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BUSINESS PROGRESS REPORT

FEBRUARY 2018



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Generation Costs & Reliability

Combustion Turbine Project

Unit Operation for January

Unit	Availability		Production		Reason for Run
CT1 Alameda	Unit 1	Unit 2	Unit 1	0.0 MWh	No Runs / CAISO
	0.0%	62.9%	Unit 2	142.5	
Curtailements, Outages, and Comments:					
Out of Service from exhaust shield failure. / 1/15/18 - 1/26/18 Annual Maintenance					
Unit	Availability		Production		Reason for Run
CT1 Lodi	91.1%		113.1 MWh		CAISO
Curtailements, Outages, and Comments:					
1/4/18 - Plant Trouble (2.5hrs), 1/5/18 - Plant Trouble (64hrs)					
Unit	Availability		Production		Reason for Run
CT2 STIG	97.4%		0.0 MWh		No operational runs.
Curtailements, Outages, and Comments:					
1/1/18 - False Fire Alarm (19.5hrs)					
Unit	Availability		Production		Reason for Run
LEC	99.8%		141,207.7 MWh		CAISO
Curtailements, Outages, and Comments:					
1/27/18 - Emission issue forced a 1 hour shut down. 1/31/18 - Condensate pump issued delayed start.					

Maintenance Summary – Specific per asset above.

Geothermal Facilities

Availability/Production for January

Unit	Availability	Net Electricity Generated/Water Delivered	Out-of-Service/Descriptors
Unit 1	100 %	22,499 MWh	U1 had no outages for the month
Unit 2	84.68 %	*18,091 MWh	U2 was offline from 1/1/18 until 1800 1/5/18 due to 2.4kv transformer failure/replacement
Unit 3	N/A %	N/A	Unit 3 remains out of service.
Unit 4	98.66 %	32,102 MWh	U4 was off line from 0630 - 1645 on 1/6/18 due to EHC line failure
Southeast Geysers Effluent Pipeline	100 %	242.9 mgallons	Average flow rate: 5,478 gpm
Southeast Solar Plant	N/A	32,893 KWh	Year-to-date KWh: 907,612
Bear Canyon Pump Station Zero Solar	N/A	48,795 KWh	Year-to-date KWh: 2,038,405

* Accounts for an additional 0 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

Hydroelectric Project

Availability/Production for January

Units	Availability	Net Electricity Generated	Out-of-Service
Collierville Unit 1	100.00 %	16,716 MWh	CV #1 unit no reportable outages.
Collierville Unit 2	99.74 %	6,158 MWh	CV #2 unit derate to 110mw's due to stator ground fault repair. CV #2 unit was out of service on, 01/02/18 at 1247 through 1440 due to mechanical overspeed switch trouble.
Spicer Unit 1	69.97 %	237 MWh	NSM #1 unit was out of service on, 01/22/18 at 0610 through 01/31/18 at 1334 due to PG&E Salt Springs-Tiger Creek 115KV line outage.
Spicer Unit 2	69.97 %	0 MWh	NSM #2 unit was out of service on, 01/22/18 at 0610 through 01/31/18 at 1334 due to PG&E Salt Springs-Tiger Creek 115KV line outage.
Spicer Unit 3	69.97 %	137 MWh	NSM #3 unit was out of service on, 01/22/18 at 0610 through 01/31/18 at 1334 due to PG&E Salt Springs-Tiger Creek 115KV line outage.

Operations & Maintenance Activities:

- CMMS work orders
- Planning and Preparation for CV2 Generator rewind
- NSM outage work

Environmental, Health & Safety (EH&S) Projects

Incident Reports

- No vehicle accidents, lost time accidents, or recordable incidents occurred in January.
- 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 January 20, 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.

January Generation Services Safety Report

	Hydro	GEO	CT Group *	NCPA HQ **
CalOSHA Recordable (this month)	0	0	0	0
CalOSHA Recordable (calendar year)	0	0	0	0
Days since Recordable	1130	64	1020	6,088
Work Hours Since Last Recordable	98,201	12,220	148,503	2,193,827
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	0	0	0
Days without LTA	3,746	883	8,924	5,017
Work Hours without LTA	343,766	178,888	589,867	1,815,847
Vehicle Incident (month)	0	0	0	0
Vehicle Incident (calendar year)	0	0	0	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 January 20, 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

	January 2018		Calendar Year 2018	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	329.79 1/8 @1800	195,106	329.79 1/8 @1800	195,106
SVP	456.11 1/18 @1400	307,141	456.11 1/18 @1400	307,141
MSSA	782.06 1/8 @ 1800	502,247	782.06 1/8 @ 1800	502,247

Last Year 2017 Data*

	January 2017		Calendar Year 2017	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	351.61 1/18 @1800	205,674	485.85 9/1 @1700	205,674
SVP	448.66 1/10 @1800	300,958	586.59 9/1 @1600	300,958
MSSA	788.11 1/10 @ 1800	506,632	1070.79 9/1 @ 1700	506,632

*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	329.79 1/8 @ 1800
SVP	586.59 MW on 9/1/17 @ 1600	456.11 1/18 @ 1400
MSSA	1070.79 MW on 9/1/17 @ 1700	782.06 1/8 @ 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		
	January 2018	Calendar Year 2018
MSSA % Within the Band	99.35%	99.35%

- Spicer Meadows:
 - January 22 – 31, Units separated from PG&E system due to Salt Springs-Tiger Creek 115kV line work. Unit 3 remained on providing station service power.
- Geothermal Units:
 - January 5, Unit 2 returned to service after replacement of 2.4kV transformer.
 - January 6 @ 0632 – 1647, Unit 4 tripped off line due to control valve hydraulic leak. While off line, crew repaired steam leak as well.
 - January 21 @ 1721 - 1732, Unit 2 off line due inadvertent trip.
- Lodi Energy Center:
 - January 27 @ 0411, plant shutdown due to excess CO emissions. Unit returned to available status at 0500.
- Alameda CTs:
 - January 1 - 31, Unit 1 o/s for repairs to exhaust tunnel seal.
 - January 15 -26, Unit 2 o/s for annual maintenance to overlap Unit 1 outage.
 - Annual maintenance outages scheduled for March have been cancelled.
- Lodi CT:
 - January 4 – 9, unit unavailable due to trouble with starting engine and clutch.
- Collierville Units:
 - January 1 – 31, Unit 2 remains derated due stator ground fault repair.
 - January 2 @ 1247 – 1440, Unit 2 tripped off line due to mechanical overspeed sensor trouble.
- STIG:
 - January 1-2 Unit o/s due to fire system trouble.

Pooling & Portfolio Planning & Forecasting

- Actual NCPA Pool load of 195.1 GWh during January 2018 was 95.6% of the pre-month forecast of 204.1GWh. Pool load, running 72.6 GWh through February 12, may not quite reach the forecast of 182.3 GWh, with temperatures continuing to run above normal to start the month in February.
- The Lodi Energy Center (LEC) generated 25,389 MWh for the pool in January, exactly 100.007% of the 25,206 MWh forecast, again aided by the significant drop in local transport rates, enabling cost-effective daily runs. Supply disruptions in SoCal kept implied heat rates there above the norm, adding to LEC run hours. For February 2018, pool share of LEC generation was forecasted at 10,765 MWh and had reached 6,058 MWh by February 12.
- For the month of January, 7.14” of rain was recorded at Big Trees gage. January Big Trees average precipitation is 10.24”.

- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) is being maintained at \$55/MWh.
- NSMR storage as of January 31 was at 83,598 acre feet. The historical average NSMR storage at the end of January is 76,255 acre feet. As of February 13, NSMR storage is 84,210 acre feet. The current NCPA Pool share of NSMR storage is 42,880 acre feet.
- Combined Calaveras Project generation for the Pool in January totaled 11.8 GWh, up from 9.5 GWh in December. The Pool's 11.8 MWh in January was less than the pre-month forecast of 16.8 GWh. Through February 13, Calaveras generation for the Pool is 1.2 GWh, with the full month forecasted at 7.4 GWh.
- Western Base Resource (BR) Pool delivery in January 2018 was 12.4 GWh, or 16% of Western's 76.7-GWh forecast. Through February 12, BR pool allocations of 7.0 GWh (including 0.3 GWh Displacement) are likely to fall short of Western's most recent 41.5-GWh February forecast again, due to dry conditions.
- The PG&E Citygate gas index traded at \$2.645/MMBtu for February 13 delivery - compared to an average of \$2.96/MMBtu (with a high of \$3.35/MMBtu early in the month) in January: production increased and temperatures moderated as the month progressed. The PG&E February Bidweek price is \$2.97, or 11 cents higher than January's, but February gas prices are moving lower as constraints ease.
- Day-ahead NP15 electricity prices averaged \$34.85/MWh (HLH) and \$30.52 (LLH) during January, with the hourly TH_NP15 maximum at \$70.20/MWh and the minimum \$11.41. So far in February, on-peak prices have averaged \$26.21, and weekend prices are falling into single-digits.

NCPA Pool Loads & Resources Value Summary								
	Peak and Energy Summary Jan-18				Estimated Production Costs		Cost of Serving Demand	
	Coincident Peak (MW) Jan-08-18 Hour 18	Total MWh	Forecast Values	Avg. MW	NCPA Pool		Totals	Avg (\$/MWh)
Demand	329.8	195,093	204,137	262.2	Cost/Revenue (Estimate)	Variable Cost (\$/MWh)		
					N/A	N/A		
WAPA	106.0	12,360	76,721	16.6	\$ 832,419	\$ 67.35	\$ 6,765,244	\$ 34.68
Geothermal	-	30,089	28,366	40.4	571,698	19.00		
Hydro	-	11,800	20,382	15.9	70,800	6.00		
Stig & CTs	-	146	216	0.2	10,446	71.63		
LEC	-	25,389	25,206	34.1	850,027	33.48		
Contracts	138.0	87,713	88,993	117.9	4,501,572	51.32	\$ 7,963,372	\$ 40.82
Market - Net (Net Sales = Negative)	85.8	27,596	(35,747)	37.1	942,254	34.14		
Net Total	329.8	195,093	204,137	262.2	\$ 7,779,216	\$ 40.82		

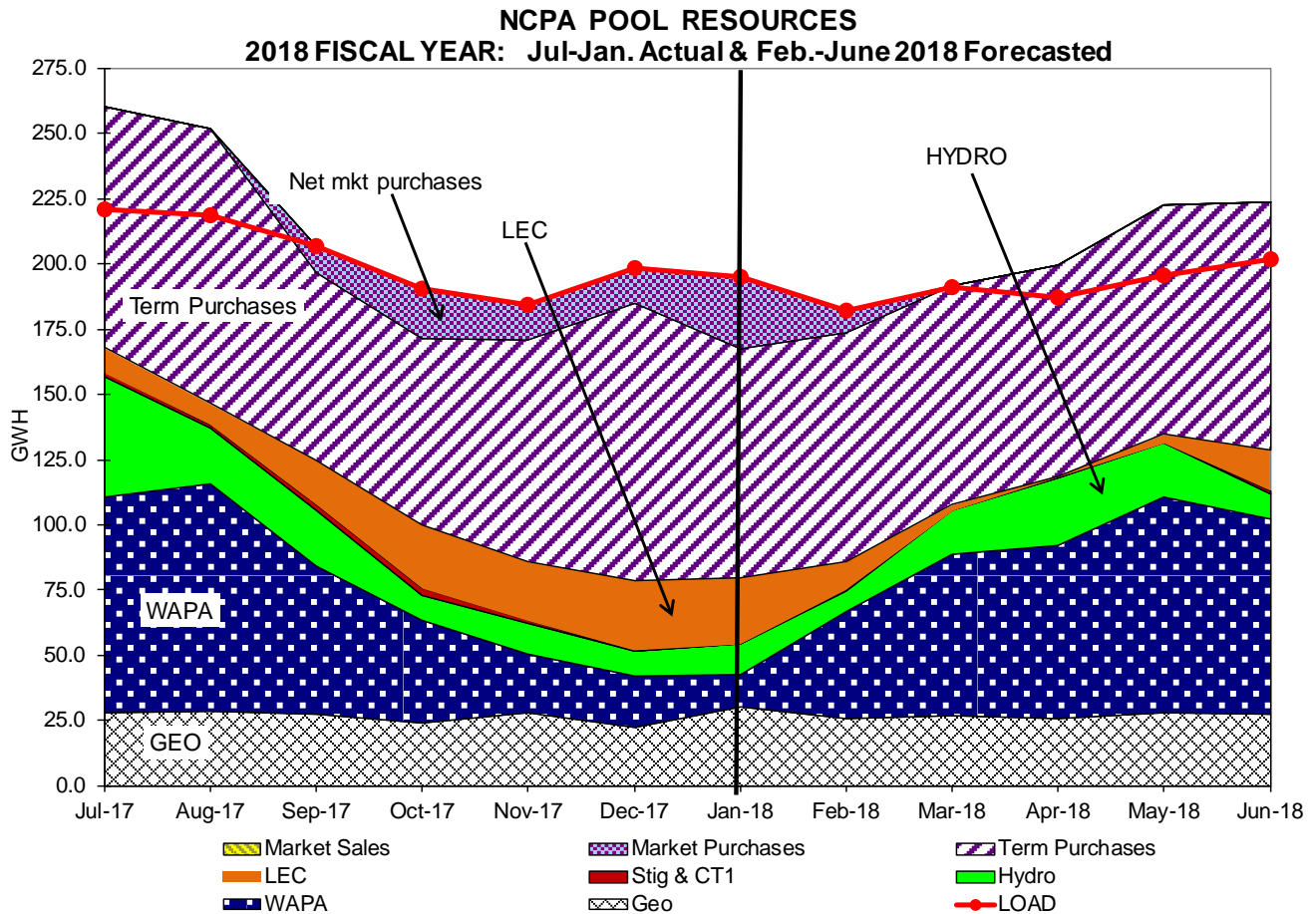
Monthly Market Summary						
	Pool Energy (MWh)	HLH Avg MCP (\$/MWh)	Avg Variable Cost of Pool Generation (\$/MWh)	Forward Prices (EOX NP15 HLH Ask Prices)		
				NP15 1/1/2018 (\$/MWh)	2/6/2018 (\$/MWh)	
Jul-17	221,169	\$ 39.42	\$ 36.21	Feb-18	\$ 35.94	\$ 27.01
Aug-17	223,320	\$ 51.70	\$ 37.30	Mar-18	\$ 31.54	\$ 24.43
Sep-17	206,930	\$ 45.07	\$ 40.69	Apr-18	\$ 28.50	\$ 26.72
Oct-17	190,730	\$ 44.93	\$ 39.05	Q3 2018	\$ 40.47	\$ 39.65
Nov-17	184,467	\$ 38.23	\$ 39.53	Q4 2018	\$ 40.07	\$ 37.82
Dec-17	198,630	\$ 35.89	\$ 40.56	Q1 2019	\$ 39.54	\$ 37.21
Jan-18	195,093	\$ 34.68	\$ 40.82	CY2019	\$ 38.17	\$ 36.22
Feb-18				CY2020	\$ 39.81	\$ 38.71
Mar-18				CY2021	\$ 41.61	\$ 40.82
Apr-18				CY2022	\$ 42.78	\$ 42.23
May-18				CY2023	\$ 43.94	\$ 43.36
Jun-18				CY2024	\$ 44.98	\$ 44.47

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 April 2018:
 - Monthly System Resource Adequacy Demonstration (filed February 14, 2018)
 - Monthly Supply Plan (filed February 14, 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:

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.

Review of TAC Structure

- As described in the CAISO 2017 Stakeholder Initiative Catalog, during calendar year 2018 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-17	71,656	82,819	11,163	\$2,334,679	\$ 28.19	\$ 1.60	\$ 27.59
Aug-17	55,736	79,371	23,635	\$2,334,679	\$ 29.41	\$ 0.08	\$ 27.14
Sep-17	56,044	57,011	967	\$1,979,032	\$ 34.71	\$ 0.12	\$ 26.27
Oct-17	33,604	39,352	5,748	\$833,923	\$ 21.19	\$ 0.79	\$ 25.27
Nov-17	19,601	22,441	2,840	\$833,923	\$ 37.16	\$ 0.27	\$ 24.46
Dec-17	15,404	19,821	4,417	\$833,923	\$ 42.07	\$ 0.25	\$ 24.15
Jan-18	7,358	-	(7,358)	\$833,923	\$ 113.34	\$ 0.10	\$ 25.83
Feb-18	13,359	-	(13,359)	\$833,923	\$ 62.42	\$ 0.10	\$ 28.01
Mar-18	30,216	-	(30,216)	\$833,923	\$ 27.60	\$ 0.10	\$ 29.52
Apr-18	50,443	-	(50,443)	\$2,035,038	\$ 40.34	\$ 0.10	\$ 30.44
May-18	66,832	-	(66,832)	\$2,035,038	\$ 30.45	\$ 0.10	\$ 32.68
Jun-18	74,030	-	(74,030)	\$2,035,038	\$ 27.49	\$ 0.10	\$ 33.09
1/ As forecasted in NCPA 17/18 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.							

Debt and Financial Management

- The sudden, violent rise in market volatility in early February likely signals the end of a decade of easy money, and fear that the Trump tax cuts and expanding Federal budget deficit will over-stimulate the U.S. economy.
- At its January meeting, the Federal Open Market Committee (FOMC) left the overnight federal funds target rate unchanged at its current range of 1.25% to 1.50%, but signaled that a rate increase is likely in March, with additional tightening to follow. The January FOMC meeting marked the final one for Janet Yellen, as she passed the Federal Reserve (Fed) Chair seat to Jerome Powell. Powell is expected to continue much in the Yellen mold, continuing the gradual pace of tightening and balance sheet reduction.
- The trend of rising interest rates continued as rates on Treasuries maturing from three to 10 years rose by 30 basis points (bps) or more, while yields on maturities of one year or less rose by only eight to 15 bps. Thus, for the first time in three months, the yield curve steepened.
- Municipal new issuance declined in January with a 40.8% drop in municipal bond sales to \$19.7 billion from \$33.3 billion the same month last year. Municipal bond flows were positive throughout the month with inflows through January 31 at \$10.5 billion, spiking from December's outflows of \$324 million all largely due to the elimination of advance refunding exception effective in January.

Schedule Coordination Goals

Software Development

- NCPA IS Staff successfully rolled out the scheduling software in support of the Pioneer Community Choice Aggregator scheduling services beginning on the February 1, 2018 Operating Date.
- 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 February 2018.
- NCPA IS Staff has begun software configuration for a new Community Choice Energy (CCE) customer, East Bay CCE, which scheduling services are anticipated to begin in June 2018.
- Various other software development is underway. The Resource Adequacy Compliance App is a tool to manage RA supply planning and compliance tracking. The Green House Gas (GHG) 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 Services, and Vendor Contracts. It calculates the billable amount for the Member's portion of the Shared Services.

- NCPA added a new secure, reporting platform service to the NCPA CONNECT extranet site, which will provide dynamic, interactive dashboard reports to staff, members, and customers. The new feature is available on the main NCPA CONNECT site under 'Reports'. New reports will be deployed over time.



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.
- The IS team is currently evaluating hardware/software solutions to replace the aging Storage Area Network that is coming off support by the end of 2018. Staff expects to have a solution purchased before the end of the fiscal year.
- The CAISO/AT&T ECN 56K to T1 circuit project continues as NCPA is currently working to upgrade the Ukiah Orchard, Oakland Station C & J locations.
- Work continues on streamlining the meetings workflow process using SharePoint to assist in preparing documents and presentations for a variety of NCPA committees. A full go-live date is expected by March. The IS team is also evaluating records retention software that will integrate with the Agency's SharePoint environments and be critical to the automation of records management. Currently we are reviewing different products and receiving demonstrations about their capabilities with an expected purchase before the end of the fiscal year.
- 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.

- NCPA performed a red team assessment at the Roseville office using a company called Rapid 7. This is a type of penetration test that evaluates the physical and network security defenses. The final report will be delivered to the IT Steering Committee in March.

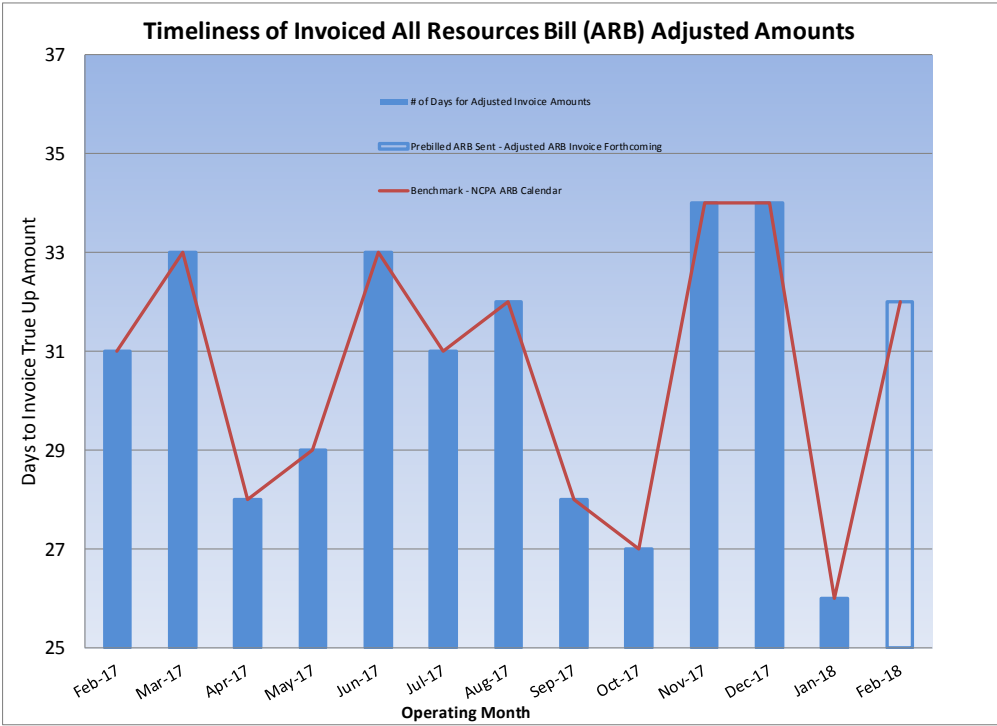
NCPA Bills & Settlements

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 February 2018 NCPA All Resources Bill (ARB) monthly invoice sent to members on January 24, 2018 contains:

- February 2018 monthly pre-billed budget/forecast amounts;
- December 2017 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;
- November 2017 (2nd Adjustment) NCPA Project settlement true-up and T+12 business day recalculated CAISO settlement true-up allocations;
- September 2017 (3rd Adjustment) T+55 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;
- March 2017 (4th Adjustment) T+9 month recalculated CAISO settlement true-up allocations;
- May 2016 (5th Adjustment) T+18 month recalculated CAISO settlement true-up allocations;
- February 2015 (6th Adjustment) T+33 month recalculated CAISO settlement true-up
- November 2014 (7th Adjustment) T+35 month CAISO settlement true-up



Legislative & Regulatory

Political Arena State/Federal/Western Programs

- NCPA held its annual Capitol Day program on January 29th. The program included a breakfast briefing by NCPA staff and guest speaker Kellie Smith, Chief Consultant for the Assembly Utilities and Energy Committee; meetings with legislators and key policy staff at the Capitol and Air Resources Board; and a dinner event with Senator Jim Nielsen (R-Roseville). For this program, NCPA developed issue papers on wildfires, grid regionalization, and the role of our power plants in transitioning to a cleaner economy. Discussions with regulatory staff touted the wide range of clean energy investments NCPA members have made and emphasized the continued importance of protecting future funding under the state's Cap-and-Trade and Low Carbon Fuel Standard programs.
- NCPA submitted comments to the Sites Project Authority regarding the August 207 Sites Reservoir Project (Project) Draft Environmental Impact/Environmental Impact Statement (DEIS). If built, the Project would impact Central Valley Project (CVP) water and power operations. NCPA urged that the DEIS include consideration of the environmental and financial impacts associated with the use of CVP project use water for its pumping facilities; the potential costs and impacts associated with the Project's transmission facilities—upgrades or new transmission line; and, the impacts to preference power customers if irrigation districts are unable to pay due to aid to irrigation provisions under Bureau of Reclamation law.
- NCPA submitted comments to the Bureau of Reclamation on its Notice of Intent to Prepare Draft Environmental Impact Statement of the Central Valley Project (CVP) and State Water Project (Draft EIS) for the Reinitiation of Consultation on the Long-Term Operations of the two projects. NCPA requested that the DRAFT EIS describes the impacts to the future costs and availability of CVP power under a new long-term operations agreement; identify alternative funding sources, including potential federal appropriation requirements; and, that the Draft EIS must consider alternatives that analyze CVP water and power delivery outcomes if revisions are made to existing legislation or regulations.

Human Resources

Hires:

Justin Molloy joined NCPA on January 2, 2018, as an Operator Technician IV at our Geothermal Facilities in Middletown, CA. Justin has over 22 years of Plant Operator experience having previously worked for Calpine as a Power Plant Operator.

Daniel Pierce joined NCPA on January 16, 2018, as Schedule Coordinator III at our Headquarters office in Roseville, CA. Daniel has over 16 years of Real-Time Asset Manager and experience having previously worked for Pacific Gas & Electric as a Senior Real-Time Asset Manager.

Sarah Taheri joined NCPA on January 16, 2018, as a Government Relations Representative IV at our Headquarters office in Roseville, CA. Sarah has over 8 years of Legislative and Regulatory experience having previously worked for the Southern California Public Power Authority as the Government Affairs Manager.

Jerry Pearson joined NCPA on January 25, 2018, as a CT Specialist III our Lodi Energy Center in Lodi, CA. Jerry has over 25 years of Plant Operator experience having previously worked for Ormat Nevada Inc. as the Operations Supervisor.

Intern Hires:

Austin Avery was hired at City of Redding on January 29, 2018, as Student Intern III in Redding, CA. Austin is pursuing a History and Political Science degree from Simpson University in Redding, CA.

Promotions/Position Changes:

None.

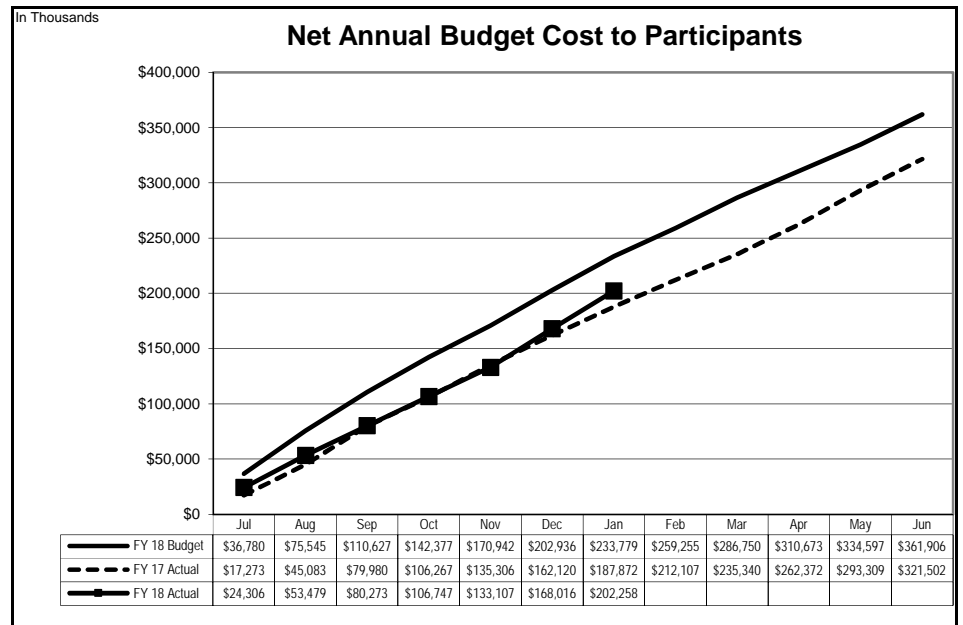
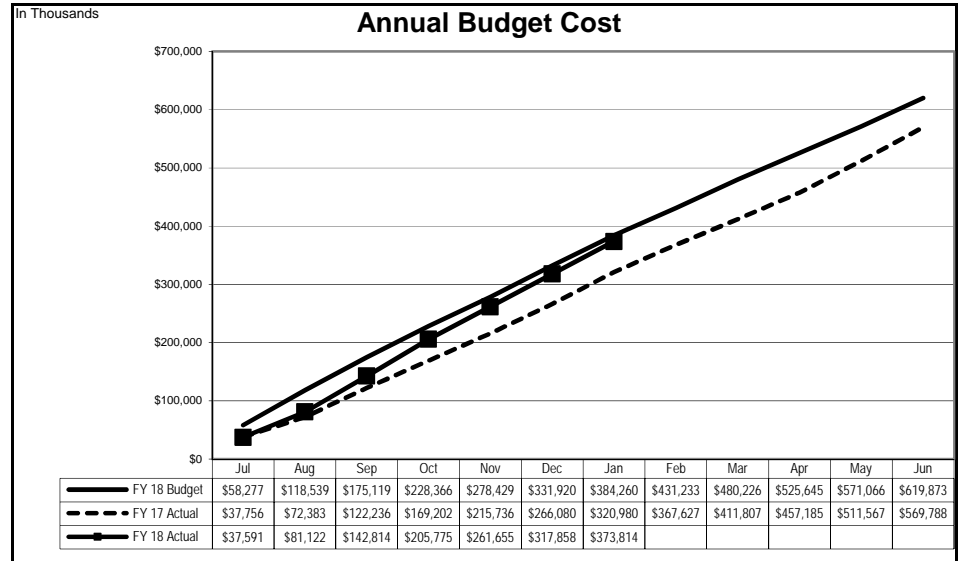
Separations:

James Takehara, Energy Resource Analyst IV, resigned his position at our Roseville Headquarters. James left for another employment opportunity.

Mary Trigo, Accounting Clerk II, resigned her position at our Roseville Headquarters. Mary left for another employment opportunity.

**Annual Budget
2017-2018 Fiscal Year To Date
As of January 31, 2018**

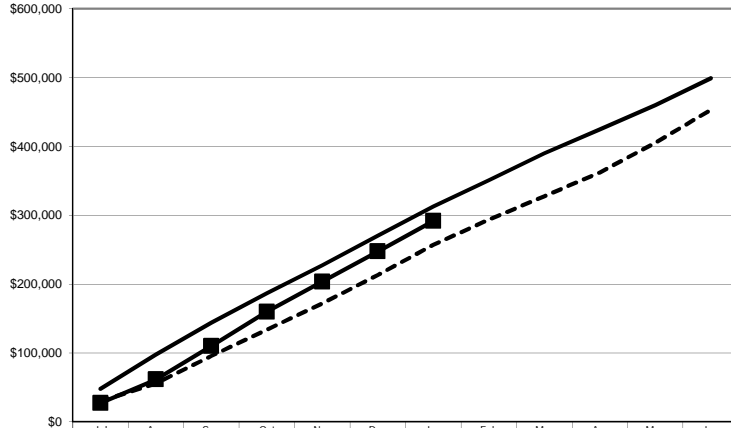
In Thousands	Program			
	Annual Budget	Actual	Under(Ovr) Budget	YTD % Remaining
GENERATION RESOURCES				
NCPA Plants				
Hydroelectric	53,862	33,943	\$ 19,919	37%
Geothermal Plant	32,120	16,365	15,755	49%
Combustion Turbine No. 1	2,849	2,727	122	4%
Combustion Turbine No. 2 (STIG)	8,623	5,512	3,110	36%
Lodi Energy Center	61,088	48,930	12,158	20%
	158,542	107,477	51,065	32%
Member Resources - Energy	53,389	30,555	22,834	43%
Member Resources - Natural Gas	3,457	2,090	1,368	40%
Western Resource	30,120	12,247	17,873	59%
Market Power Purchases	19,318	15,876	3,442	18%
Load Aggregation Costs - ISO	233,822	122,988	110,835	47%
Net GHG Obligations	446	519	(73)	-16%
	499,094	291,750	207,344	42%
TRANSMISSION				
Independent System Operator	102,925	73,436	29,489	29%
MANAGEMENT SERVICES				
Legislative & Regulatory				
Legislative Representation	1,976	949	1,027	52%
Regulatory Representation	838	374	463	55%
Western Representation	830	289	541	65%
Member Services	436	205	231	53%
	4,079	1,817	2,263	55%
Judicial Action	625	544	81	13%
Power Management				
System Control & Load Dispatch	5,864	3,063	2,801	48%
Forecasting & Prescheduling	2,647	1,328	1,319	50%
Industry Restructuring	424	174	250	59%
Contract Admin, Interconnection Svcs & Ext. Affairs	1,152	489	663	58%
Green Power Project	18	1	17	93%
Gas Purchase Program	88	34	54	61%
Market Purchase Project	130	49	81	62%
	10,323	5,139	5,185	50%
Energy Risk Management	207	70	137	66%
Settlements	774	315	459	59%
Integrated System Support	319	57	262	82%
Participant Pass Through Costs	1,526	603	923	60%
Support Services	-	84	(84)	N/A
	17,854	8,628	9,226	52%
TOTAL ANNUAL BUDGET COST	619,872	373,814	246,058	40%
LESS: THIRD PARTY REVENUE				
Plant ISO Energy Sales	70,367	73,299	(2,932)	-4%
Load Aggregation Energy Sales	151,019	61,500	89,519	59%
Ancillary Services Sales	2,731	3,022	(291)	-11%
Western Resource Energy Sales	18,026	16,432	1,595	9%
Other ISO Revenue	-	9,900	(9,900)	N/A
Transmission Sales	110	64	46	42%
Western Credits, Interest & Other Income	15,713	7,339	8,373	53%
	257,967	171,556	86,411	33%
NET ANNUAL BUDGET COST TO PARTICIPANTS	361,906	202,258	\$ 159,648	44%



**Annual Budget
Budget vs. Actual By Major Area
2017-2018 Fiscal Year to Date
As of January 31, 2018**

In Thousands

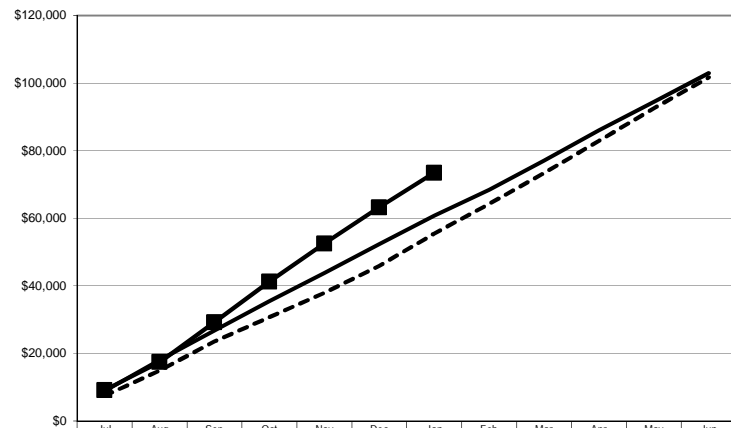
Generation Resources



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 18 Budget	\$47,926	\$97,565	\$143,922	\$186,953	\$227,154	\$270,659	\$313,054	\$350,865	\$389,770	\$424,736	\$460,247	\$499,094
FY 17 Actual	\$29,756	\$55,812	\$95,687	\$133,929	\$171,830	\$213,133	\$257,030	\$293,598	\$327,588	\$362,137	\$405,437	\$453,193
FY 18 Actual	\$27,457	\$61,486	\$110,071	\$159,932	\$203,497	\$247,442	\$291,750					

In Thousands

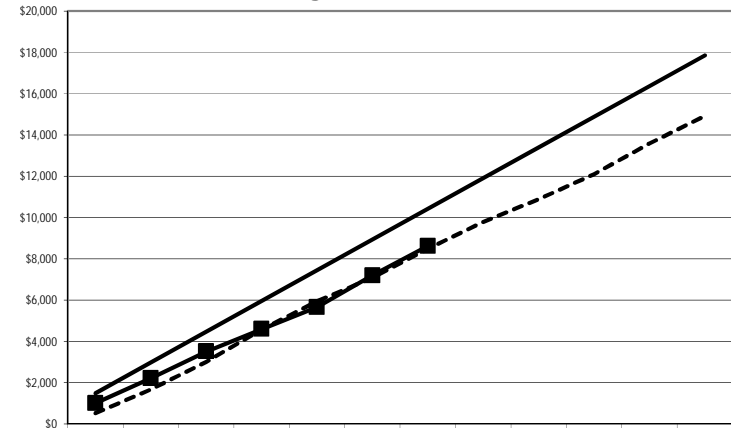
Transmission-ISO



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 18 Budget	\$8,863	\$17,999	\$26,733	\$35,462	\$43,835	\$52,333	\$60,791	\$68,465	\$77,065	\$86,031	\$94,453	\$102,925
FY 17 Actual	\$7,476	\$14,883	\$23,532	\$30,689	\$37,966	\$45,861	\$55,469	\$64,245	\$73,335	\$82,951	\$92,549	\$101,676
FY 18 Actual	\$9,126	\$17,413	\$29,207	\$41,243	\$52,490	\$63,218	\$73,436					

In Thousands

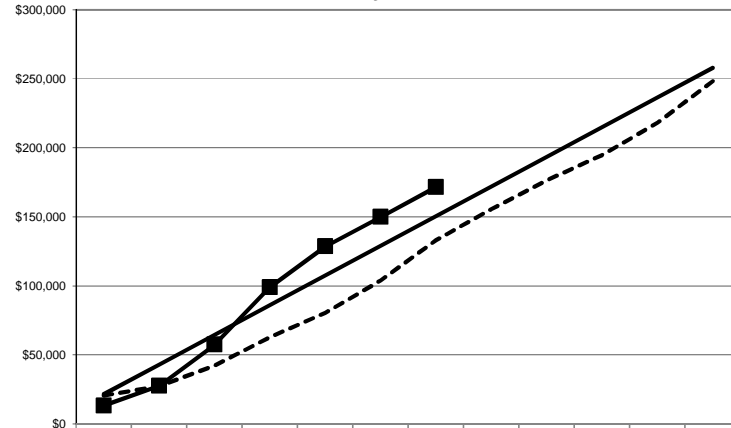
Management Services



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 18 Budget	\$1,488	\$2,976	\$4,464	\$5,951	\$7,439	\$8,927	\$10,415	\$11,903	\$13,391	\$14,878	\$16,366	\$17,854
FY 17 Actual	\$523	\$1,688	\$3,017	\$4,584	\$5,940	\$7,086	\$8,481	\$9,784	\$10,883	\$12,097	\$13,581	\$14,919
FY 18 Actual	\$1,008	\$2,223	\$3,516	\$4,600	\$5,667	\$7,198	\$8,628					

In Thousands

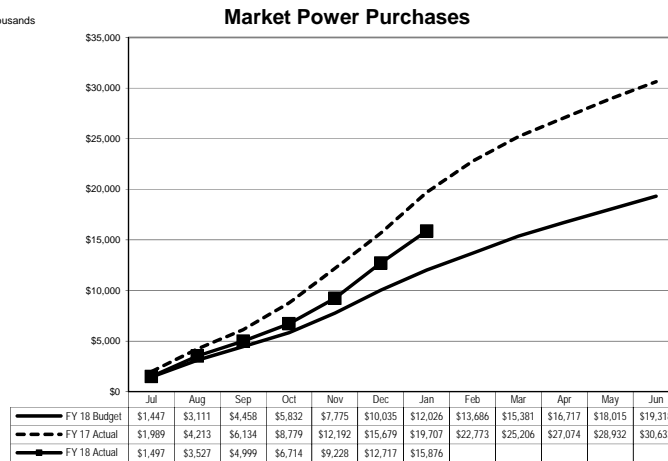
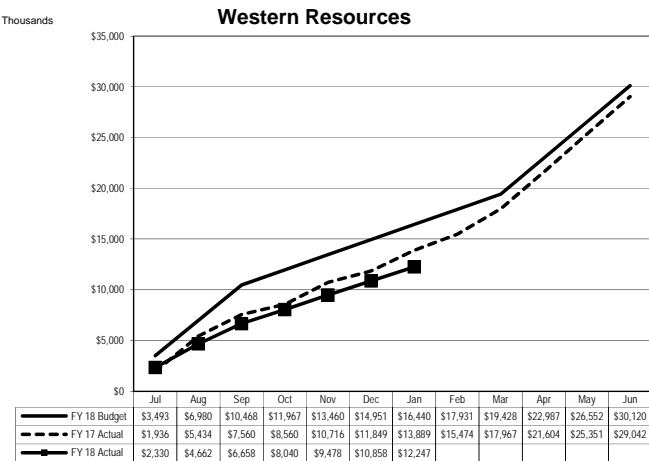
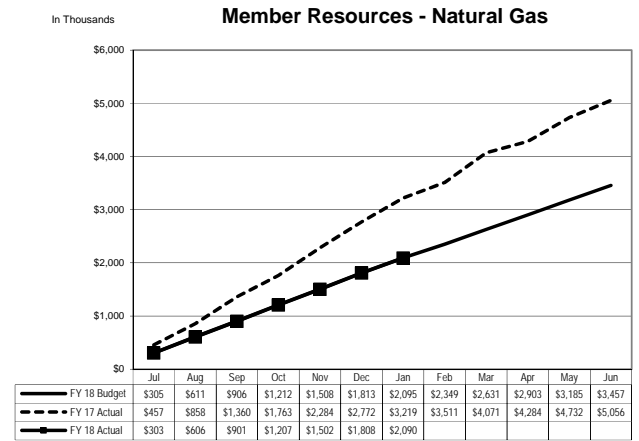
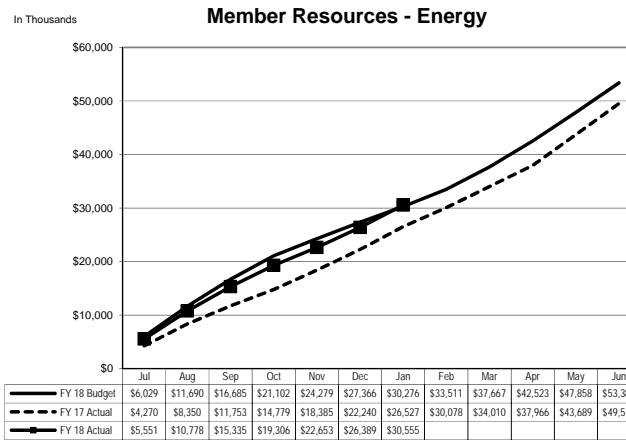
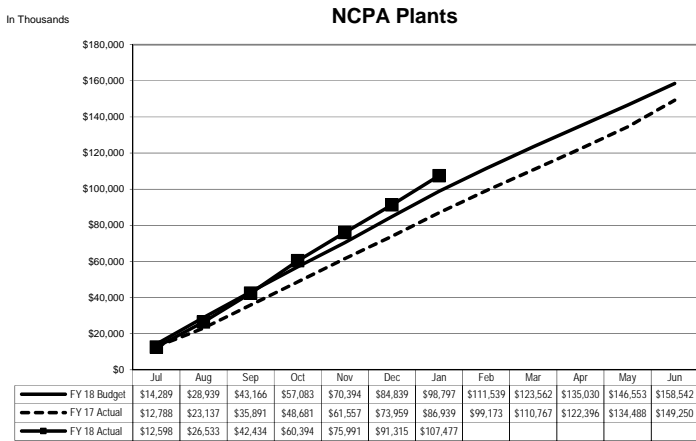
Third Party Revenue



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 18 Budget	\$21,497	\$42,995	\$64,492	\$85,989	\$107,486	\$128,984	\$150,481	\$171,978	\$193,475	\$214,973	\$236,470	\$257,967
FY 17 Actual	\$20,482	\$27,301	\$42,255	\$62,934	\$80,430	\$103,960	\$133,108	\$155,520	\$176,466	\$194,813	\$218,258	\$248,287
FY 18 Actual	\$13,285	\$27,643	\$57,380	\$99,028	\$128,548	\$149,842	\$171,556					

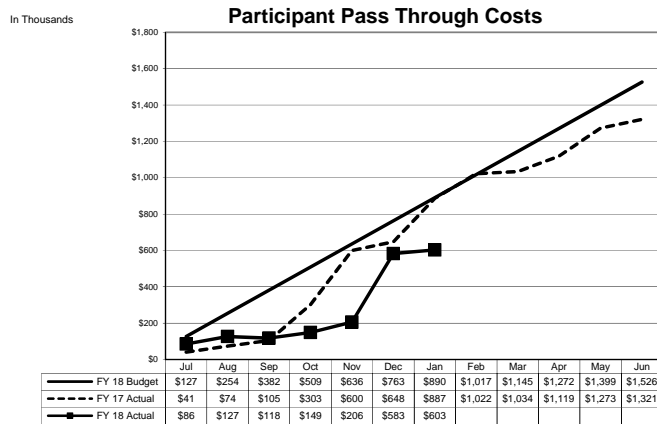
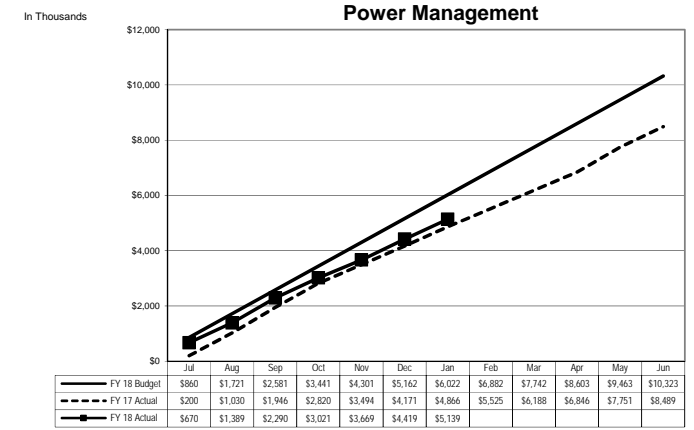
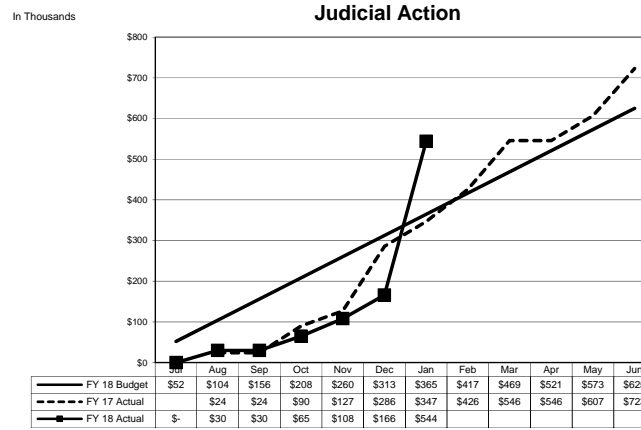
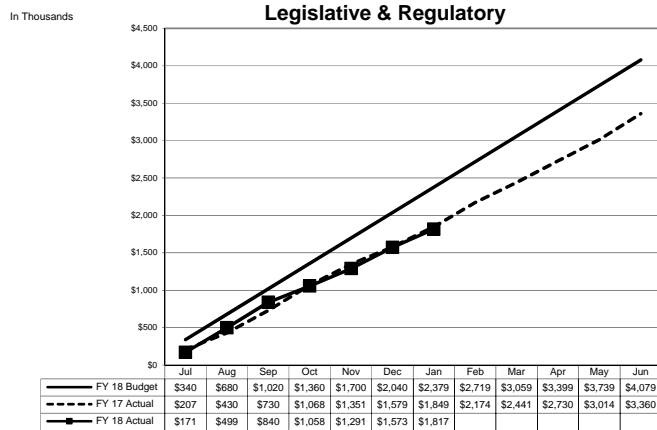
Footnote: Transmission is solely reflective of Independent System Operator (ISO) costs

**Annual Budget Cost
Generation Resources Analysis By Source
2017-2018 Fiscal Year to Date
As of January 31, 2018**



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 January 31, 2018**



**Annual Budget Cost
Management Services Analysis By Source
2017-2018 Fiscal Year to Date
As of January 31, 2018**

In Thousands

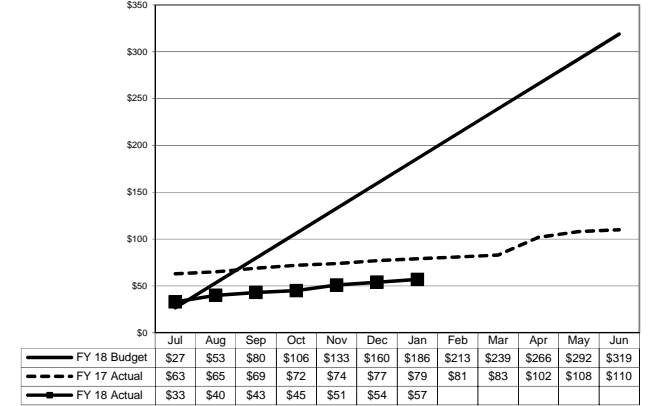
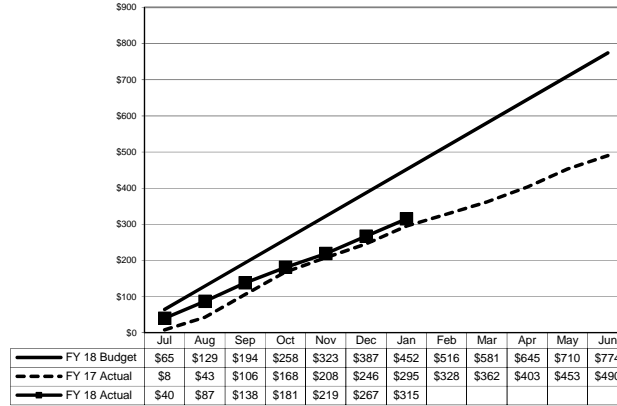
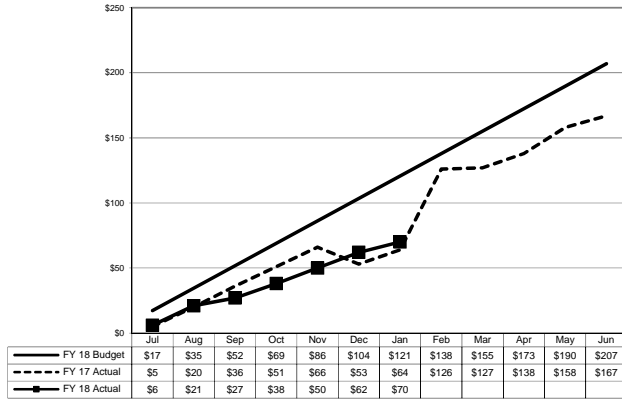
Energy Risk Management

In Thousands

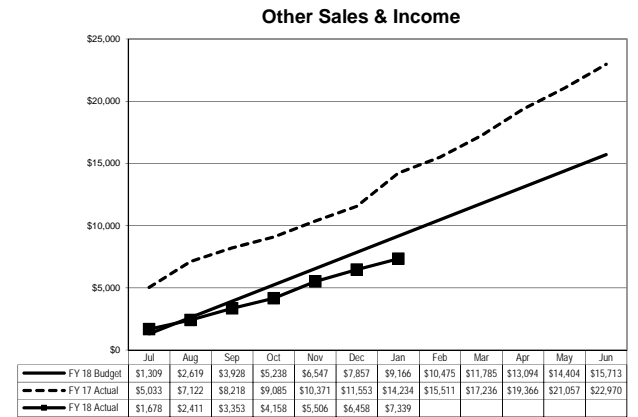
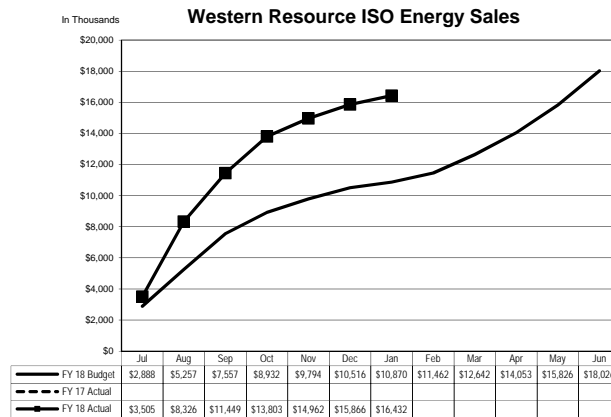
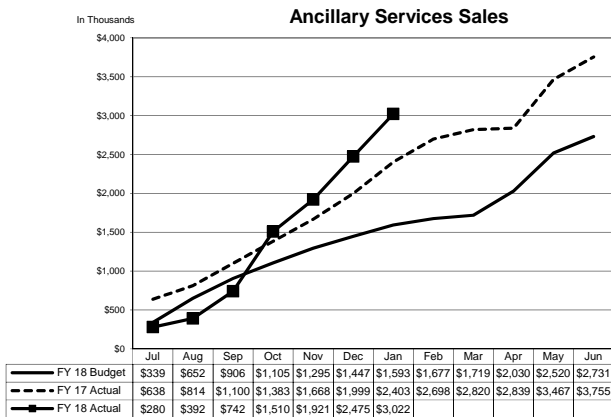
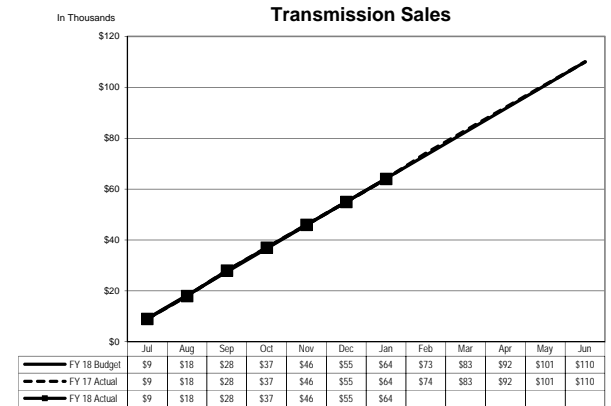
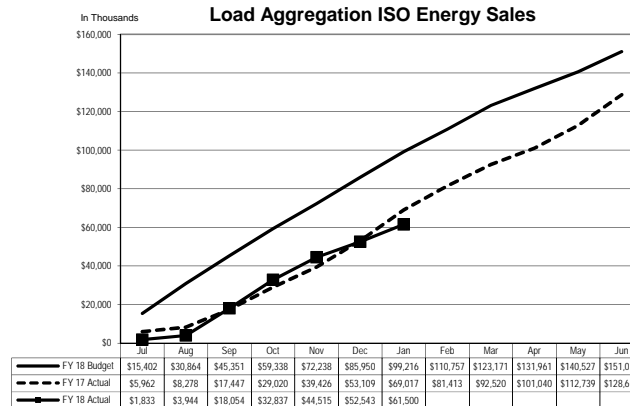
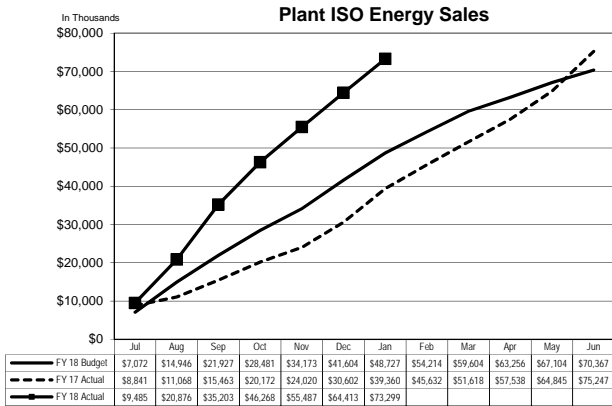
Settlements

In Thousands

Integrated Systems Support



**Annual Budget Cost
Third Party Revenue Analysis By Source
2017-2018 Fiscal Year to Date
As of January 31, 2018**



**Annual Budget
NCPA Generation Detail Analysis By Plant
2017-2018 Fiscal Year to Date
As of January 31, 2018**

Generation Cost Analysis

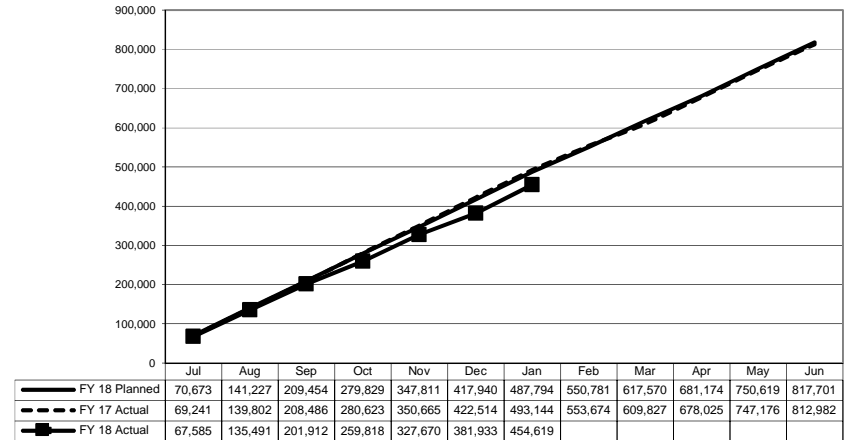
\$ in thousands

	Geothermal				
			\$/MWh	Under(Ovr)	YTD %
	Budget	Actual	Actual	Budget	Remaining
Routine O & M	\$ 17,564	\$ 8,722	\$ 19.18	\$ 8,843	50%
Capital Assets/Spare Parts Inventories	1,440	380	0.84	1,060	74%
Other Costs	7,863	4,215	9.27	3,647	46%
CA ISO Charges	317	169	0.37	148	47%
Debt Service	4,936	2,879	6.33	2,057	42%
Annual Budget	32,120	16,365	36.00	15,755	49%
Less: Third Party Revenue					
Interest Income	148	154	0.34	(6)	-4%
ISO Energy Sales	28,349	17,333	38.13	11,016	39%
Ancillary Services Sales	-	(4)	(0.01)	4	
Effluent Revenues	700	852	1.87	(152)	-22%
Misc	110	68	0.15	43	
	29,307	18,401	40.48	10,906	37%
Net Annual Budget Cost to Participants	\$ 2,813	\$ (2,036)	\$ (4.48)	\$ 4,849	172%
Net Generation--MWh @ Meter	817,701	454,619			
\$/MWh (A)	\$ (2.60)	\$ (10.81)			

MWhs Generated

In MWh

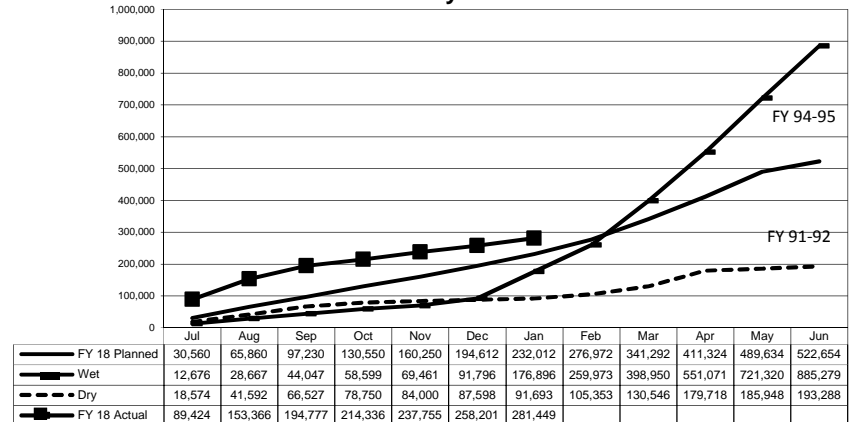
Geothermal



	Hydroelectric				
			\$/MWh	Under(Ovr)	YTD %
	Budget	Actual	Actual	Budget	Remaining
Routine O & M	\$ 8,465	\$ 4,104	\$ 14.58	\$ 4,361	52%
Capital Assets/Spare Parts Inventories	2,365	5,003	17.77	(2,638)	-112%
Other Costs	3,093	1,398	4.97	1,696	55%
CA ISO Charges	1,680	1,121	3.98	559	33%
Debt Service	38,258	22,317	79.29	15,941	42%
Annual Budget	53,862	33,943	120.60	19,919	37%
Less: Third Party Revenue					
Interest Income	244	240	0.85	5	2%
ISO Energy Sales	22,050	16,145	57.37	5,905	27%
Ancillary Services Sales	2,222	1,531	5.44	692	31%
Misc	-	63	0.22	(63)	
	24,516	17,978	63.88	6,538	27%
Net Annual Budget Cost to Participants	\$ 29,346	\$ 15,965	\$ 56.72	\$ 13,381	46%
Net Generation--MWh @ Meter	522,654	281,449			
\$/MWh (A)	\$ (17.05)	\$ (22.57)			

In MWh

Hydro



Footnotes:

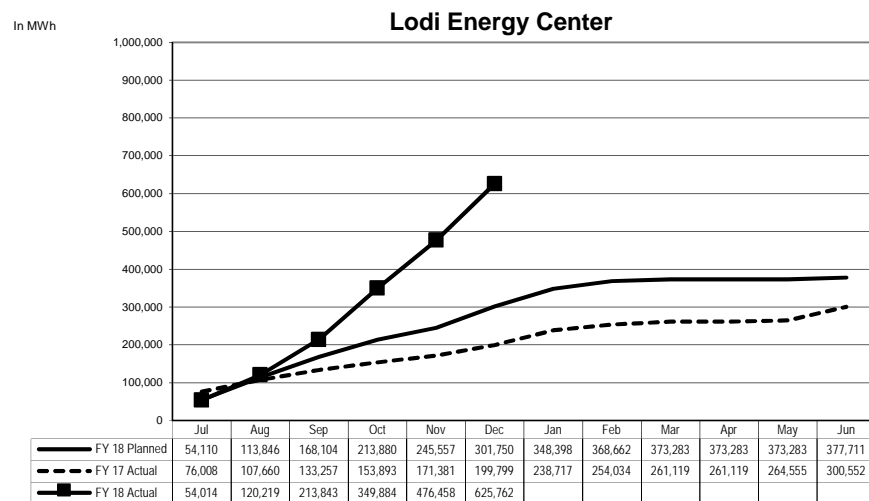
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

**Annual Budget
NCPA Generation Detail Analysis By Plant
2017-2018 Fiscal Year to Date
As of January 31, 2018**

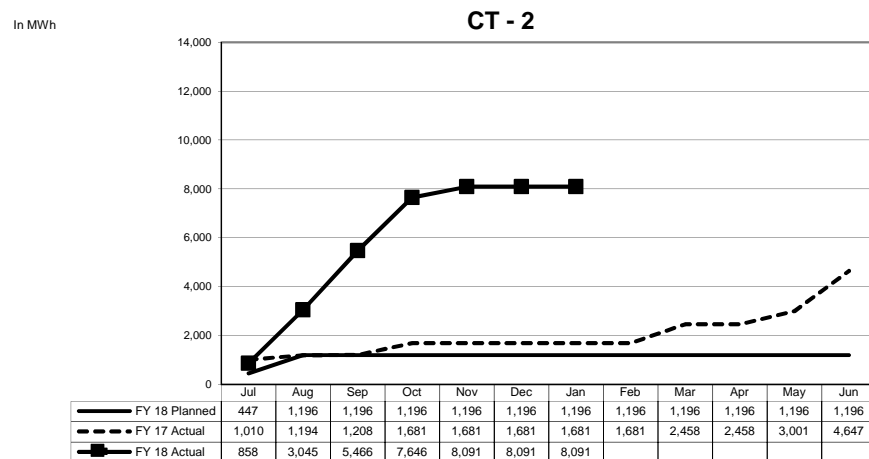
Generation Cost Analysis

Lodi Energy Center					
	Budget	Actual	\$/MWh Actual	Under(Ovr) Budget	YTD % Remaining
Routine O & M	\$ 10,174	\$ 7,612	\$ 9.92	\$ 2,563	25%
Fuel	14,877	19,674	25.65	(4,797)	-32%
AB 32 GHG Offset	-	-	-	-	0%
CA ISO Charges and Energy Purchases	3,921	3,833	5.00	88	2%
Capital Assets/Spare Parts Inventories	2,636	1,230	1.60	1,406	53%
Other Costs	3,063	1,192	1.55	1,871	61%
Debt Service	26,417	15,389	20.07	11,027	42%
Annual Budget	61,088	48,930	63.80	12,158	20%
Less: Third Party Revenue					
Interest Income	172	232	0.30	(60)	-35%
ISO Energy Sales	19,760	37,145	48.43	(17,385)	-88%
Ancillary Services Sales	397	1,003	1.31	(606)	-153%
Transfer Gas Credit	-	-	-	-	0%
Misc	-	0	0.00	(0)	0%
	20,329	38,381	50.04	(18,051)	-89%
Net Annual Budget Cost to Participants	\$ 40,759	\$ 10,549	\$ 13.75	\$ 30,210	74%
Net Generation--MWh @ Meter	377,711	766,955			
\$/MWh (A)	\$ 37.97	\$ (6.31)			

MWhs Generated



Combustion Turbine No. 2 (STIG)					
	Budget	Actual	\$/MWh Actual	Under(Ovr) Budget	YTD % Remaining
Routine O & M	\$ 1,471	\$ 825	\$ 101.95	\$ 646	44%
Fuel and Pipeline Transport Charges	835	757	93.59	77	9%
Capital Assets/Spare Parts Inventories	121	10	1.24	111	92%
Other Costs	502	237	29.32	265	53%
CA ISO Charges	0	362	44.74	(362)	-78080%
Debt Service	5,693	3,321	410.45	2,372	42%
Annual Budget	8,623	5,512	681.28	3,110	36%
Less: Third Party Revenue					
Interest Income	43	44	5.48	(1)	-3%
ISO Energy Sales	89	1,130	139.66	(1,041)	-1172%
Ancillary Service Sales	-	0	0.00	(0)	0%
Fuel and Pipeline Transport Credits	864	844	104.28	21	2%
Misc	-	-	-	-	0%
	996	2,018	249.42	(1,022)	-103%
Net Annual Budget Cost to Participants	\$ 7,627	\$ 3,494	\$ 431.86	\$ 4,132	54%
Net Generation--MWh @ Meter	1,196	8,091			
\$/MWh (A)	\$ 1,616.78	\$ 21.41			



Footnotes:

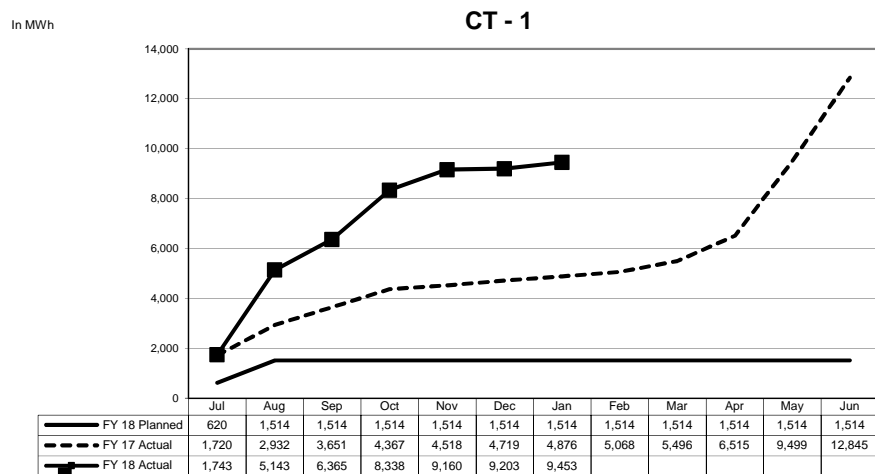
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

**Annual Budget
NCPA Generation Detail Analysis By Plant
2017-2018 Fiscal Year to Date
As of January 31, 2018**

Generation Cost Analysis

	Combustion Turbine No. 1				
	Budget	Actual	\$/MWh Actual	Under(Ovr) Budget	YTD % Remaining
Routine O & M	\$ 1,520	\$ 1,245	\$ 131.65	\$ 275	18%
Fuel and Pipeline Transport Charges	172	-	-	172	100%
Capital Assets/Spare Parts Inventories	642	256	27.04	386	60%
Other Costs	292	932	98.55	(639)	-219%
CA ISO Charges	1	295	31.18	(294)	-50118%
Debt Service	-	-	-	-	
Annual Budget	2,627	2,727	288.43	(100)	-4%
Less: Third Party Revenue					
Interest Income	-	-	-	-	
ISO Energy Sales	119	1,545	163.42	(1,426)	-1198%
Ancillary Services Sales	-	0	0.00	(0)	0%
Misc	-	16	1.65	(16)	0%
	119	1,561	165.08	(1,442)	-1211%
Net Annual Budget Cost to Participants	\$ 2,508	\$ 1,166	\$ 123.35	\$ 1,342	54%
Net Generation--MWh @ Meter	1,514	9,453			
\$/MWh (A)	\$ 1,656.50	\$ 123.35			

MWhs Generated



Footnotes:

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