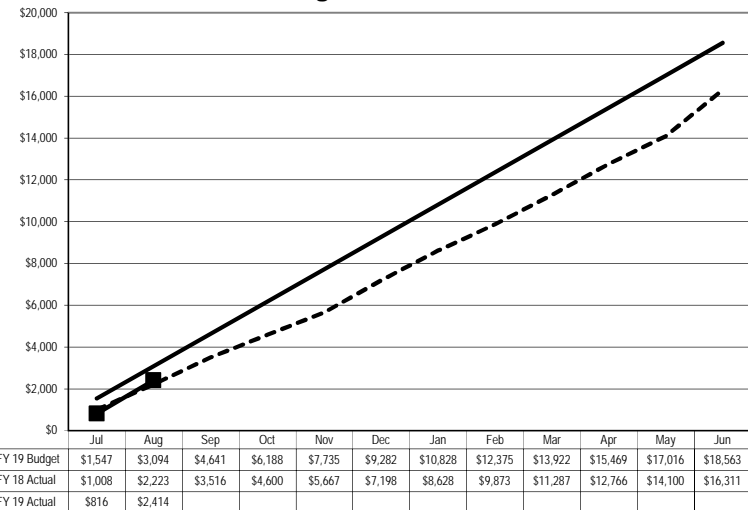
In Thousands

Transmission-ISO



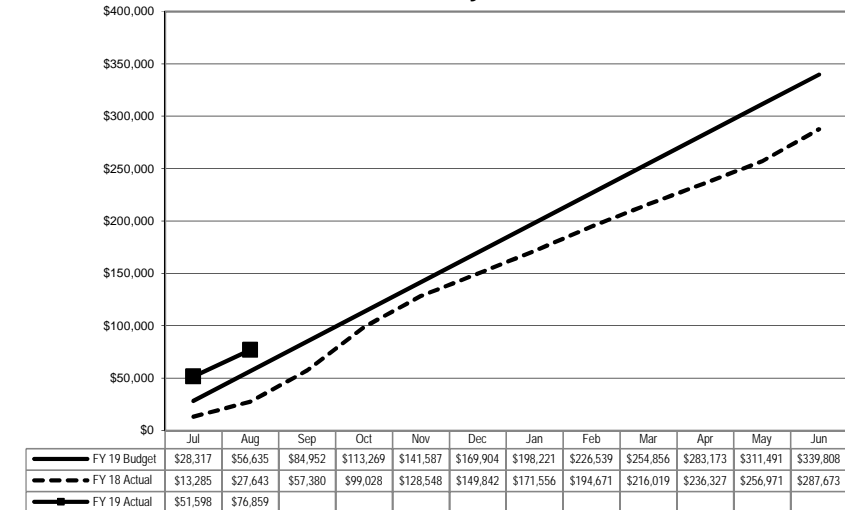
In Thousands

Management Services



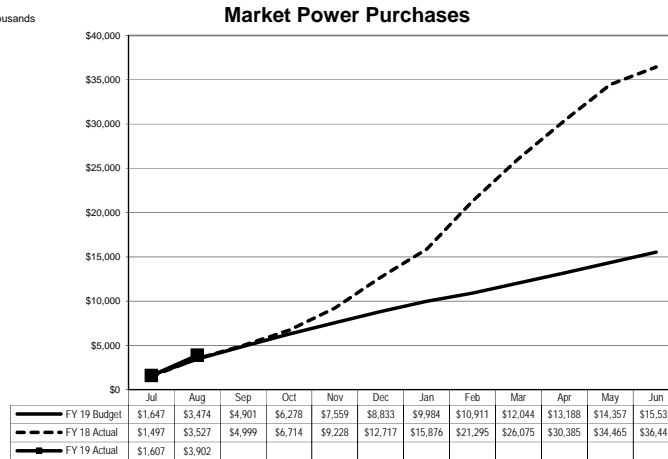
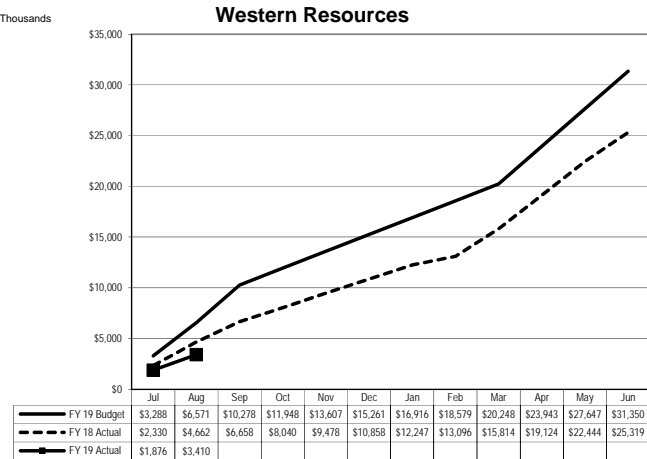
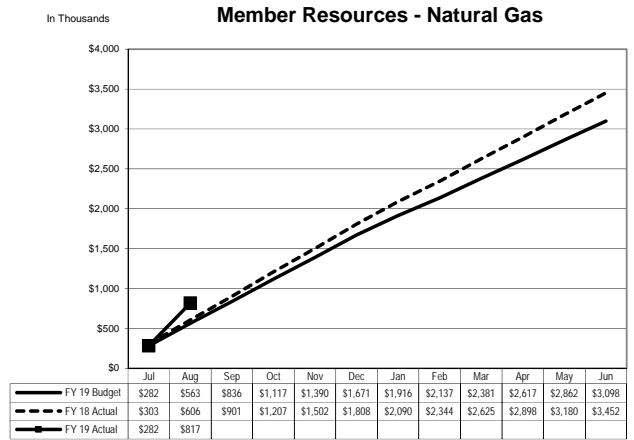
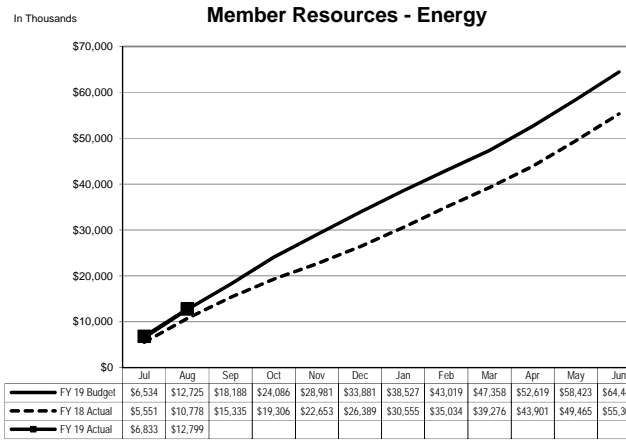
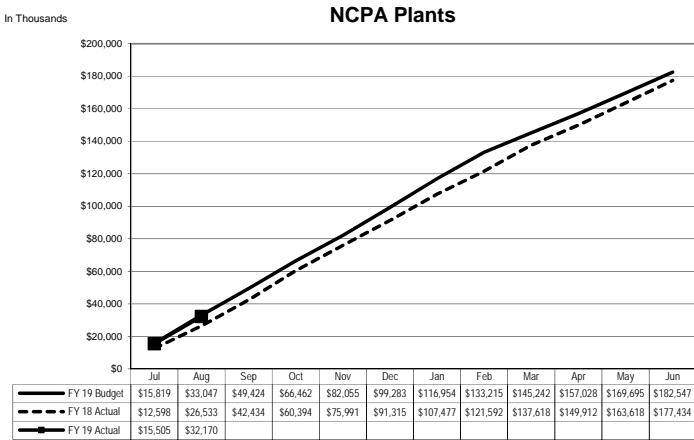
In Thousands

Third Party Revenue



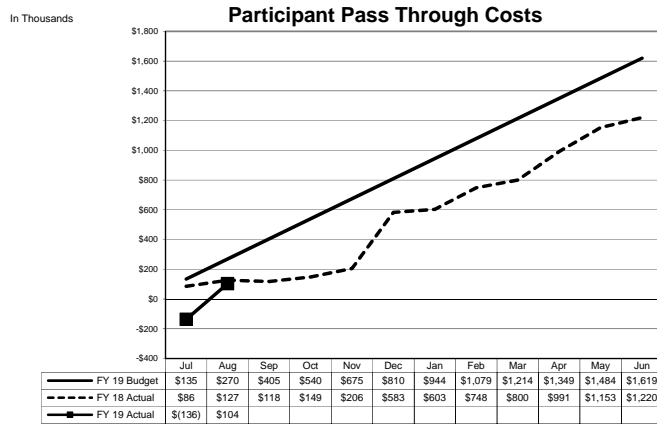
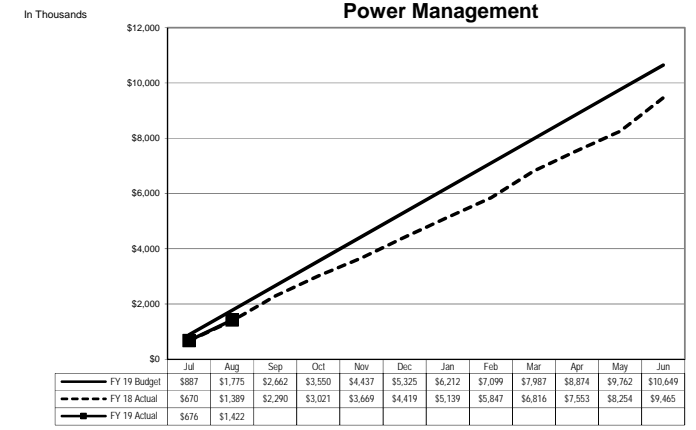
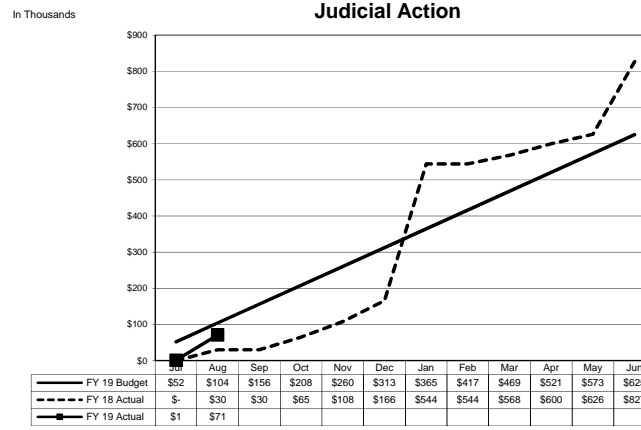
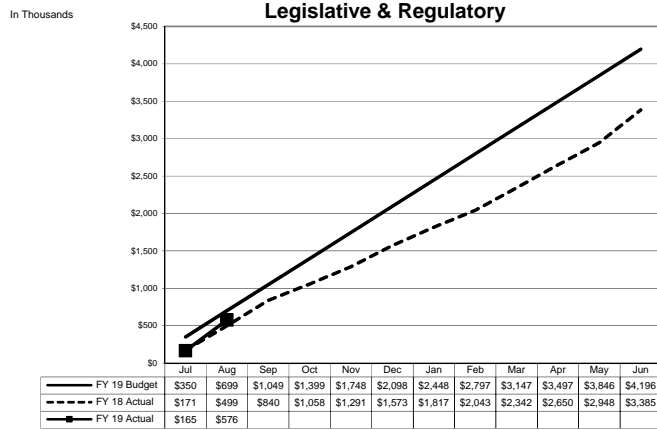
Footnote: Transmission is solely reflective of Independent System Operator (ISO) costs

**Annual Budget Cost
Generation Resources Analysis By Source
As of August 31, 2018**



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

Annual Budget Cost Management Services Analysis By Source As of August 31, 2018

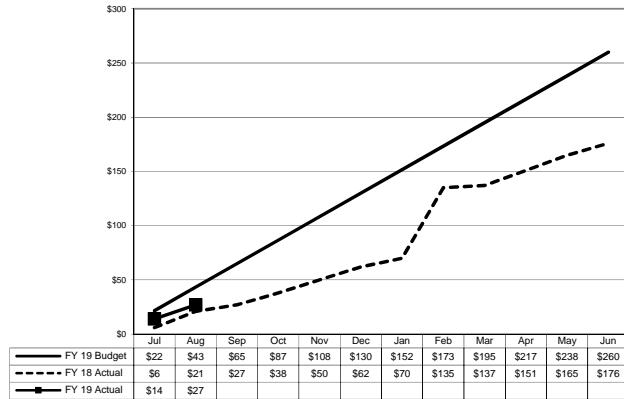


**Annual Budget Cost
Management Services Analysis By Source
As of August 31, 2018**

In Thousands

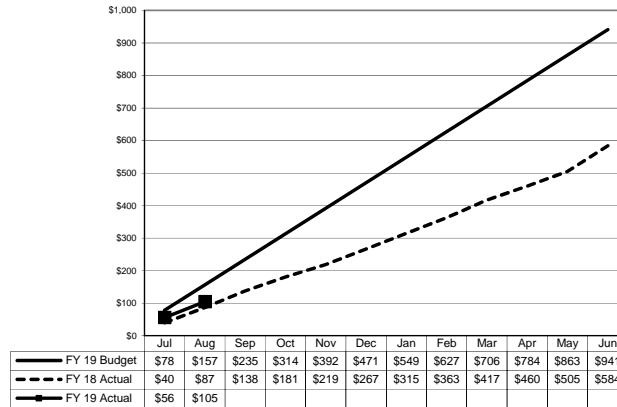
Energy Risk Management

In Thousands

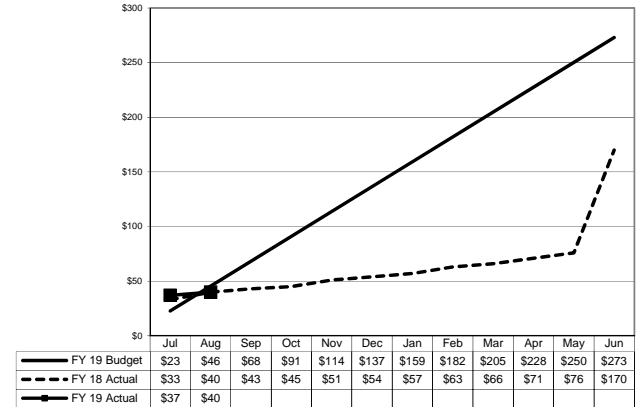


Settlements

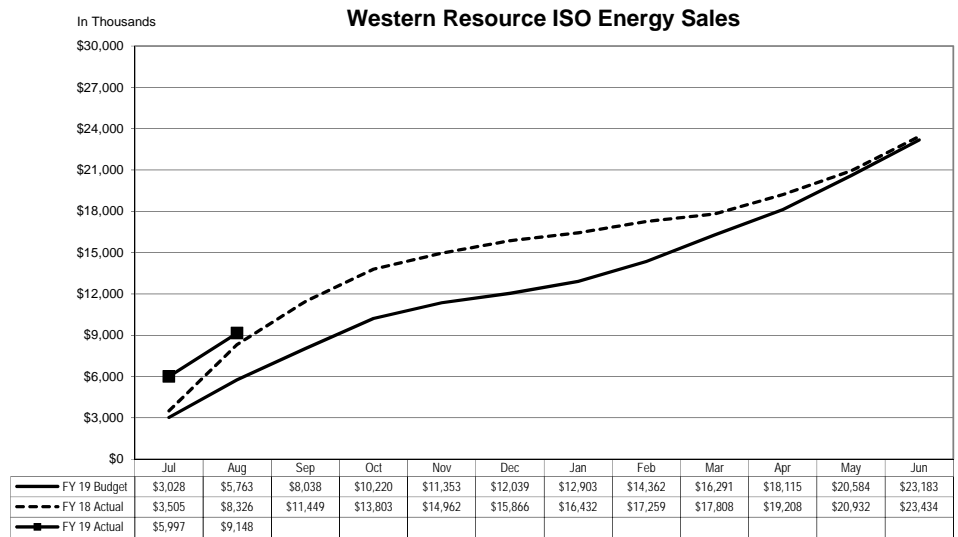
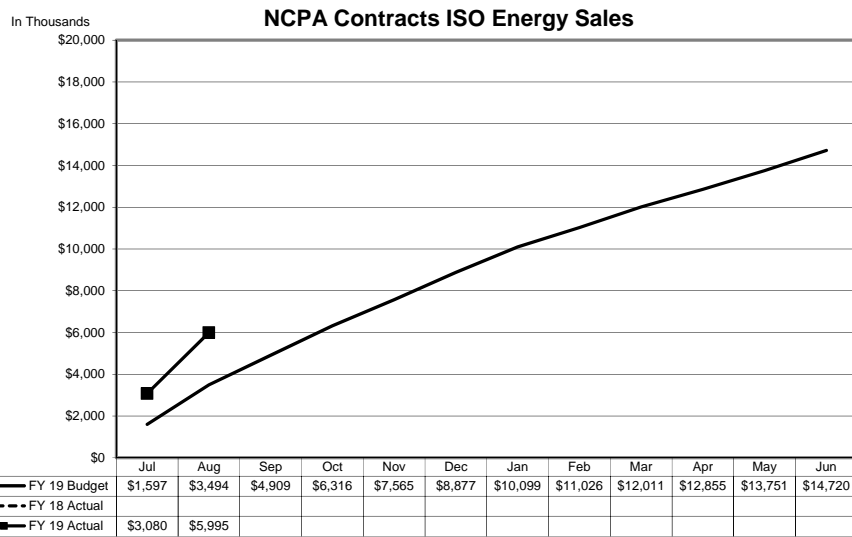
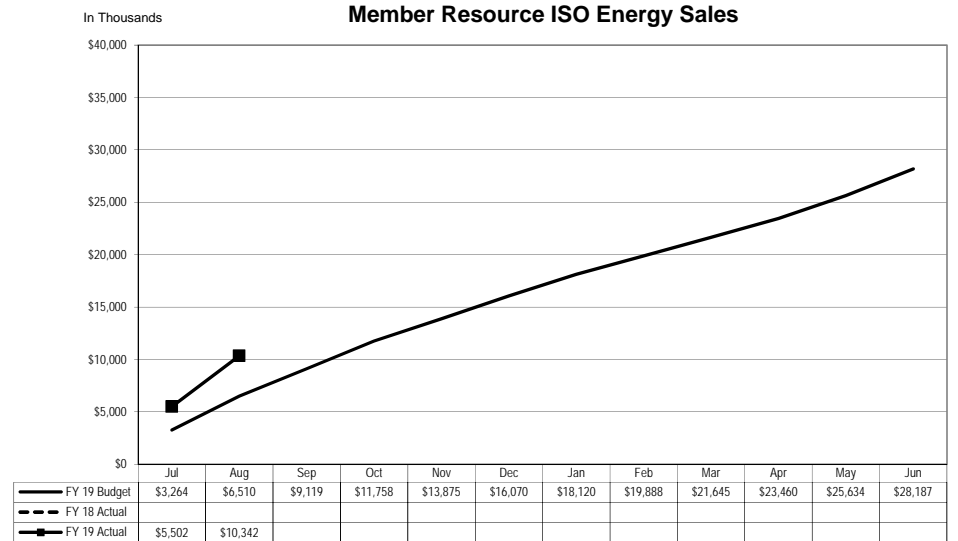
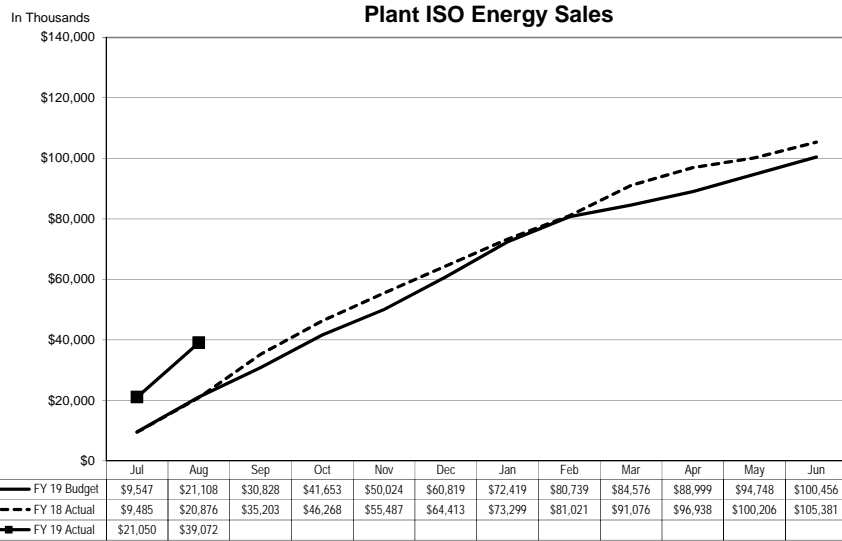
In Thousands



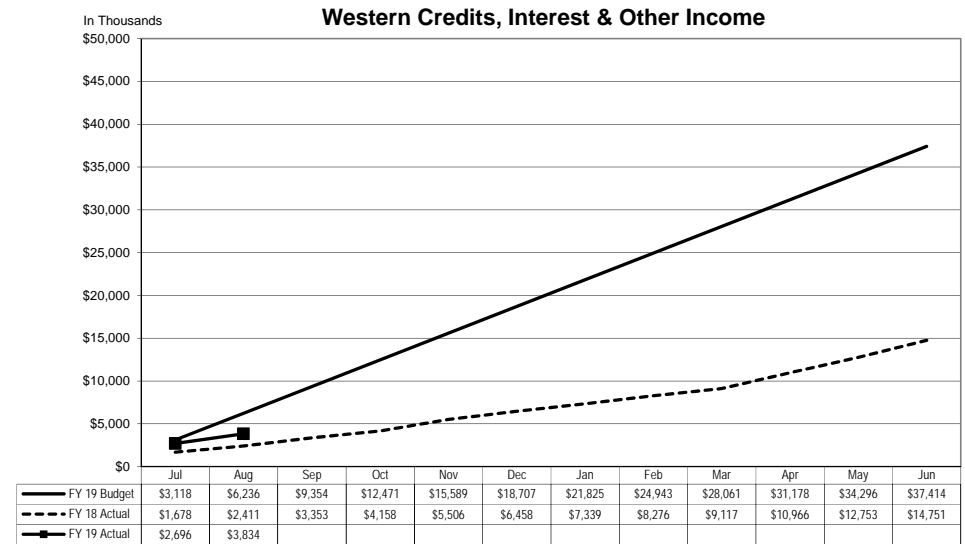
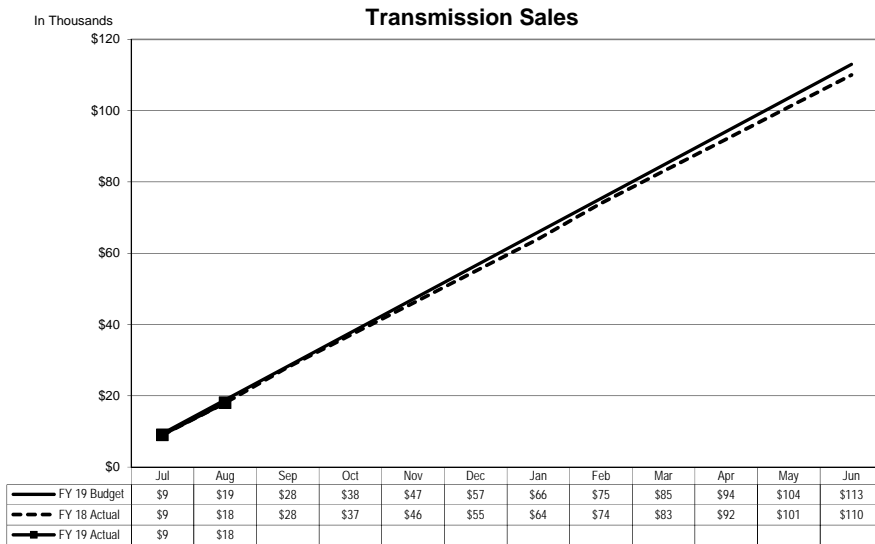
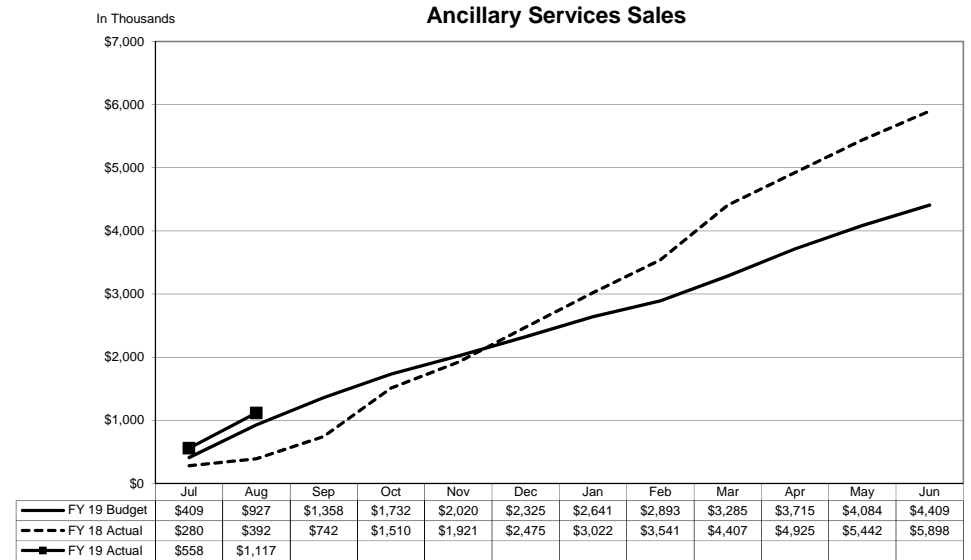
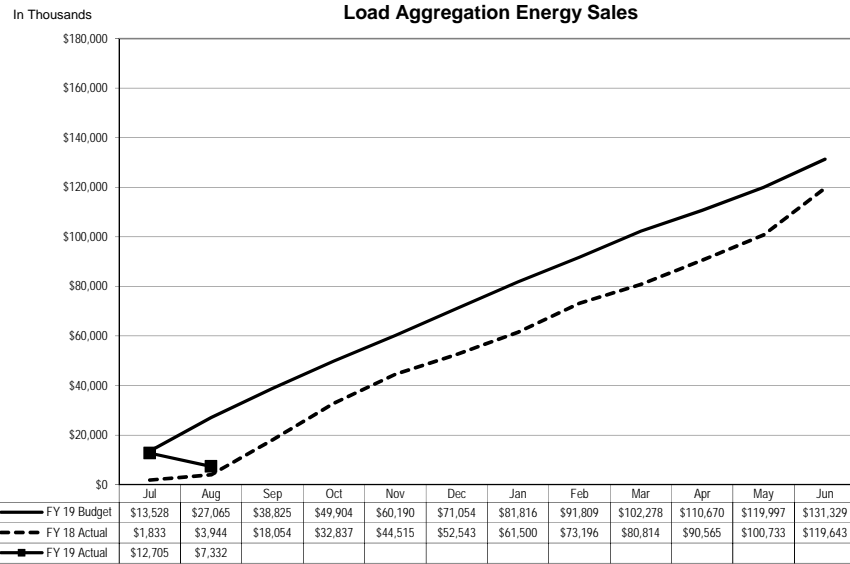
Integrated Systems Support



**Annual Budget Cost
Third Party Revenue Analysis By Source
As of August 31, 2018**



**Annual Budget Cost
Third Party Revenue Analysis By Source
As of August 31, 2018**



**Annual Budget
NCPA Generation Detail Analysis By Plant
As of August 31, 2018**

Generation Cost Analysis

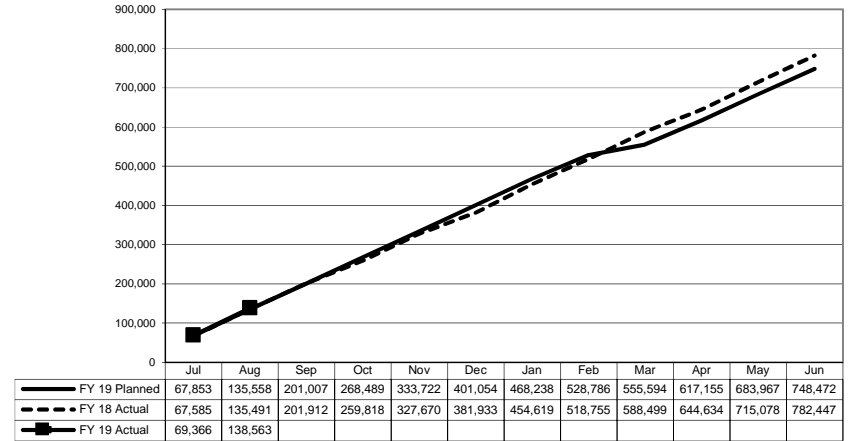
\$ in thousands

	Geothermal				
	Budget	Actual	\$/MWh	Under(Over)	YTD %
			Actual	Budget	Remaining
Routine O & M	\$ 17,793	\$ 2,479	\$ 17.89	\$ 15,314	86%
Capital Assets/Spare Parts Inventories	3,267	462	3.33	2,805	86%
Other Costs	8,137	1,185	8.55	6,953	85%
CA ISO Charges	291	115	0.83	176	61%
Debt Service	4,937	823	5.94	4,114	83%
Annual Budget	34,425	5,064	36.54	29,362	85%
Less: Third Party Revenue					
Interest Income	382	54	0.39	328	86%
ISO Energy Sales	26,285	7,640	55.14	18,645	71%
Ancillary Services Sales	-	-	-	-	-
Effluent Revenues	700	223	1.61	477	68%
Misc	110	19	0.13	92	83%
	27,477	7,935	57.27	19,542	71%
Net Annual Budget Cost to Participants	\$ 6,948	\$ (2,871)	\$ (20.72)	\$ 9,820	141%
Net Generation--MWh @ Meter	748,472	138,563			
\$/MWh (A)	\$ 2.69	\$ (26.66)			

MWhs Generated

In MWh

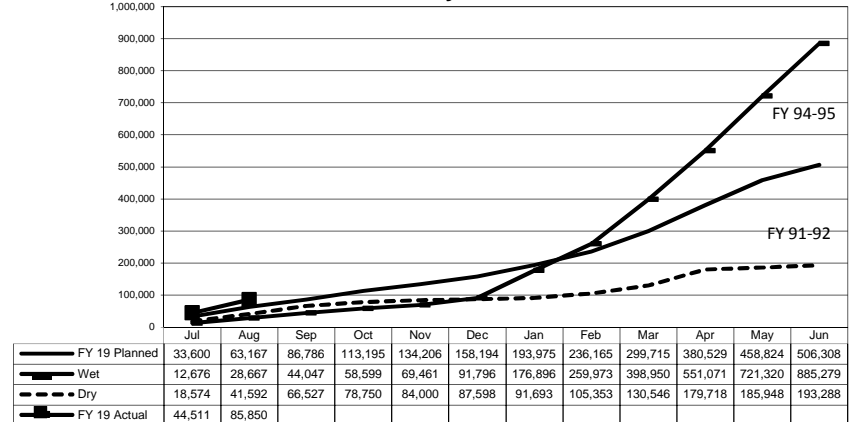
Geothermal



	Hydroelectric				
	Budget	Actual	\$/MWh	Under(Over)	YTD %
			Actual	Budget	Remaining
Routine O & M	\$ 8,685	\$ 1,365	\$ 15.90	\$ 7,320	84%
Capital Assets/Spare Parts Inventories	1,975	216	2.52	1,759	89%
Other Costs	3,238	446	5.20	2,792	86%
CA ISO Charges	2,801	908	10.57	1,894	68%
Debt Service	35,157	5,859	68.25	29,297	83%
Annual Budget	51,857	8,795	102.44	43,062	83%
Less: Third Party Revenue					
Interest Income	670	65	0.76	605	90%
ISO Energy Sales	20,783	8,760	102.04	12,023	58%
Ancillary Services Sales	3,048	712	8.30	2,335	77%
Misc	-	0	0.00	(0)	-
	24,501	9,538	111.10	14,963	61%
Net Annual Budget Cost to Participants	\$ 27,356	\$ (743)	\$ (8.65)	\$ 28,099	
Net Generation--MWh @ Meter	506,308	85,850			
\$/MWh (A)	\$ (15.41)	\$ (76.91)			

In MWh

Hydro



Footnotes:

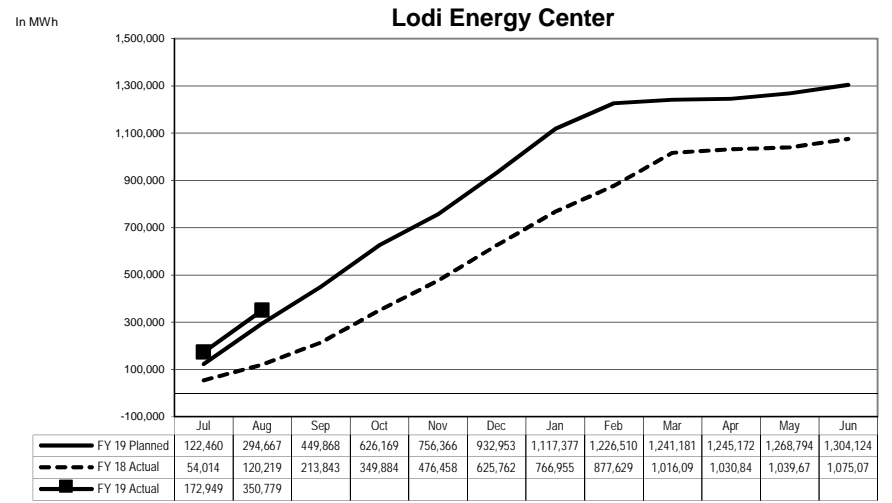
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

**Annual Budget
NCPA Generation Detail Analysis By Plant
As of August 31, 2018**

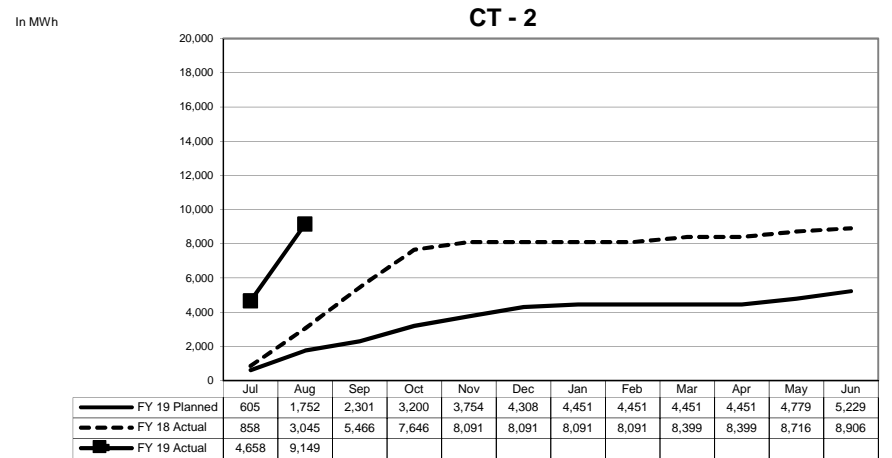
Generation Cost Analysis

	Lodi Energy Center				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 13,965	\$ 1,634	\$ 4.66	\$ 12,331	88%
Fuel	33,092	8,421	24.01	24,671	75%
AB 32 GHG Offset	-	-	-	-	0%
CA ISO Charges and Energy Purchases	5,665	744	2.12	4,921	87%
Capital Assets/Spare Parts Inventories	1,613	249	0.71	1,365	85%
Other Costs	3,302	390	1.11	2,912	88%
Debt Service	26,080	4,347	12.39	21,733	83%
Annual Budget	83,717	15,784	45.00	67,932	81%
Less: Third Party Revenue					
Interest Income	386	82	0.23	304	79%
ISO Energy Sales	52,415	20,255	57.74	32,160	61%
Ancillary Services Sales	1,029	404	1.15	624	61%
Transfer Gas Credit	-	-	-	-	0%
Misc	-	-	-	-	0%
	53,829	20,740	59.13	33,089	61%
Net Annual Budget Cost to Participants	\$ 29,887	\$ (4,956)	\$ (14.13)	\$ 34,843	117%
Net Generation--MWh @ Meter	1,304,124	350,779			
\$/MWh (A)	\$ 2.92	\$ (26.52)			

MWhs Generated



	Combustion Turbine No. 2 (STIG)				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 1,481	\$ 222	\$ 24.24	\$ 1,259	85%
Fuel and Pipeline Transport Charges	977	313	34.23	664	68%
Capital Assets/Spare Parts Inventories	60	1	0.12	59	98%
Other Costs	506	67	7.33	439	87%
CA ISO Charges	2	25	2.70	(23)	-1121%
Debt Service	5,717	953	104.14	4,764	83%
Annual Budget	8,743	1,581	172.77	7,162	82%
Less: Third Party Revenue					
Interest Income	109	17	1.86	92	84%
ISO Energy Sales	401	875	95.61	(473)	-118%
Ancillary Service Sales	-	-	-	-	0%
Fuel and Pipeline Transport Credits	990	340	37.16	650	66%
Misc	-	-	-	-	0%
	1,500	1,232	134.63	268	18%
Net Annual Budget Cost to Participants	\$ 7,243	\$ 349	\$ 38.14	\$ 6,894	95%
Net Generation--MWh @ Meter	5,229	9,149			
\$/MWh (A)	\$ 291.87	\$ (66.00)			



Footnotes:

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

**Annual Budget
NCPA Generation Detail Analysis By Plant
As of August 31, 2018**

Generation Cost Analysis

	Combustion Turbine No. 1				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 1,560	\$ 307	\$ 68.12	\$ 1,253	80%
Fuel and Pipeline Transport Charges	497	267	59.20	230	46%
Capital Assets/Spare Parts Inventories	1,165	104	23.02	1,061	91%
Other Costs	580	79	17.63	501	86%
CA ISO Charges	3	189	42.03	(187)	-6400%
Debt Service	-	-	-	-	-
Annual Budget	3,806	947	210.00	2,859	75%
Less: Third Party Revenue					
Interest Income	-	-	-	-	-
ISO Energy Sales	572	1,543	342.20	(970)	-170%
Ancillary Services Sales	-	-	-	-	0%
Misc	-	-	-	-	0%
	572	1,543	342.20	(970)	-170%
Net Annual Budget Cost to Participants	\$ 3,233	\$ (596)	\$ (132.20)	\$ 3,829	118%
Net Generation--MWh @ Meter	7,533	4,508			
\$/MWh (A)	\$ 429.23	\$ (132.20)			

Footnotes:

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

MWhs Generated

In MWh

CT - 1

