



Northern California Power Agency  
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# BUSINESS PROGRESS REPORT

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**2021**  
August

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# Table of Contents

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Generation Costs & Reliability .....	1
Environmental, Health & Safety Projects .....	4
Power Management/NCPA Market Results.....	5
Debt & Financial Management .....	13
Schedule Coordination Goals.....	14
NCPA Bills & Settlements.....	14
Political Arena State/Federal/Western Programs .....	15
Human Resources.....	15
Annual Budget FY to Date.....	16
Budget vs. Actual by Major Area .....	17
Generation Resources Analysis by Source .....	18
Management Services Analysis by Source .....	19
Third Party Revenue Analysis by Source .....	21
Generation Detail Analysis by Plant .....	23

# Generation Costs & Reliability

## Combustion Turbine Project

### Unit Operation for July 2021

Unit	Availability		Production			Reason for Run
CT1 Alameda	Unit 1	Unit 2	Unit 1	523.5	MWh	CAISO / CAISO
	98.2%	99.8%	Unit 2	515.4	MWh	
Curtailements, Outages, and Comments:						
Unit 1: 7/12 @ 21:44 - 7/13 @ 11:00; Lube oil system trouble, OMS 10418235						
Unit 2: 7/14 @ 19:04 - 20:38; Lube oil system trouble, OMS 10428857						
Unit	Availability		Production			Reason for Run
CT1 Lodi	100.0%		1,259.3 MWh			CAISO
Curtailements, Outages, and Comments:						
Normal operation.						
Unit	Availability		Production			Reason for Run
CT2 STIG	100.0%		8,393.8 MWh			CAISO
Curtailements, Outages, and Comments:						
Normal operation.						
Unit	Availability		Production			Reason for Run
LEC	100.0%		204,131 MWh			CAISO
Curtailements, Outages, and Comments:						
Normal operation.						

**Maintenance Summary – Specific per asset above.**

## Geothermal Facilities

### Availability/Production for July 2021

Unit	Availability	Net Electricity Generated/Water Delivered	Out-of-Service/Descriptors
<b>Unit 1</b>	97.92 %	20,464 MWh	U1 was off line 7/11/21 1652 until 7/12/21 0753 due to main circ pump motor failure. U1 was off line 7/25/21 0700 until 7/25/21 0830 for stretford air blower replacement
<b>Unit 2</b>	97.41 %	*21,330 MWh	U2 was off line 7/25/21 0700 until 7/26/21 0215 due to AVR trouble
<b>Unit 3</b>	N/A %	N/A	Unit 3 remains out of service.
<b>Unit 4</b>	97.85 %	28,859 MWh	U4 was off line 7/16/21 1750 until 7/17/21 0952 due to 480v breaker failure.
<b>Southeast Geysers Effluent Pipeline</b>	0 %	31.5 mgallons	Average flow rate: 1,350 gpm
<b>Southeast Solar Plant</b>	N/A	123,793 KWh	Year-to-date KWh: 3,925,107
<b>Bear Canyon Pump Station Zero Solar</b>	N/A	145,795 KWh	Year-to-date KWh: 5,885,838

\* Accounts for an additional 271 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

## Hydroelectric Project

### Availability/Production for July 2021

Units	Availability	Net Electricity Generated	Out-of-Service
<b>Collierville Unit 1</b>	100%	7184 MWh	CV Unit 1 – No Outages
<b>Collierville Unit 2</b>	100%	3801 MWh	CV Unit 2 – No Outages
<b>Spicer Unit 1</b>	46.08%	378 MWh	NSM1- out of service on 7/1/21 to 7/8/21 from 1137 to 1002 for 21kV line outage and on 7/18/21 to 7/27/21 from 0013 to 1858 for 21kV line outage
<b>Spicer Unit 2</b>	48.05%	242 MWh	NSM2- out of service on 7/1/21 to 7/7/21 from 1137 to 1918 for 21kV line outage and on 7/18/21 to 7/2/21 from 0013 to 1901 for 21kV line outage
<b>Spicer Unit 3</b>	44.18%	85 MWh	NSM2- out of service on 7/1/21 to 7/8/21 from 1137 to 0949 for 21kV line outage and on 7/18/21 to 7/28/21 from 0013 to 0915 for 21kV line outage

### Operations & Maintenance Activities:

- CMMS work orders
- Yearly Vegetation Management with Cal Fire Crew
- Performed annual noxious weed survey for Project 11563
- Performed annual hydrographic survey levels
- Completed Murphys HQ HVAC/Insulation/Lighting energy efficiency retrofit
- July 8th, dam inspections following earthquake along Hwy 395
- USFS “Henry Fire” NE of New Spicer Meadow Reservoir
- NSM campground – pull and replace drinking water system deep well pump.
- High elevation flash flood warnings due to thunderstorms.

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

- There were no vehicle, Cal OSHA Recordable, or Lost Time accidents in the month of July.
- 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 was updated through the payroll period ended July 31, 2021.
- 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.

### July 2021 Generation Services Safety Report

	Hydro	GEO	CT Group *	NCPA HQ **
Cal OSHA Recordable (this month)	0	0	0	0
Cal OSHA Recordable (calendar year)	0	0	0	0
Days since Recordable	293	1,103	2,308	3,292
Work Hours Since Last Recordable	24,034	230,241	347,055	2,705,803
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	0	0	0
Days without LTA	5,042	2,171	10,212	6,305
Work Hours without LTA	456,604	147,216	757,599	2,327,821
Vehicle Incident (month)	0	0	0	0
Vehicle Incident (calendar year)	0	1	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 July 31, 2021.

## 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 2021 Data**

	<b>July 2021</b>		<b>Calendar Year 2021</b>	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	415.77 7/9 @ 1700	209,867	440.56 6/17 @ 1700	1,302,236
SVP	569.18 7/9 @ 1600	360,958	590.64 6/17 @ 1600	2,321,687
MSSA	983.57 7/9 @ 1600	570,825	1025.46 6/17 @ 1700	3,623,923

#### **Last Year 2020 Data\***

	<b>July 2020</b>		<b>Calendar Year 2020</b>	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	379.58 7/9 @ 1800	203,609	467.45 8/14 @ 1700	1,295,884
SVP	512.48 7/10 @ 1600	330,443	586.3 8/14 @ 1700	2,185,506
MSSA	884.97 7/10 @ 1700	534,052	1053.75 8/14 @ 1700	3,481,390

\* Last year's data added for comparison purposes only

#### **System Peak Data**

	<b>All Time Peak Demand</b>	<b>2021 Peak Demand</b>
NCPA Pool	517.83 MW on 7/24/06 @ 1500	440.56 6/17 @ 1700
SVP	590.64 MW on 6/17/21 @ 1600	590.64 6/17 @ 1600
MSSA	1070.79 MW on 9/1/17 @ 1700	1025.46 6/17 @ 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.

<b>NCPA Deviation Band Performance</b>		
	<b>July 2021</b>	<b>Calendar Year 2021</b>
<b>MSSA % Within the Band</b>	96.34%	97.96%

- CAISO issued a Restricted Maintenance Operations notification for the following dates:
  - 7/12/21: 1600-2100 hours
  - 7/27/21, 1200 hours to 7/28/21, 2100 hours
  - 7/29/21: 1200-2100 hours
- CAISO issued a Flex Alert for the following dates:
  - 7/9/21: 1600-2100 hours
  - 7/10/21: 1600-2100 hours
  - 7/12/21: 1600-2100 hours
  - 7/28/21: 1600-2100 hours
- CAISO issued a Grid Warning for the following date
  - 7/10/21: 1700-2100 hours
- CAISO issued a Stage 1 Emergency notification on the following date/time:
  - 7/9/21, 1748
- CAISO issued a Stage 2 Emergency notification on the following date/time:
  - 7/9/21, 1837
- There were no Public Safety Power Shutoff (PSPS) warnings issued by PG&E

### **Pooling, Portfolio Planning & Forecasting**

- NCPA Pool load during June 2021 was 209,868 MWh versus the budget forecast of 208,116 MWh, resulting in a forecast error of -0.84%. The forecast error was due to slightly higher than average temperatures during the month of July. The current weather outlook for August 2021 is for above-normal temperatures, with the pool load forecast at 211,889 MWh compared with extrapolated actuals of 207,247 MWh as of August 16, 2021.
- Lodi Energy Center (LEC) ran 624 hours out of a possible 744, producing 171,157 MWh. Natural gas and power prices are significantly higher than a year ago due to the low reservoir levels throughout the state. As such, summer gas-fired generation will likely be high.
- During July 2021, essentially no rain was recorded at the Big Trees gauge. Average August Big Trees precipitation is also near zero.
- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) has remained at \$300/MWh. But for the most part releases from NSMR are just enough to maintain the summer minimum Big Trees flow of 150 CFS.
- NSMR storage as of July 31, 2021 was at 79,510-acre feet. The historical average NSMR storage at the end of July is 134,839 acre feet. As of August 16, 2021 NSMR storage is 74,672 acre feet.
- Combined Calaveras Project generation for the Pool in July 2021 totaled 5.41 GWh, down from 7.46 GWh in June 2021. The Pool's 5.41 GWh in July 2021 was very close to its revised forecast of 4.44 GWh created on June 15, 2021.
- Western Base Resource (BR) deliveries for the Pool during July 2021 were 64,857 MWh. Displacement program energy totaled 0.0 MWh. Western's latest forecast for the Pool's share of August 2021 generation is 56,416 MWh.



- The PG&E Citygate gas index averaged \$5.08/MMBtu during the month of July as compared to an average of \$4.38 for June. August's current average is \$5.47. Both NYMEX gas and basis prices have been rising due to flat production, growing exports of natural gas and increased demand. Prices will remain high for the remainder of the summer. The September 2021 PG&E Citygate forward price is \$5.18/MMBtu.
- Day-Ahead PG&E DLAP electricity prices for July averaged \$79.51/MWh On-Peak and \$57.38 Off-Peak. with a high of \$118.21. For the dates of August 1<sup>st</sup> through 16<sup>th</sup>, 2021 prices have average \$73.91 On-Peak and \$55.57 Off-Peak. The forward prices for August are \$77.98 On-Peak and \$59.30 Off-Peak.

## **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 of October 2021:
  - Monthly System Resource Adequacy Demonstration (filed August 17, 2021)
  - Monthly Supply Plan (filed August 17, 2021)

### **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 key active initiatives:

### **Energy Storage Enhancements (ESE)**

- As CAISO integrates GWs of battery capacity into its grid, CAISO and battery operators are encountering challenges with developing bidding strategies that optimize the resources in Day Ahead and Real Time Markets and maintain availability in critical net peak hours. As part of the Market Enhancements for Summer 2021 Needs, CAISO imposed a contentious Minimum State of Charge requirement for Resource Adequacy (RA) batteries that CAISO will enforce during periods of "Residual Unit Commitment (RUC) under-generation feasibility" for two years. The primary goal of ESE is to develop a permanent replacement for the MSOC requirement once it expires. CAISO explains that the main challenge is CAISO developed its current markets around gas-fired resources that are available 24X7 and the Real Time Market Multiple Interval Optimization (MIO) can only look out 65 minutes, which results in exhausting the batteries prior to the high value net peak hours. CAISO explained that expanding the MIO is technologically infeasible and the only current large-scale battery operator expressed concerns that, even if it was feasible, that it would be too inaccurate and could exacerbate the problem. CAISO and battery operators are proposing new products and other financial incentives to address these issues such as:
  - Scarcity pricing
  - Apply prices to existing MSOC tool
  - Energy shift product
  - Biddable state of charge product
  - Variable charging rates
  - Exceptional dispatch enhancements including payment for maintaining MSOC

- NCPA has concerns that these solutions could be unnecessary costs for ratepayers and unfair advantages to the storage fleet and drafted comments accordingly.
  - Batteries are not the only use limited resources negatively impacted by the fact the CAISO market was designed around natural gas fired generation with 24x7 availability. CAISO must revisit use-limited eligibility and associated opportunity costs for other resources such as certain hydro and near end-of-life thermal units. Special storage rules could violate CAISO's guiding principle for its markets to be technology agnostic.
  - NCPA believes current CAISO markets including Resource Adequacy Incentives and bilateral RA payments are sufficient tools to ensure availability during Availability Assessment Hours.
  - Storage does not have enough experience in the market to conclude that new, storage specific, products are necessary and CAISO should suspend this initiative at least until after GWs of storage have achieved deliverability and have time to optimize bidding strategies.

### Extended Day-Ahead Market

- This initiative has been put on hold pending Day Ahead Market Enhancements initiative development.
- Bundle 1 consists of Resource Sufficiency Evaluations (RSE), Congestion and Transfer revenue allocation, and Transmission cost allocation.
- RSE is relatively uncontroversial and is similar in concept to ISO/CPUC RA program in that it is intended to ensure that EDAM participants have sufficient capacity, transmission, flexibility, and reserves to serve own loads and prevent leaning on other participants. RSE is currently active in EIM. Congestion and Transfer revenue allocations relatively uncontroversial as well. Congestion is intra-BAA and allocated to load that pays for transmission. Transfers occur inter-BAA and will be allocated to transmission owners. The controversial topic is transmission cost allocation. CAISO proposes to declare most transmission costs as sunk and only apply usage fee to incremental exports and EIM wheeling transfers. NCPA and others are concerned that those paying for transmission will not be fairly compensated.
- This initiative will develop an approach to extend participation in the Day-Ahead market to the Western Energy Imbalance Market (EIM) entities in a framework similar to the existing EIM approach for the real-time market, rather than requiring full integration into the CAISO balancing area. The extended Day-Ahead market (EDAM) will improve market efficiency by integrating renewable resources using Day-Ahead unit commitment and scheduling across a larger area.

### Resource Adequacy Enhancements

- Phase 1 implementation began in June 2021 with planned outage enhancements including substitution requirements for all RA outages and removal of substitution exemption for planned transmission induced generator outages effective July 1, 2021.
- Phase 2A draft final proposal and Phase 2B seventh revised straw proposal publication is TBD.
- Phase 1 will include planned outage process enhancements, RA Import requirements, operationalizing storage, and backstop capacity procurement focused on CPM for local energy sufficiency. The planned outage process enhancements are scheduled to become effective June 2021 while the others are slated to go live in time for the 2022 RA year (Jan. 2022). The primary outage process enhancement is

requiring generators to submit substitution up front for all planned RA outages shortly after month ahead submittals. CAISO rejected NCPA's response to keep status quo whereby substitution is only required after a study produces an assignment. RA Import enhancements focus on determining the source of an RA import. Western is sufficiently covered under the new definition of resource specific since it includes a "system of resources" such as CVP.

- Phase 2 includes unforced capacity evaluations, determining system RA requirements, system RA showings and sufficiency testing, individual assessments, must offer obligations and bid insertion modifications, UCAP for local studies, backstop capacity procurement, and further planned outage process enhancements including implementation of a substitute capacity pool. Issues with this phase include counting rules being taken from the LRA and handed to the CPUC or other LRAs. However, CAISO is maintaining MSS exemptions to bid insertion and must offer obligations.

### Day-Ahead Market Enhancements

- This initiative has been delayed due to the Summer 2021 Readiness Initiative taking priority.
- CAISO delayed publication of next straw proposal and announced that it will propose enhancements to RUC. NCPA seeking clarity for if new Reliability Capacity product remains.
- CAISO responded to NCPA's proposed redlines regarding Load Following Metered Sub-system treatment but we will need to see how they fit in with the next proposal.
  - Rejected language exempting LFMSS from reliability cost allocations
  - Accepted IRP Tier 1 proposal to base cost on LFMSS net portfolio deviations
  - Rejected IRP Tier 2 proposal to base cost on LFMSS net portfolio deviations and countered by proposing to base cost on net metered demand
  - Rejected NCPA tariff redlines.
- This initiative will explore new Day-Ahead products that will address ramping needs between intervals and uncertainty that can occur between the Day-Ahead and real-time markets.
- CAISO reviewed the need for new products along with data supporting uncertainty concerns:
  - Uncertainty between Day-Ahead and real-time market has increased from 2017 to 2019 and CAISO operators are addressing this development with out of market actions which disrupts market efficiency
  - Historically, generators had higher certainty to know if they would be scheduled in real-time
  - Due to uncertainty and changing resource fleet, commitment decisions are no longer necessarily known
  - Gas, hydro, storage, and imports need to cover costs to be available for dispatch in real-time – this will be accomplished with imbalance reserves
- New products:
  - Imbalance Reserve Product (IRP) will be designed to address granularity and uncertainty between Day-Ahead and real-time markets:
    - Hourly product; 15-minute dispatchable; Biddable; Covers granularity difference and uncertainty between DAM and FMM; All awards are co-optimized and settled simultaneously; DAM has no energy price formation

- issue because the market solves all hours in a single optimization;
      - Stepped relaxation parameters (proposed)
        - NCPA has requested CAISO to allocate LF-MSS costs similar Flexible Ramping Product cost allocations.
    - Addition of Up and Down Reliability Capacity in RUC process used to address gaps between bid in demand and forecast demand. NCPA is advocating to retain right to opt out of RUC.
- Implementation date is to be determined.

#### Transmission Access Charge Structure Enhancements

- CAISO has pushed the initiative back to Q4 2022 in the latest Policy Roadmap and Annual Plan.
- Initiative is currently on hold pending developments from EDAM initiative.
- This initiative considers 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.
- CAISO's draft final proposal includes a hybrid billing determinant consisting of volumetric and peak demand functions at an approximately 50/50 split in order to address costs shifts as well as the full impact of high coincident peak demand, low load factor UCD areas that have relatively lower volumetric use compared to high load factor areas. It received general support from the market and will be presented to the CAISO Board in 2021 and will be implemented at a to be determined point thereafter. The CAISO is working to align the TAC Board consideration with the Extended Day-Ahead Market (EDAM) process so they are aligned to the extent possible. The TAC proposal may possibly need to be updated if the EDAM proposal aspects related to transmission issues drive changes to the TAC initiative.
- NCPA performed an impact analysis and determined that NCPA Members would mostly benefit or be indifferent to the new billing determinant so long as certain LFMSS benefits remain in place.

## Western

### Western Base Resource Tracking (NCPA Pool)

Western Base Resource Tracking - NCPA Pool							
	Actual			Costs & Rates			
	BR Forecast <sup>1</sup> (MWh)	BR Delivered (MWh)	Difference (MWh)	Base Resource & Restoration Fund (\$)	Monthly Cost of BR <sup>2</sup> (\$/MWh)	CAISO LMP Differential <sup>3</sup> (\$/MWh)	12-Mo Rolling Avg. Cost of BR <sup>4</sup> (\$/MWh)
Jul-21	87,298	64,857	(22,441)	\$1,943,287	\$ 29.96	\$ 0.50	\$ 48.51
Aug-21	69,981	-		\$1,943,287	\$ 27.77	\$ -	\$ 47.73
Sep-21	41,024	-		\$1,868,754	\$ 45.55	\$ -	\$ 47.98
Oct-21	30,317	-		\$843,466	\$ 27.82	\$ -	\$ 46.18
Nov-21	14,613	-		\$843,466	\$ 57.72	\$ -	\$ 45.87
Dec-21	13,127	-		\$843,466	\$ 64.25	\$ -	\$ 45.82
Jan-22	10,295	-		\$843,466	\$ 81.93	\$ -	\$ 45.27
Feb-22	8,844	-		\$843,466	\$ 95.37	\$ -	\$ 44.35
Mar-22	15,574	-		\$843,466	\$ 54.16	\$ -	\$ 44.26
Apr-22	41,630	-		\$1,946,358	\$ 46.75	\$ -	\$ 42.76
May-22	78,093	-		\$1,946,358	\$ 24.92	\$ -	\$ 38.53
Jun-22	87,178	-		\$1,946,358	\$ 22.33	\$ -	\$ 35.96
1/ As forecasted in NCPA 21/22 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.							

- NCPA Pool received 64,857 MWh of Base Resource (BR) energy in July 2021 and there was 0 MWh of Displacement Energy. NCPA did not offer any MWh in displacement program to ensure committed capacity through import schedules.
- Pool Members' total savings under Market Efficiency Enhancement Agreement (MEEA) was approximately \$32,434 in July 2021. The cumulative MEEA savings for FY2021 was about \$275,735.

## Interconnection Affairs

### PG&E Update

#### TO-18 Rate Case

- On October 15, 2020 FERC issued a ruling on the PG&E Transmission Owner Tariff 18 Filing.
- The ruling came over four years after the initial filing and over two years from an initial favorable decision back in 2018.
- The ruling is not the end of TO-18 as FERC has requested further testimony and briefs on ROE matters. The initial decision reduced ROE from 10.40% to 9.13%.
- Once ROE is decided, TO-18 rates will be effective for a 12-month period from March 1, 2017 – Feb 28, 2018.

- TO-19, which was settled at a TRR of 98.85% of TO-18 will be effective for a 14-month period from March 1, 2018 – April 30, 2019.
- Recent Developments: FERC denied all PG&E request for rehearing on non-ROE issues and directed further briefing on ROE. PG&E has appealed and NCPA has intervened in that appeal. Paper hearing on ROE awaiting FERC order. Appeal of non-ROE issues pending in DC Circuit Court.

### Permanent Inter-Tie Switch Between Geo Plants 1 and 2

- The permanent no-load intertie switch has been approved by the CAISO. The switch can be used when either the Fulton or Lakeville line is out of service to combine the outputs of Geo Plant 1 and Plant 2.
- NCPA and PG&E operating procedure is complete.
- Use of the Intertie Switch is still pending CPUC approval. Interim solution if necessary will be to use the temporary jumpers as in Jan of 2020.

### Cotenancy Agreement

- PG&E with support from NCPA and SVP filed an amendment that acknowledged CDWR's request for termination. The amendment rejected CDWR's request, pending resolution of the Cost of Removal dispute. All other matters have been delayed until this issue is resolved.
- On September 27, 2019 FERC rejected PG&E's amendment stating PG&E cannot unilaterally extend the term of the Agreement. FERC did not address the cost of removal aspect and the calculation methodology. NCPA has initiated discussions with Members as to how much capacity from CDWR's share should NCPA take.
- In Feb 2021, PG&E came across an opportunity to engage in mediation with CDWR to address the cost of removal issue. NCPA has agreed to join the mediation with PG&E.

### PG&E RY2022 Formula Rate Annual Update

TO-20 was PG&E's first formula rate filing. After the formula is set/final, the revenue requirement is revised through an annual update. This process is FERC approved and allows for a pass through of changing costs without further approval. Amounts charged by PG&E are later trued-up to recorded cost. Annual update schedule is as follows:

- July 1 – Utility posts proposed cost for the next calendar year
- July 1 – Oct 15 – Customers examine new costs and issue discovery
- August 15 – Sept 1 – Technical Conference
- November 1 – Last changes to Annual Update
- December 1 – Utility submits to FERC
- January 1 – New revenue requirement becomes effective

Revenue requirement for RY2022 (Jan 1 – Dec 31, 2022) is as follows:

PG&E Wholesale Rates	Settled RY2021 (Current)	As Filed RY 2022	% Change
Revenue Requirement	\$2B	\$2.6B	30%
HV TAC (\$/MWH)	\$9.77	\$12.80	31%
LV TAC (\$/MWH)	\$13.34	\$17.76	33%

Major contributing factors to the increase are PG&E's:

- \$176M increase to A&G expenses
- \$143M increase to O&M expenses
- \$43M increase to Depreciation Expense
- \$30M increase to Income Taxes

Next Steps:

- TANC is now engaged in the 2022 TRR review process to negotiate with PG&E over amounts found to be excessive or unsupported
- Technical conference scheduled for August 16.
- TANC will consider engagement in SCE's TO rate case in areas/topics where there is no coverage by the Southern (Six Cities, LADWP, CPUC) Joint Interveners. SCE's annual update shows a 27% increase to the HV TAC.
- NCPA in collaboration with CPUC and BAMX will continue reviewing transmission investments in PG&E's STAR Process. CPUC will continue reviewing transmission investments SCE's Stakeholder Review Process (SRP) Process.

## **Debt and Financial Management**

- The Federal Reserve (Fed) policymakers signaled an intention to accelerate a possible post-pandemic interest rate rise as the U.S. makes strong progress on vaccination efforts and inflation heats up. In its updated June projections, 13 of 18 Fed officials indicated they expect to lift short-term rates by the end of 2023, up from only seven in March. Furthermore, seven officials expect rates to rise by the end of 2022 and none projected any rate changes this year.
- Inflation continues to run hot, with substantial price increases in energy, housing, commodities and consumer goods. Over the last two months, both June and July Consumer Price Index posted significant increases at 5.4% each month. The June increase was the largest one-month increase since 2008.
- Despite higher inflation and the possible acceleration of Fed actions to tighten monetary policy, long-term Treasury yields declined flattening over the month.

## **Schedule Coordination Goals**

### **Software Development**

- Applications and Enhancements under development
  - New Chromium-based Deal Manager app was released in the test environment ready for end-user testing
  - Various Prescheduler App enhancements to support SVP Prescheduling, roll out this month
- Customer and Resource Integration
  - EBCE's Frick and Dyer Wind Resource configured and rolled out into production for first Operating Date on 07/02/2021
  - BRT1's Sky River Wind Resource being configured and scheduled for roll out in time for 09/01/2021 Operating Date
  - EBCE's Henrietta D Battery Storage on-going integration and slated for operations on 09/14/2021

### **Network**

- SCADA and Networking team continue to work with a variety of customers in an effort to integrate several new wind, solar and hydro resources. Altamont Wind economic curtailment logic has been draft and approved by all parties, with plans for implementation in late August.
- IS has installed Tenable.SC vulnerability management software on the enterprise network and is scheduled to go through training at the end of August. Plans for future expansion of vulnerability scanning to the control centers are scheduled for September.
- Operations and Support has sent out a re-bid for an Enterprise Phone System replacement to vendors and published to the Agency website. Bids are due back August 30<sup>th</sup> with an anticipation to select a vendor by mid-September. We are planning to have this project complete by Spring of 2022.
- Operations and Support completed another monthly dry run failover of our system to the Disaster Recovery Center. We are anticipating a full failover to occur over a weekend in October of this year to coincide with electric work that will be performed at the Headquarters.

## **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 July 2021 NCPA All Resources Bill (ARB) monthly invoice sent to members on June 22, 2021 contains:

- July 2021 monthly pre-billed budget/forecast amounts;
- May 2021 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;
- April 2021 (2nd Adjustment) NCPA Project settlement true-up and T+12 business day recalculated CAISO settlement true-up allocations;
- February 2021 (3rd Adjustment) T+55 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;



- August 2020 (4th Adjustment) T+9 month recalculated CAISO settlement true-up allocations;
- October 2019 (5th Adjustment) T+18 month recalculated CAISO settlement true-up allocations;
- July 2018 (6th Adjustment) T+33 month recalculated CAISO settlement true-up;
- April 2018 (7th Adjustment) T+36 month CAISO settlement true-up;

## **Legislative & Regulatory**

### **State Update**

- NCPA's Legislative and Regulatory Affairs team has continued its Speakers Series with two sessions in recent weeks. On July 27<sup>th</sup>, the L&R Committee heard from Jan Smutny-Jones, Chief Executive Officer of the California Independent Energy Producers Association. On August 10<sup>th</sup>, Jan Schori, Member of the California Independent System Operator's Board of Governors, joined the Committee for a discussion. Both conversations focused on issues affecting electric utilities in California, with significant discussion of the current power supply and reliability issues the state is experiencing
- Over the past several weeks, NCPA has participated in discussions with the Governor's Office, Department of Finance, California Energy Commission, California Independent System Operator, California Public Utilities Commission, and other utilities regarding the implementation of Governor Newsom's July 20<sup>th</sup> Emergency Proclamation. The proclamation included several provisions intended to help make additional power supply available to support the state's electricity needs through the summer and into the Fall.

## **Human Resources**

### **Hires:**

Chelsea Wilhite joined the Agency's Headquarters' offices as an Accountant Analyst II, on August 23, 2021. Chelsea joins us from the State of California's Auditor's office where she was an Auditor Evaluator. While Chelsea was at the State Auditor's office she was responsible for performing quantitative and qualitative analyses, auditing financial statements and expenditures, researching and implementing new accounting standards, and reviewing reconciliations and journal entries as needed. Chelsea is a California CPA and holds both a Bachelor's degree in Sociology and a Master's Degree in Business Administration from California State University Sacramento.

### **Intern Hires:**

None

### **Promotions:**

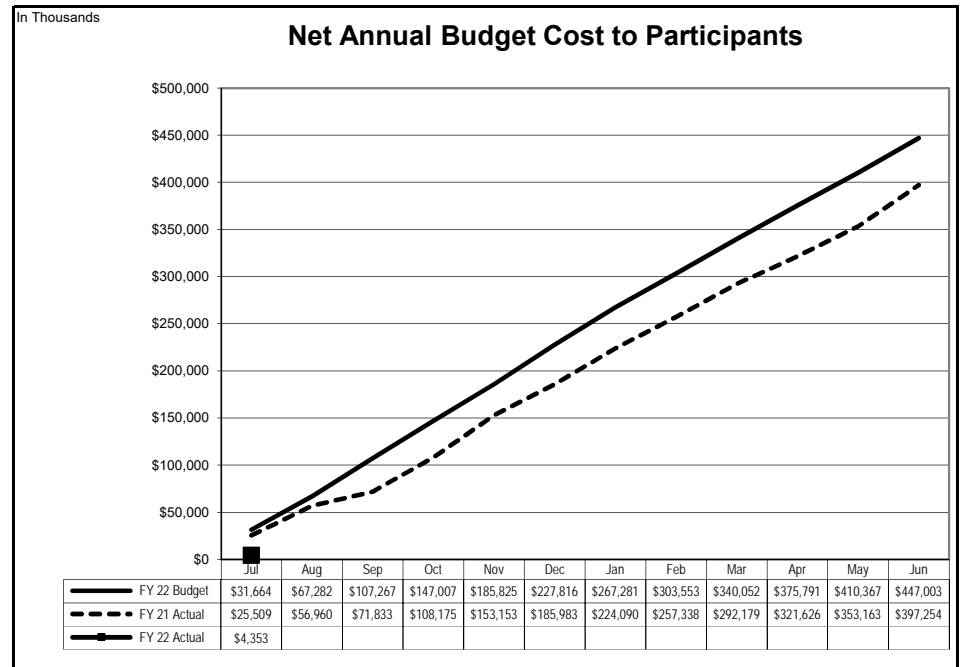
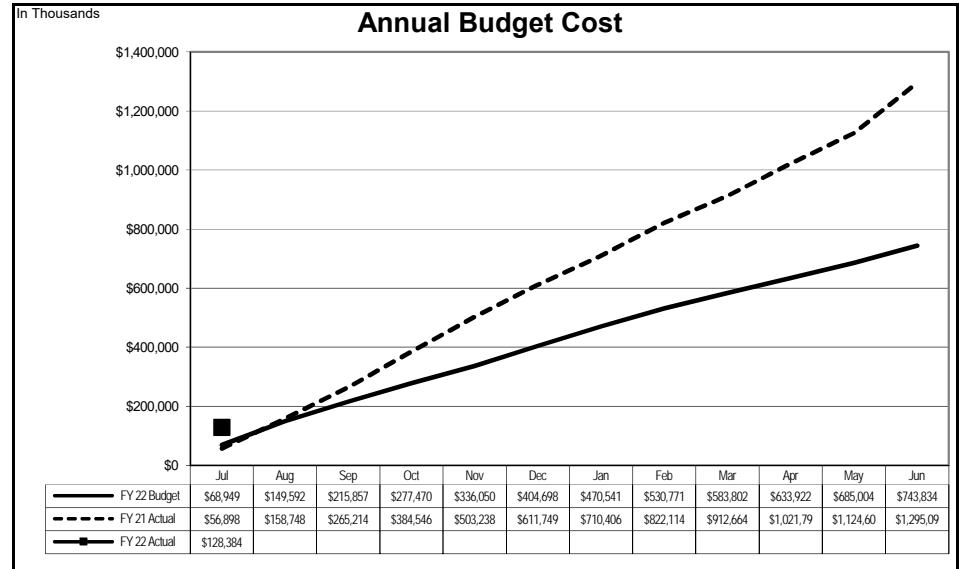
None

### **Separations:**

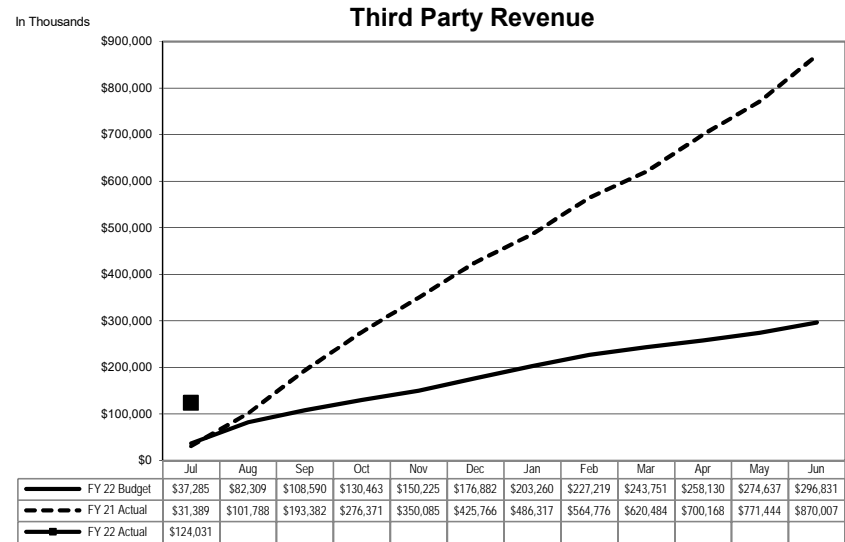
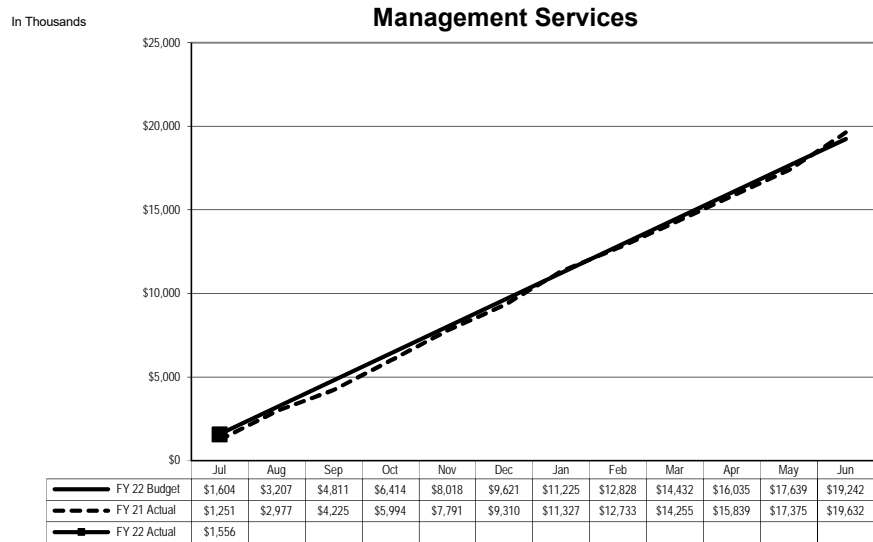
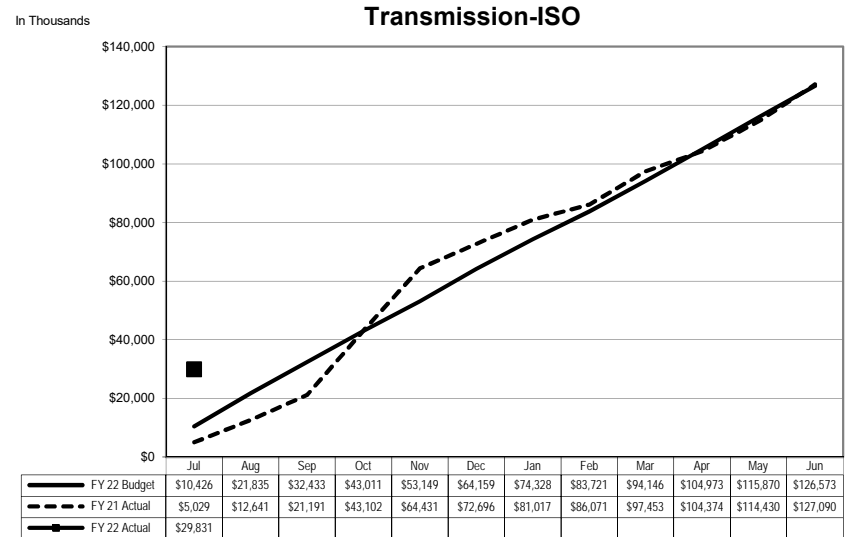
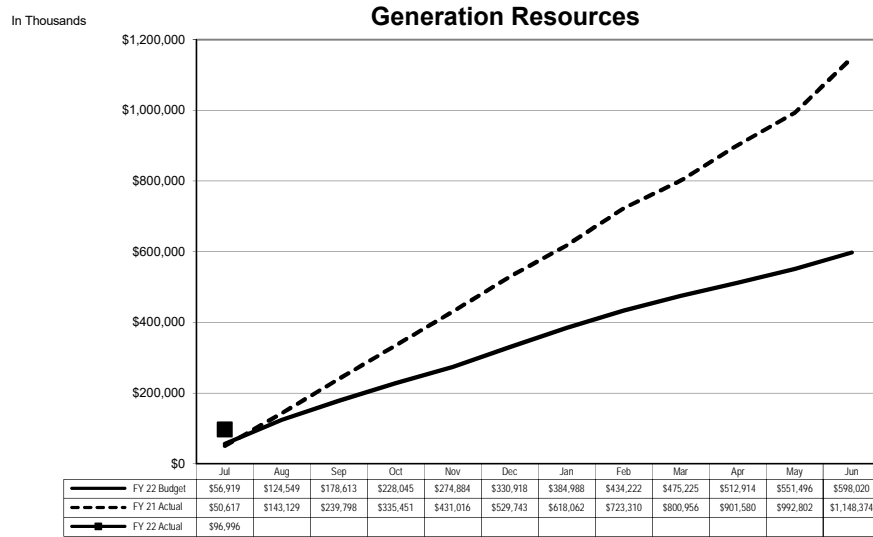
None

**Annual Budget  
2021-2022 Fiscal Year To Date  
As of July 31, 2021**

In Thousands	Program			
	Annual Budget	Actual	Under(Ovr) Budget	YTD % Remaining
<b>GENERATION RESOURCES</b>				
<b>NCPA Plants</b>				
Hydroelectric	54,081	4,761	\$ 49,320	91%
Geothermal Plant	40,662	3,297	37,365	92%
Combustion Turbine No. 1	7,055	633	6,422	91%
Combustion Turbine No. 2 (STIG)	8,962	865	8,097	90%
Lodi Energy Center	88,813	13,170	75,643	85%
	199,574	22,727	176,847	89%
<b>Member Resources - Energy</b>	67,417	8,021	59,395	88%
<b>Member Resources - Natural Gas</b>	2,981	617	2,365	79%
<b>Western Resource</b>	27,302	3,027	24,276	89%
<b>Market Power Purchases</b>	17,225	1,663	15,561	90%
<b>Load Aggregation Costs - ISO</b>	282,244	60,941	221,303	78%
<b>Net GHG Obligations</b>	1,277	-	1,277	
	598,020	96,996	501,024	84%
<b>TRANSMISSION</b>				
<b>Independent System Operator</b>	126,573	29,831	96,741	76%
<b>MANAGEMENT SERVICES</b>				
<b>Legislative &amp; Regulatory</b>				
Legislative Representation	2,101	129	1,972	94%
Regulatory Representation	634	61	573	90%
Western Representation	694	39	655	94%
Customer Programs	481	37	445	92%
	3,911	266	3,644	93%
<b>Judicial Action</b>	300		300	100%
<b>Power Management</b>				
System Control & Load Dispatch	7,427	627	6,801	92%
Forecasting & Prescheduling	2,811	243	2,568	91%
Industry Restructuring	423	36	387	91%
Contract Admin, Interconnection Svcs & Ext. Affairs	975	90	885	91%
Gas Purchase Program	81	5	76	94%
Market Purchase Project	116	7	109	94%
	11,833	1,008	10,825	91%
<b>Energy Risk Management</b>	198	8	191	96%
<b>Settlements</b>	975	79	896	92%
<b>Integrated System Support</b>	307	75	233	76%
<b>Participant Pass Through Costs</b>	1,718	105	1,613	94%
<b>Support Services</b>	-	16	(16)	
	19,242	1,556	17,686	92%
<b>TOTAL ANNUAL BUDGET COST</b>	743,834	128,384	615,450	83%
<b>LESS: THIRD PARTY REVENUE</b>				
<b>Plant ISO Energy Sales</b>	101,640	24,279	77,361	76%
<b>Member Resource ISO Energy Sales</b>	34,353	5,075	29,277	85%
<b>Member Owned Generation ISO Energy Sales</b>	83,030	15,831	67,199	81%
<b>Revenue from Customers</b>	-	33,390	(33,390)	
<b>NCPA Contracts ISO Energy Sales</b>	12,615	4,096	8,519	68%
<b>Western Resource ISO Energy Sales</b>	19,297	5,354	13,942	72%
<b>Load Aggregation Energy Sales</b>	-	28,991	(28,991)	
<b>Ancillary Services Sales</b>	4,317	1,011	3,306	77%
<b>Transmission Sales</b>	110	9	101	92%
<b>Western Credits, Interest &amp; Other Income</b>	41,469	5,994	35,475	86%
	296,831	124,031	172,800	58%
<b>NET ANNUAL BUDGET COST TO PARTICIPANTS</b>	447,003	4,353	\$ 442,651	99%

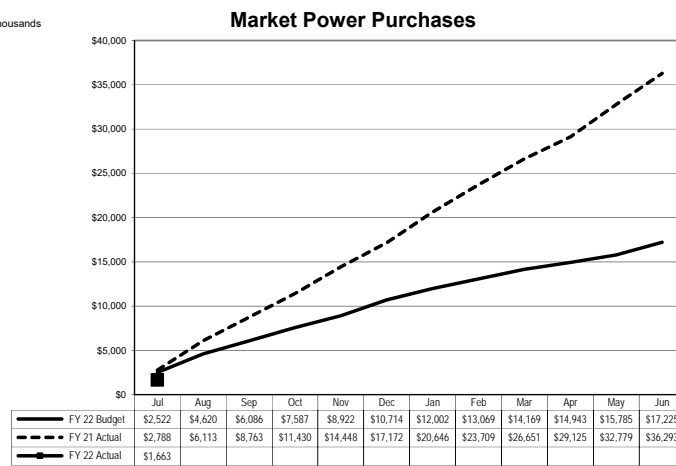
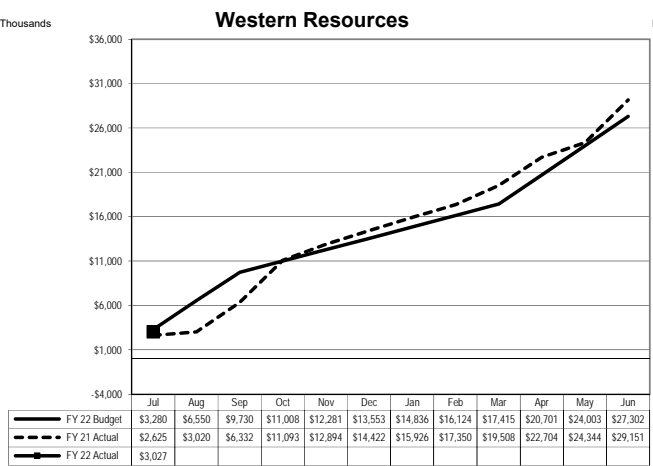
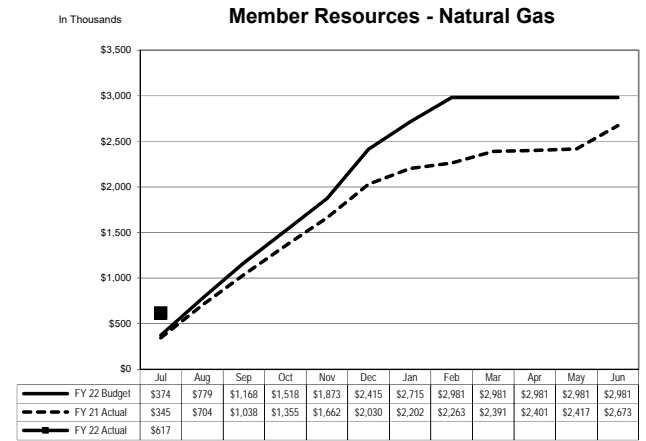
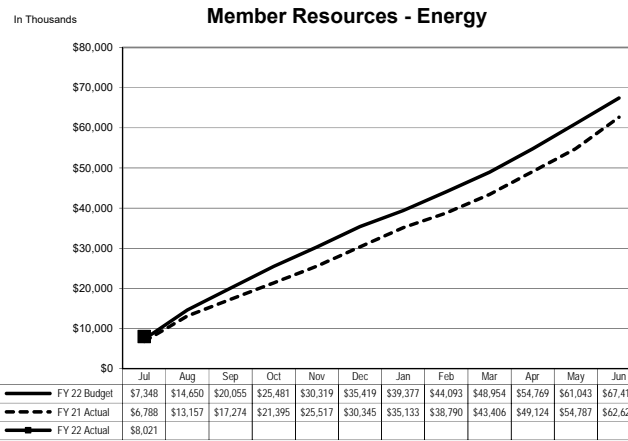
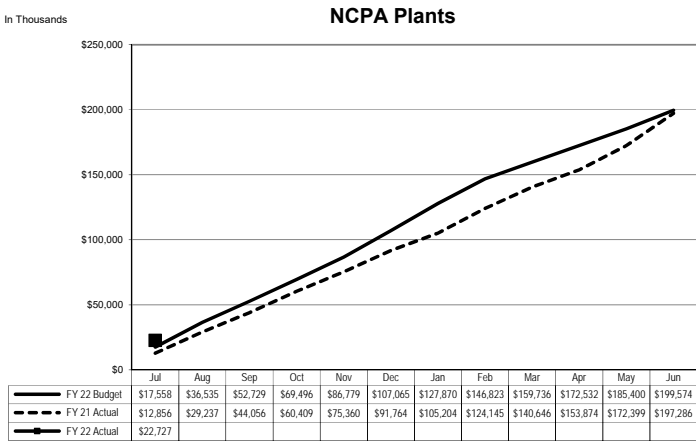


## Annual Budget Budget vs. Actual By Major Area As of July 31, 2021



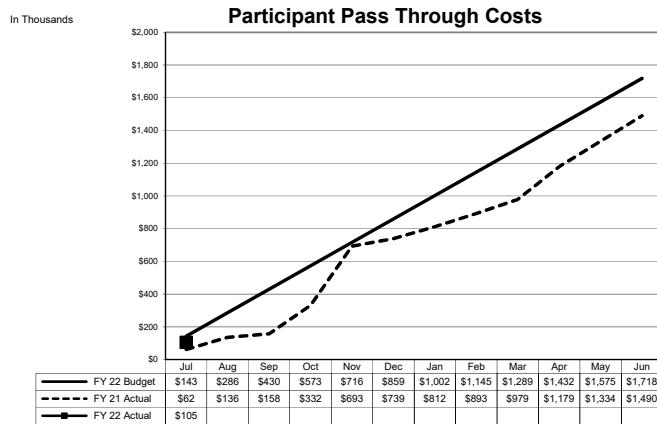
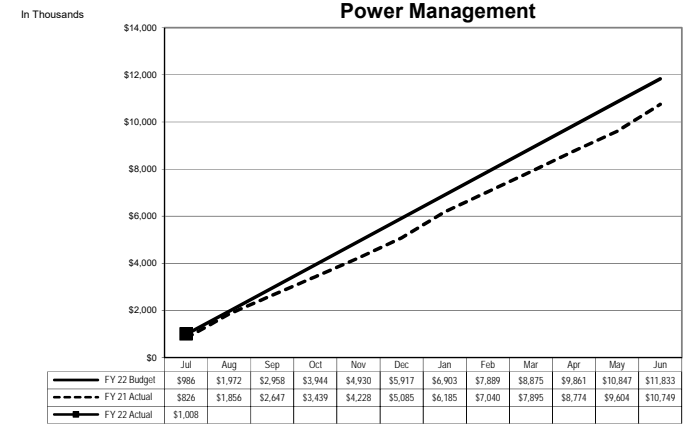
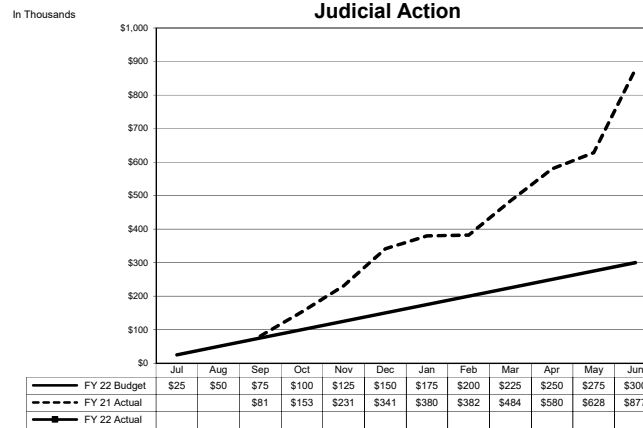
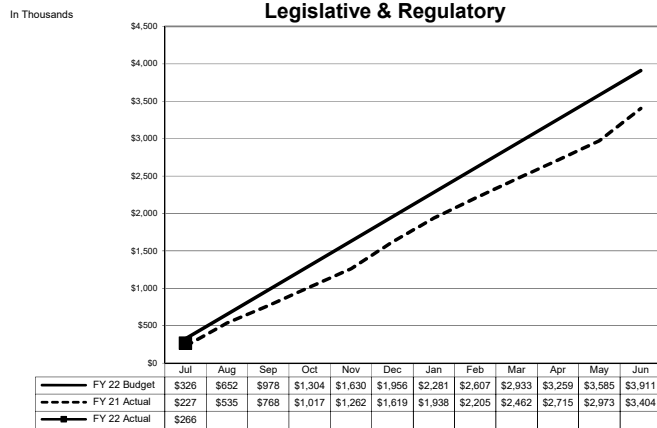
Footnote: Transmission is solely reflective of Independent System Operator (ISO) costs

**Annual Budget Cost  
Generation Resources Analysis By Source  
As of July 31, 2021**

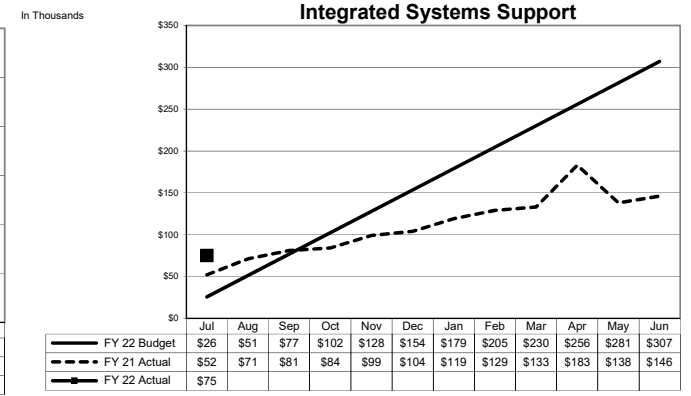
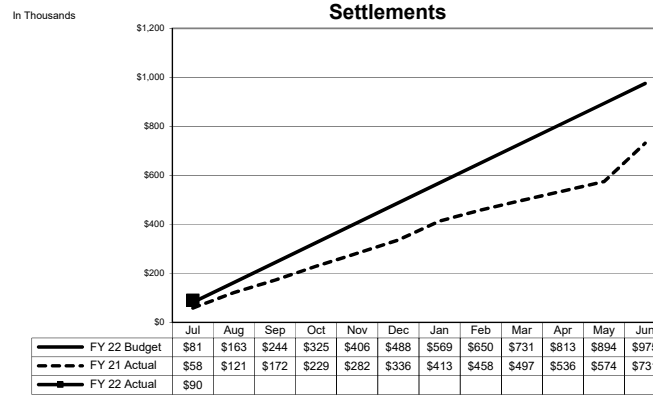
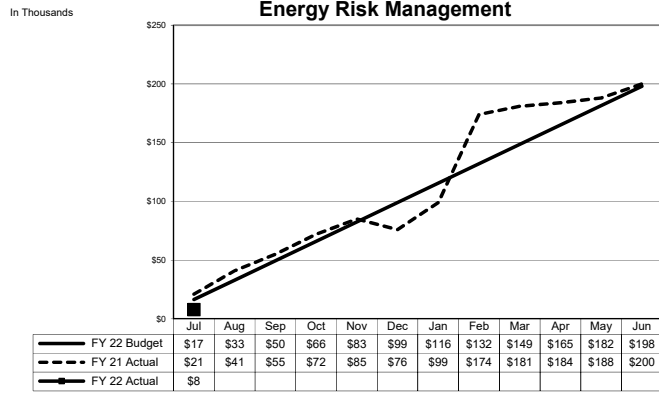


Footnote: Other Resources (Graeagle, BART PV, Gridley PV) are included in Market Power Purchases

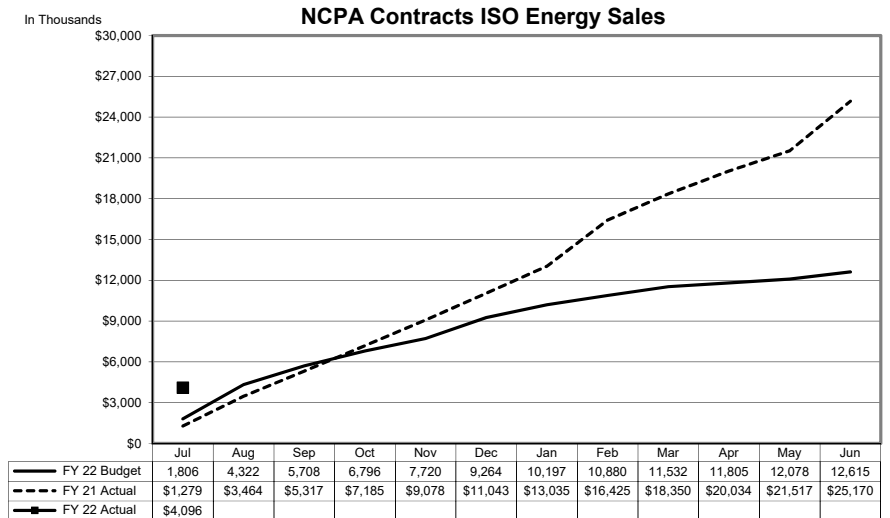
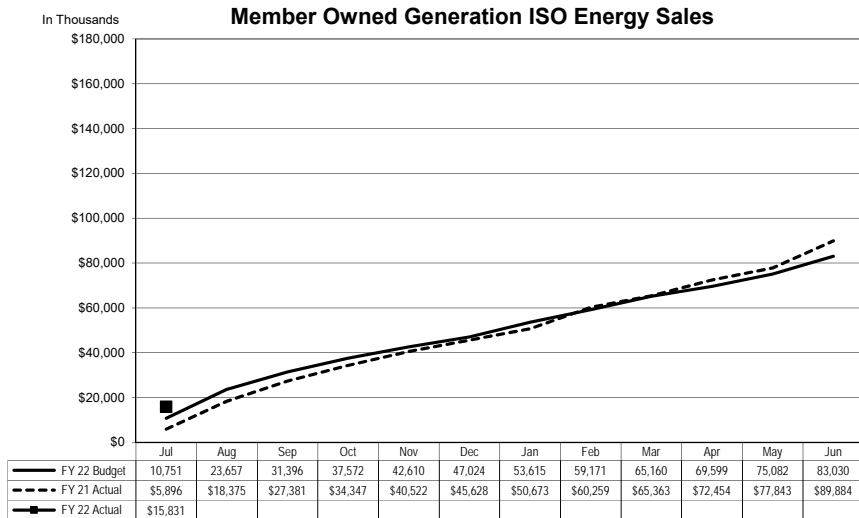
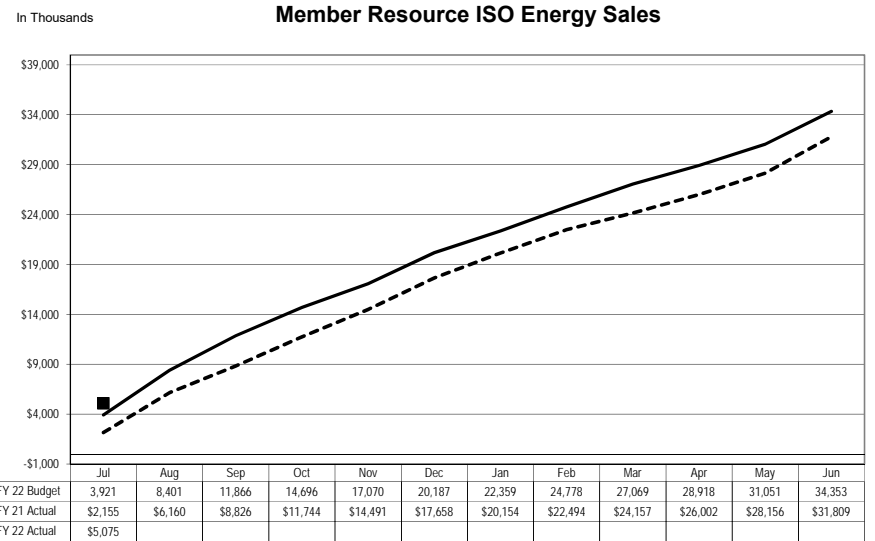
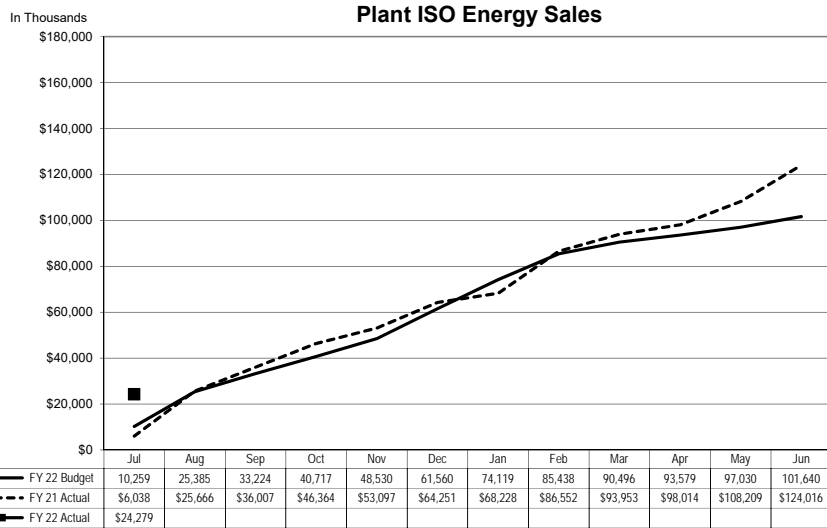
## Annual Budget Cost Management Services Analysis By Source As of July 31, 2021



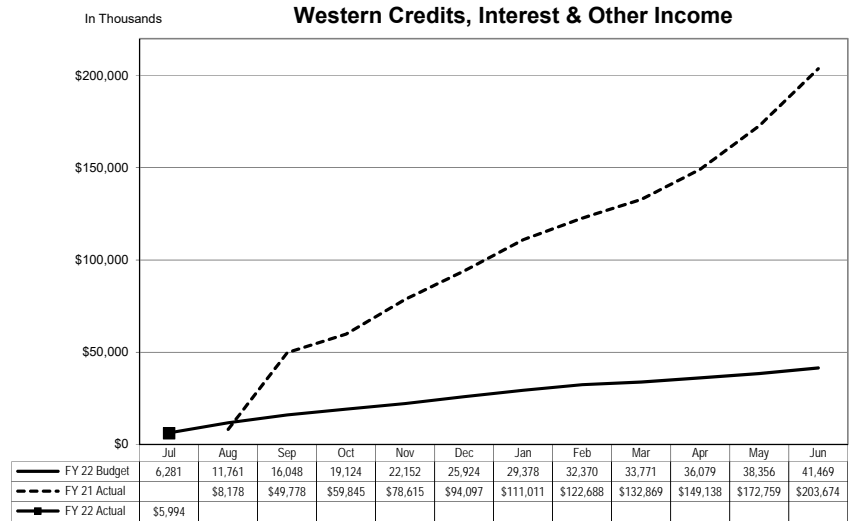
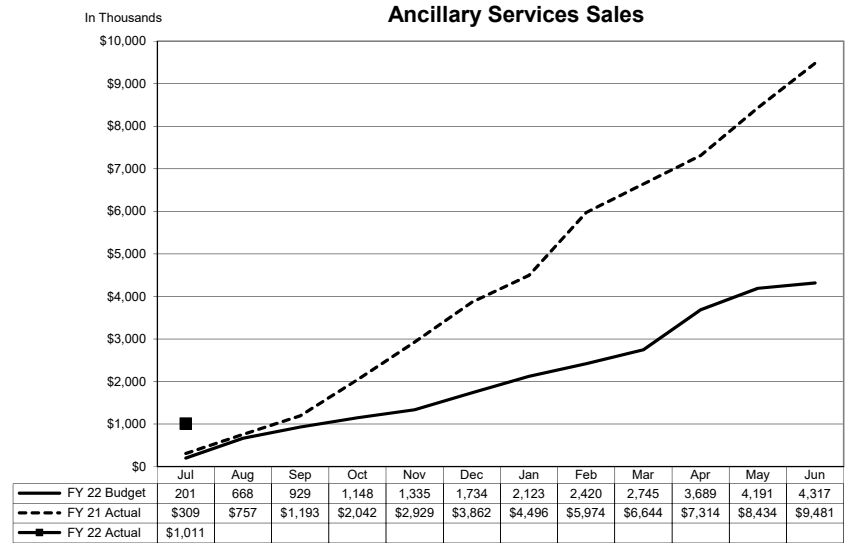
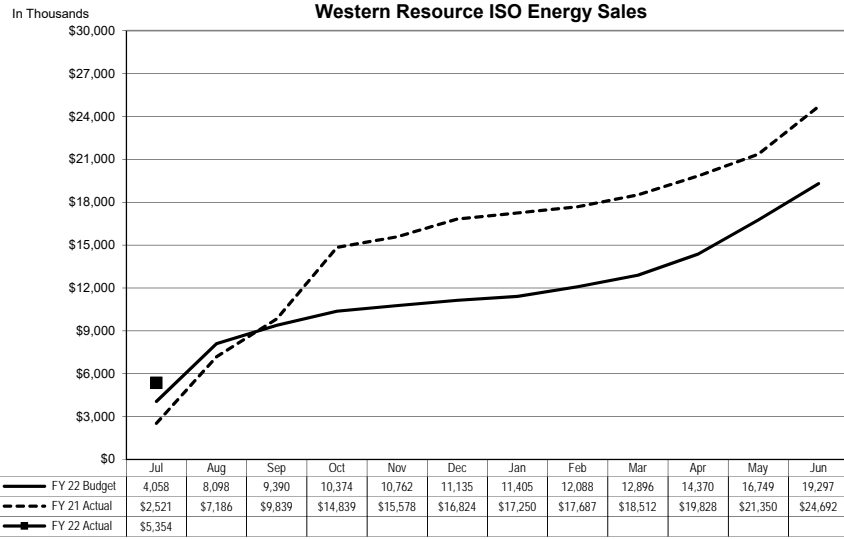
**Annual Budget Cost  
Management Services Analysis By Source  
As of July 31, 2021**



**Annual Budget Cost  
Third Party Revenue Analysis By Source  
As of July 31, 2021**



**Annual Budget Cost  
Third Party Revenue Analysis By Source  
As of July 31, 2021**





**Annual Budget  
NCPA Generation Detail Analysis By Plant  
As of July 31, 2021**

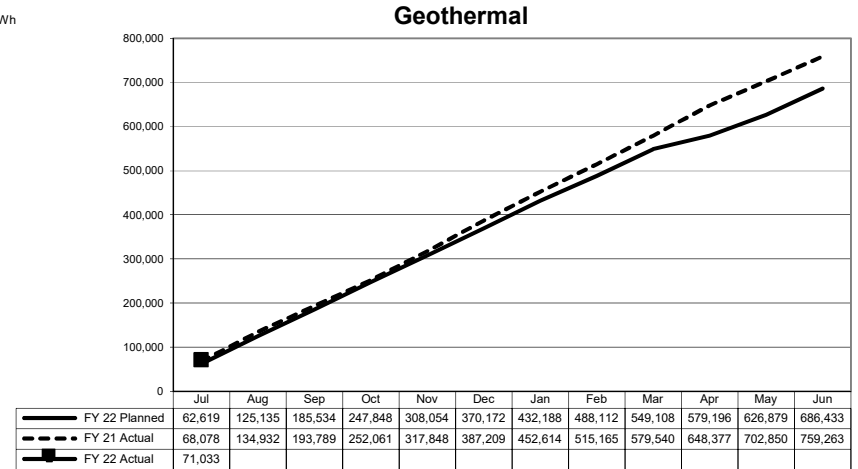
**Generation Cost Analysis**

\$ in thousands

	Geothermal				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
	Routine O & M	\$ 17,803	\$ 1,689	\$ 23.77	\$ 16,115
Capital Assets/Spare Parts Inventories	6,205	329	4.64	5,876	95%
Other Costs	11,197	695	9.79	10,502	94%
CA ISO Charges	504	172	2.42	332	66%
Debt Service	4,953	413	5.81	4,541	92%
Annual Budget	40,662	3,297	46.42	37,365	92%
Less: Third Party Revenue					
Interest Income	382	6	0.09	376	98%
ISO Energy Sales	27,578	4,984	70.16	22,594	82%
Ancillary Services Sales	-	-	-	-	-
Effluent Revenues	750	(506)	(7.13)	1,256	167%
Misc	113	9	0.13	104	92%
	28,823	4,493	63.25	24,330	84%
Net Annual Budget Cost to Participants	\$ 11,839	\$ (1,195)	\$ (16.83)	\$ 13,035	110%
Net Generation--MWh @ Meter	686,433	71,033			
\$/MWh (A)	\$ 10.03	\$ (22.64)			

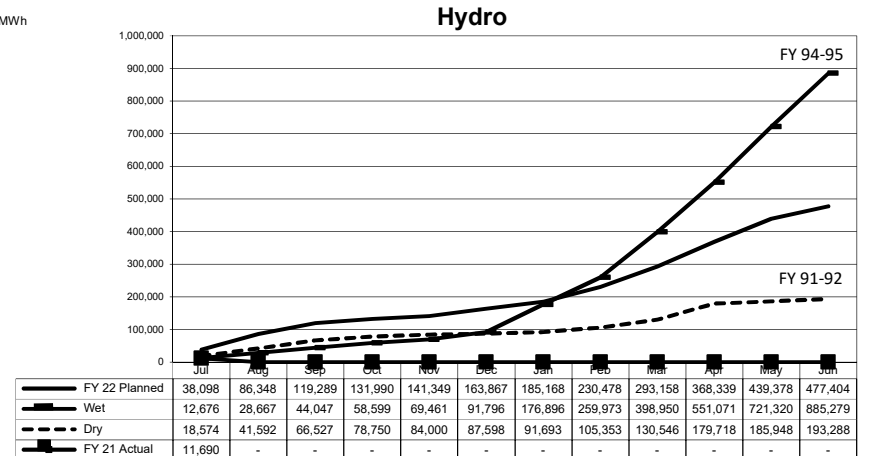
**MWhs Generated**

In MWh



	Hydroelectric				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
	Routine O & M	\$ 9,882	\$ 967	\$ 82.71	\$ 8,915
Capital Assets/Spare Parts Inventories	3,465	194	16.57	3,271	94%
Other Costs	4,677	308	26.34	4,369	93%
CA ISO Charges	2,635	507	43.41	2,127	81%
Debt Service	33,422	2,785	238.26	30,637	92%
Annual Budget	54,081	4,761	407.30	49,320	91%
Less: Third Party Revenue					
Interest Income	670	9	0.76	661	99%
ISO Energy Sales	22,047	3,007	257.25	19,040	86%
Ancillary Services Sales	2,241	289	24.70	1,953	87%
Misc	-	-	-	-	-
	24,959	3,305	282.70	21,654	87%
Net Annual Budget Cost to Participants	\$ 29,123	\$ 1,457	\$ 124.60	\$ 27,666	
Net Generation--MWh @ Meter	477,404	11,690			
\$/MWh (A)	\$ (9.00)	\$ (113.66)			

In MWh



Footnotes:

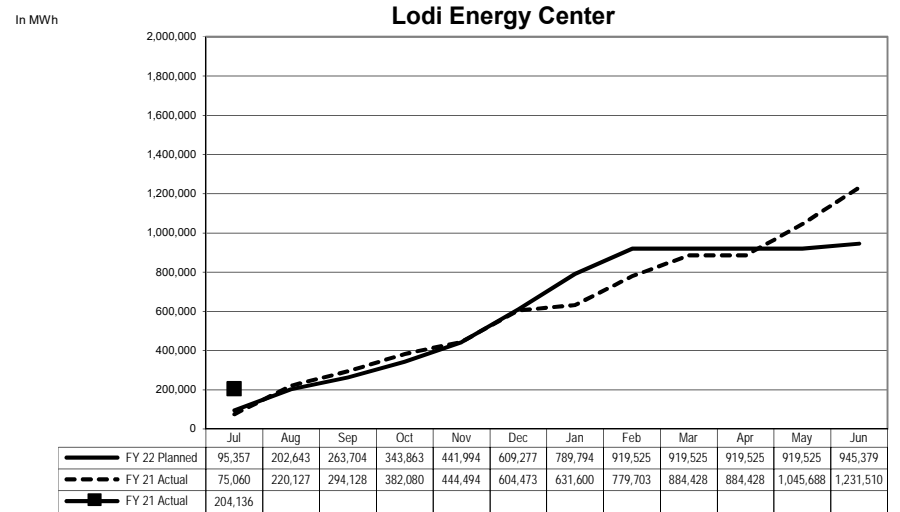
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

**Annual Budget  
NCPA Generation Detail Analysis By Plant  
As of July 31, 2021**

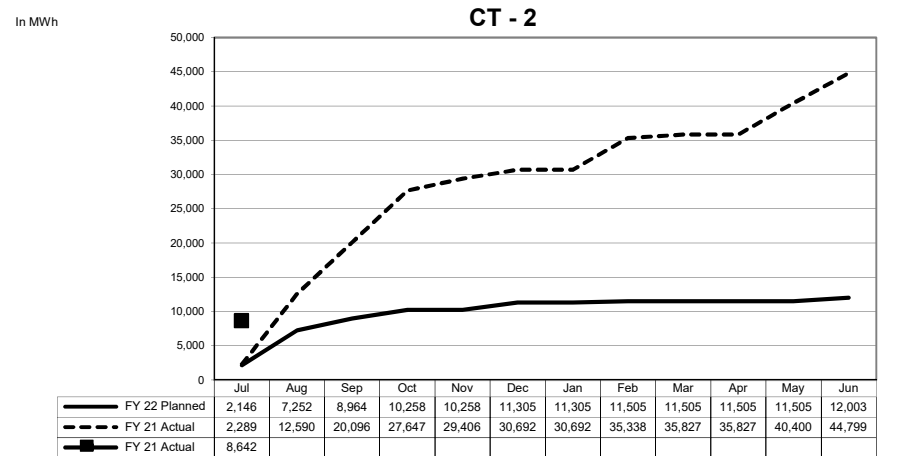
**Generation Cost Analysis**

	Lodi Energy Center				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 9,558	\$ 1,114	\$ 5.46	\$ 8,444	88%
Fuel	31,029	7,298	35.75	23,731	76%
AB 32 GHG Offset	6,269	1,402	6.87	4,867	0%
CA ISO Charges and Energy Purchases	3,137	497	2.43	2,640	84%
Capital Assets/Spare Parts Inventories	5,007	163	0.80	4,843	97%
Other Costs	7,805	499	2.45	7,305	94%
Debt Service	26,008	2,197	10.76	23,811	92%
<b>Annual Budget</b>	<b>88,813</b>	<b>13,170</b>	<b>64.52</b>	<b>75,643</b>	<b>85%</b>
Less: Third Party Revenue					
Interest Income	386	22	0.11	364	94%
ISO Energy Sales	49,394	14,258	69.84	35,136	71%
Ancillary Services Sales	1,152	686	3.36	466	40%
Transfer Gas Credit	-	-	-	-	0%
GHG Allowance Credits	6,102	1,402	6.87	4,700	77%
Misc	-	-	-	-	0%
	57,034	16,368	80.18	40,666	71%
<b>Net Annual Budget Cost to Participants</b>	<b>\$ 31,779</b>	<b>\$ (3,197)</b>	<b>\$ (15.66)</b>	<b>\$ 34,977</b>	<b>110%</b>
Net Generation--MWh @ Meter	945,379	204,136			
<b>\$/MWh (A)</b>	<b>\$ 6.10</b>	<b>\$ (26.43)</b>			

**MWhs Generated**



	Combustion Turbine No. 2 (STIG)				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 1,627	\$ 122	\$ 14.11	\$ 1,505	93%
Fuel and Pipeline Transport Charges	1,265	249	28.86	1,016	80%
Capital Assets/Spare Parts Inventories	46	-	-	46	100%
Other Costs	735	40	4.61	695	95%
CA ISO Charges	136	34	3.89	102	75%
Debt Service	5,048	421	48.68	4,627	92%
<b>Annual Budget</b>	<b>8,858</b>	<b>865</b>	<b>100.15</b>	<b>7,993</b>	<b>90%</b>
Less: Third Party Revenue					
Interest Income	109	2	0.22	107	98%
ISO Energy Sales	1,321	996	115.31	324	25%
Ancillary Service Sales	-	-	-	-	0%
Fuel and Pipeline Transport Credits	1,788	125	14.43	1,663	93%
GHG Allowance Credits	104	-	-	104	100%
Misc	-	-	-	-	0%
	3,322	1,123	129.96	2,199	66%
<b>Net Annual Budget Cost to Participants</b>	<b>\$ 5,536</b>	<b>\$ (258)</b>	<b>\$ (29.81)</b>	<b>\$ 5,794</b>	<b>105%</b>
Net Generation--MWh @ Meter	12,003	8,642			
<b>\$/MWh (A)</b>	<b>\$ 40.69</b>	<b>\$ (78.49)</b>			



**Footnotes:**

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

**Annual Budget  
NCPA Generation Detail Analysis By Plant  
As of July 31, 2021**

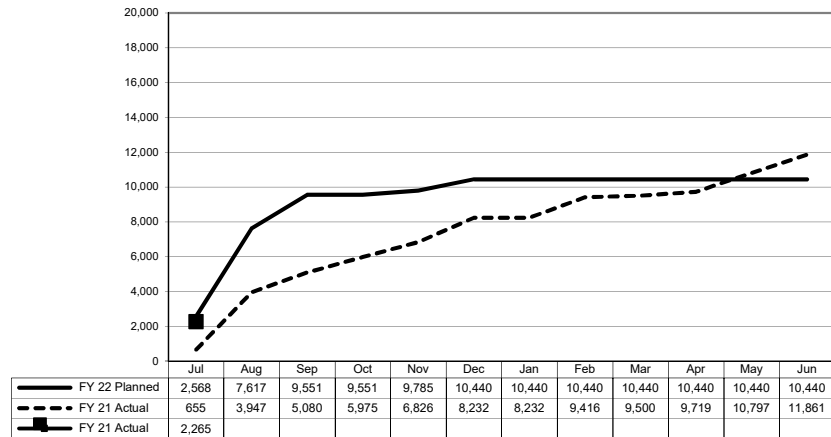
**Generation Cost Analysis**

	Combustion Turbine No. 1				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 2,497	\$ 186	\$ 81.94	\$ 2,311	93%
Fuel and Pipeline Transport Charges	792	84	37.00	708	89%
Capital Assets/Spare Parts Inventories	2,573	83	36.78	2,490	97%
Other Costs	1,104	68	30.18	1,035	94%
CA ISO Charges	90	212	93.46	(122)	-136%
Debt Service	-	-	-	-	
Annual Budget	7,055	633	279.37	6,422	91%
Less: Third Party Revenue					
Interest Income	-	4		(4)	
ISO Energy Sales	1,300	1,034	456.42	266	20%
Ancillary Services Sales	-	-	-	-	0%
Misc	-	-	-	-	0%
	1,300	1,038	456.42	262	20%
Net Annual Budget Cost to Participants	\$ 5,755	\$ (405)	\$ (178.63)	\$ 6,160	107%
Net Generation--MWh @ Meter	10,440	2,265			
\$/MWh (A)	\$ 551.26	\$ (178.63)			

**MWhs Generated**

In MWh

**CT - 1**



Footnotes:

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