



Northern California Power Agency  
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# BUSINESS PROGRESS REPORT

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2023  
NOVEMBER

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# Generation Costs & Reliability

## Combustion Turbine Project

### Unit Operation for October 2023

Unit	Availability		Production		Reason for Run
CT1 Alameda	Unit 1	Unit 2	Unit 1	1,103.5 MWh	CAISO/Exceptional Dispatch / CAISO/Exceptional Dispatch
	96.9%	99.3%	Unit 2	852.8 MWh	
Curtailments, Outages, and Comments:					
Unit 1:	10/04 @ 15:13 - 19:37: Air compressor trouble, OMS 14400646 10/10 @ 16:38 - 10/11 @ 10:56: Vibration probe trouble, OMS 14438325 10/17 @ 10:00 - 10:37: Gas pipeline isolation valve comms upgrade, OMS 14469488				
Unit 2:	10/04 @ 15:13 - 19:37; Air compressor trouble, OMS 14400654 10/17 @ 10:00 - 10:37; Gas pipeline isolation valve comms upgrade, OMS 14469500				
Unit	Availability		Production		Reason for Run
CT1 Lodi	99.64%		68.0 MWh		CAISO
Curtailments, Outages, and Comments:					
10/18 @ 08:30 - 08:54; Line circuit breaker inspection, OMS 14482674 10/27 @ 14:15 - 16:00; Fuel gas compressor controller trouble, OMS 14538213					
Unit	Availability		Production		Reason for Run
CT2 STIG	100.0%		1,796.6 MWh		CAISO
Curtailments, Outages, and Comments:					
Normal operation.					
Unit	Availability		Production		Reason for Run
LEC	98.7%		125,067 MWh		CAISO
Curtailments, Outages, and Comments:					
10/06 @ 11:13 - 14:11; Gas line regulator loss of pressure, OMS 14415528 10/21 @ 15:00 - 15:57; Start failure, blade path spread trip, OMS 14503184 10/21 @ 16:13 - 22:01; Blowdown tank level transmitter trouble, OMS 14503184					

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

## Geothermal Facilities

### Availability/Production for October 2023

Unit	Availability		Net Electricity Generated/Water Delivered		Out-of-Service/Descriptors
Unit 1	0	%	0	MWh	U1 down for outage
Unit 2	100	%	35,735	MWh	U2 in service
Unit 3	N/A	%	N/A	-	Unit 3 remains out of service.
Unit 4	0	%	0	MWh	U4 out of service on 9/12/2023 for maintenance
Southeast Geysers Effluent Pipeline	100	%	93.2	mgallons	Average flow rate: 2,138 gpm
Southeast Solar Plant	N/A		106,301	KWh	Year-to-date KWh: 1,182,961
Bear Canyon Pump Station Zero Solar	N/A		74,472	KWh	Year-to-date KWh: 953,977

\* Accounts for an additional 829 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

## Hydroelectric Project

### Availability/Production for October 2023

Units	Availability	Net Electricity Generated	Out-of-Service
<b>Collierville Unit 1</b>	64.83%	14662 MWh	CV Unit 1 – Out of Service on 10/1/23 from 0603 to 1838 for Dual Unit intake and trashrack outage and from 10/16/23 to 10/26/23 from 0720 to 1624 for Annual Maintenance.
<b>Collierville Unit 2</b>	60.91%	17891 MWh	CV Unit 2 – Out of Service on 10/1/23 to 10/23/23 from 0603 to 1821 for Annual Maintenance and on 10/24/23 from 0734 to 1821 for 480 Volt Bus Maintenance.
<b>Spicer Unit 1</b>	27.59%	447 MWh	NSM1- Out of Service on 10/2/23 to 10/24/23 from 0348 to 1428 for PG&E work at Salt Springs
<b>Spicer Unit 2</b>	27.58%	462 MWh	NSM2- Out of Service on 10/2/23 to 10/24/23 from 0348 to 1434 for PG&E work at Salt Springs
<b>Spicer Unit 3</b>	27.62%	76 MWh	NSM3- Out of Service on 10/2/23 to 10/24/23 from 0348 to 1434 for PG&E work at Salt Springs

#### Operations & Maintenance Activities:

- CMMS work orders
- Annual Training

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

- There were no Lost Time, Cal OSHA Recordable or vehicle accidents in the month of October.
- 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 October 21, 2023.
- 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.

### October 2023 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	2	1	0
Days since Recordable	1,075	117	106	4,104
Work Hours Since Last Recordable	95,813	23,561	24,242	3,012,062
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	1	0	0
Days without LTA	5,854	136	11,024	7,117
Work Hours without LTA	528,328	27,422	894,487	2,634,080
Vehicle Incident (month)	0	0	0	0
Vehicle Incident (calendar year)	1	4	1	0

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

\*\* NCPA HQ: Roseville employees at the Main Office

Data originates from OSHA logs, HR records and payroll information.  
Days and Hours are calculated through pay period ended October 21, 2023.

## 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 2023 Data**

	<b>October 2023</b>		<b>Calendar Year 2023</b>	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	385.77 10/6 @ 1800	190,959	440.7 8/15 @ 1700	1,901,499
SVP	648.86 10/6 @ 1600	397,259	669.22 8/23 @ 1600	3,833,548
MSSA	1032.61 10/6 @ 1700	588,218	1103.22 8/23 @ 1700	5,735,047

#### **Last Year 2022 Data\***

	<b>October 2022</b>		<b>Calendar Year 2022</b>	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	333.97 10/5 @ 1800	184,984	511.56 9/6 @ 1600	1,907,759
SVP	603.81 10/19 @ 1600	389,893	687.74 9/6 @ 1300	3,768,826
MSSA	925.79 10/19 @ 1700	574,877	1176.2 9/6 @ 1400	5,676,585

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

#### **System Peak Data**

	<b>All Time Peak Demand</b>	<b>2023 Peak Demand</b>
NCPA Pool	517.83 MW on 7/24/06 @ 1500	440.7 8/15 @ 1700
SVP	687.74 MW on 9/6/22 @ 1300	669.22 8/23 @ 1600
MSSA	1176.20 MW on 9/6/22 @ 1400	1103.22 8/23 @ 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>October 2023</b>	<b>Calendar Year 2023</b>
MSSA % Within the Band	97.01%	97.37%

**CAISO Real-time Contingency Dispatches (RTCD):**

1. 0212 hours, 10/09/23

**CAISO Energy Emergency Alerts (EEA):**

- None

**PG&E Public Safety Power Shut-off (PSPS)**

- None

**Pooling, Portfolio Planning & Forecasting**

- NCPA Pool loads during October 2023 were 190,959 MWh versus the budget forecast of 189,618 MWh, resulting in a forecast error of 0.70%. The current weather outlook for the remainder of November 2023 is for above average temperatures. The Pool's November load forecast is 183,120 MWh compared with extrapolated actuals of 181,709 MWh as of November 15, 2023.
- Lodi Energy Center (LEC) ran 500 hours and produced 125,080 MWh.
- During October 2023, 0.38" of rain was recorded at the Big Trees gauge. October average rainfall at Big Trees is 2.59".
- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) has been maintained at \$90/MWh. Releases from NSMR ranged from 140cfs to 350cfs during October.
- New Spicer Meadows storage as of October 31, 2023 was 125,300 acre feet. The historical average storage at the end of October is 91,811 acre feet. As of November 13<sup>th</sup>, storage was 116,956 acre feet.
- Combined Calaveras Project generation for the Pool in October 2023 totaled 17,033MWh, up from 14,233MWh in September 2023.
- Western Base Resource (BR) deliveries for the Pool during October 2023 were 30,298 MWh. The Displacement Program provided an additional hedge of 6,701 MWh in the form of an NP15 Inter-Schedule Coordinator Trade (IST). The Pool's share of expected total delivery from the Western Base Resource for November 2023 is 14,750 MWh, with 7,373 MWh having already been delivered. The WAPA exchange program has been suspended until next spring.
- The PG&E Citygate gas index averaged \$5.88 / MMBtu during the month of October as compared to an average of \$3.67 for September. November's 2023 average City Gate gas price was \$4.90 / MMBtu through the 15<sup>th</sup>. The PG&E Citygate forward price for December 2023 is \$8.68 / MMBtu.
- Day-Ahead PG&E DLAP electricity prices for October averaged \$69.91 / MWh On-Peak and \$59.48 Off-Peak, with a high of \$342.97 and a low of \$24.00. DLAP prices have averaged \$65.74 On-Peak and \$59.67 Off-Peak for the period November 1<sup>st</sup> through the 15<sup>th</sup>, with a low price of \$8.94 and a high of \$110.64. The forward power prices for December are \$98.53 On-Peak and \$90.55 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 January 2024:
  - Monthly System Resource Adequacy Demonstration (filed November 17, 2023)
  - Monthly Supply Plan (filed November 17, 2023)

### **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:

#### **Resource Adequacy Modeling and Program Design (RAMPD) – Slice of Day Near Term Implementation November 8, 2023 Working Group**

NCPA is not adopting a slice of day framework at this time but is closely monitoring CAISO RA activity to ensure it continues to accommodate NCPA Local Regulatory Authorities' RA programs. Most NCPA members operate as a Load Following Metered Sub-System Aggregation (LFMSS) that is required to balance supply and demand every five minutes in real time so we feel the members' current RA programs and LFMSS operations already adequately address state reliability concerns.

#### **CAISO Slice of Day Near Term Implementation Overview:**

- RA showings – No CAISO system / process changes
- CAISO does not receive showings made to the individual LRAs (including CPUC);' this will continue after Slice of Day implementation
- Clarifying existing CAISO process and how these will function under Slice of Day
- Review 2024 Slice of Day test year results in coordination with CPUC
- RAMPD Working Group discussion on Slice of Day & RA program alignment

#### **Slice of Day Overview**

- Monthly showings balancing supply and demand over 24 hourly slices
- Similar counting rules except solar and wind [Variable Energy Resources (VERs)] will be exceedance based and no longer subject to more restrictive Effective Load Carrying Capability (ELCC) reduction. Cap only applies to demand response. No limit on standalone batteries provided sufficient charging capacity is shown. Also no limit on imports, VERS, etc.
- Planning Reserve Margin (PRM) determined by Loss of Load Expectation. Resulting in lower PRMs.
- Load Forecast requirements: 1 in 2, gross load, worst day values

#### **Resource Counting Rules and Showings:**

- The CAISO tariff defers to LRAs to establish Qualifying Capacity (QC) criteria
- CAISO will continue to consume a single QC value from all LRAs
- The QC values the CPUC will provide the CAISO for wind and solar will be based on the monthly gross peak hour
- All RA resources must be able to operate for four or more consecutive hours

- The QC value the CPUC will provide the CAISO is a MW level at which the storage resource is capable of discharging for four or more consecutive hours
- Dispatchable and non-dispatchable resource QCs will not change

### Review CAISO Process Under Slice of Day

- CAISO NQC Determination
  - CPUC to provide single monthly QC value to CAISO
  - VERs only change. QC to CAISO will be greater of gross peak hour value or 0.1.
  - Suppliers and LSEs: show up to NQC value
- Reduction for Deliverability
  - Scope: to test that the transmission system can reasonably ensure that resource adequacy capacity can be delivered to load during stressed system conditions in order to avoid potential system wide blackouts.
  - The deliverability test results in:
    - Fully deliverable resources
    - Partial deliverable resources
    - Non-deliverable resources
  - The “dispatch value” in the CAISO deliverability test has no direct correlation with the QC established by the LRAs and it does not act as a cap to the QC values established by LRAs
  - It is simply a “pass, partial, fail” type test
  - A fully deliverable resource full counts for RA (with the QC value established by the LRA). In the CPUC’s Slice of Day its “energy” may also count during other hours (slices) of the day, as a “simplification” of the RA process.
    - Deliverability is generally the highest at peak load periods and when the load decreases there is less available resulting in potentially more congestion
    - This “extra” congestion should not meaningfully impact overall reliability because the system is not in stressed conditions.
  - A resource may be partially deliverable and only counts for RA for that deliverable part.
    - Generally same percentage across the entire year
  - Energy only resources do not count for RA.
- Deliverability for imports = Maximum Import Capability (MIC)
  - Represents a quantity in MWs determined by the CAISO to be simultaneously deliverable to the aggregate of load in the CAISO Balancing Authority Area (BAA).
  - ISO tests both the deliverability of internal resources and the deliverability of imports, to ensure all RA resources are simultaneously deliverable.
  - Load Serving Entities (LSEs) RA import showings are limited for each intertie to its share of MIC.
  - Calculated yearly by the ISO.
  - Allocated yearly by ISO to LSEs.
- RA Showings at the CAISO
  - No change from previous years
  - LSEs and suppliers should show all RA resources to CAISO reflected in CPUC 24-hour showings (up to NQC value)
    - Partially contracted resources: show contracted amount (sum cannot exceed NQC)
  - RA imports
    - Shown RA must be paired with MIC

- Meeting system and Flex RA Requirements
  - RA shown by LSEs/suppliers is compared to coincident peak demand plus LRA PRMs, to determine whether each LSE met their share of the system requirements
    - CAISO then compares aggregate showings to aggregate system RA requirements
  - Flex RA shown by LSEs/suppliers is compared to their assigned flex requirement, to determine whether each LSE met their share of the flex requirements
    - CAISO then compares aggregate showings to aggregate flex RA requirements.
- Meeting Local RA Requirements
  - Local RA shown by LSEs/suppliers is compared to their assigned CAISO local allocation (CPUC re-assigns their jurisdictional LSEs total local allocation among their jurisdictional LSEs and CPEs), to determine whether each LSE/CPE met their share of the local requirements
  - All RA shown resources are dispatched in technical local studies based on their expected output at the time of that local area peak, up to the RA shown value (NQC) to determine whether all local requirements are met
    - If not then CAISO may issue back-stop (after 30 days cure period)
  - Any necessary local CPM back-stop cost is:
    - First allocated to individual short LSEs/Central Procurement Entities (CPEs)
    - Second allocated to the “collective” (load-share ratio bases)
- Backstop Procurement – Capacity Procurement Mechanism (CPM)
  - Based on Shown RA up to NQC value
- Substitution
  - Based on shown RA up to NQC value
- Bid insertion/Resource Adequacy Availability Incentive Mechanism (RAAIM)
  - Generally based on shown RA (up to NQC value)

### Future Considerations

- No CAISO system/process changes
- RAMP Working Group discussions on Slice of Day & CAISO RA program alignment
- Review 2024 Slice of Day test year results & report in winter/spring 2024
- Process
  - Predevelopment
    - Discussion paper and working groups
  - Proposal Development
    - Issue paper > Straw proposal > Draft final proposal, draft business requirement specifications, draft tariff and business practice manual (BPM) proposed revision requests (PRRs) > Final Proposal
  - Decision
    - ISO Board and WEIM Governing Body > Tariff filing > FERC
  - Implementation
    - BPM, Training, Market Simulation > Go Live

## New Resource Opportunities

- SunZia Wind – PCC1 wind located in New Mexico, COD 2026
- Lodi CT2 Conversion – LM5000 conversion to LM6000. Sierra Local Flex cat 1 RA – Hydrogen capable
- Grace Solar – PCC1 located in Riverside County, CA. COD Dec. 2027
- Wildcat Solar – PCC1 located in Imperial County, CA. COD Jun. 2026

Please contact [mike.whitney@ncpa.com](mailto:mike.whitney@ncpa.com) for more information

## Western

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-23	35,526	63,713	28,187	\$1,276,102	\$ 20.03	\$ (2.07)	\$ 39.84
Aug-23	26,389	61,247	34,858	\$1,276,102	\$ 20.84	\$ (0.99)	\$ 33.28
Sep-23	12,488	36,612	24,124	\$1,275,846	\$ 34.85	\$ 0.12	\$ 29.86
Oct-23	7,510	36,999	29,489	\$479,789	\$ 12.97	\$ 0.03	\$ 27.56
Nov-23	12,128	-		\$479,789	\$ 39.56	\$ -	\$ 26.73
Dec-23	721	-		\$479,789	\$ 665.45	\$ -	\$ 26.60
Jan-24	11,160	-		\$479,789	\$ 42.99	\$ -	\$ 25.90
Feb-24	16,835	-		\$479,789	\$ 28.50	\$ -	\$ 24.71
Mar-24	11,662	-		\$479,789	\$ 41.14	\$ -	\$ 23.93
Apr-24	37,152	-		\$1,252,357	\$ 33.71	\$ -	\$ 24.04
May-24	66,765	-		\$1,252,357	\$ 18.76	\$ -	\$ 25.05
Jun-24	70,929	-		\$1,252,357	\$ 17.66	\$ -	\$ 24.66

1/ As forecasted in NCPA 23/24 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 36,999 MWh of Base Resource (BR) energy in October 2023. This includes displaced energy of 6,701 MWh. MEEA savings was about \$860 and displacement savings was approximately \$29,500.
  - November 2023 WAPA Twelve-Month Rolling Forecast of CVP Generation and Base Resource.
    - Projected FY 2024 BR Generations (October 2023 – September 2024)
      - Projected FY24 BR Generation using 90% forecast is about 4% higher than 10-year historical average.
      - Projected FY24 BR Generation using 50% forecast is about 25% higher than the 10-year historical average.
    - Overall, WY2024 is look pretty good at this time with the high storage levels from precipitation and snow in WY2023.

- WAPA notified Power Customer about the FY 2022 true-up calculation for each First Preference customer's percentage. The total FP Customer actual percentage was 5.45% higher than the estimated percentage. BR Customers will receive \$3.78M credit in FY2024.
- Re-initiation of Consultation of the Long-Term Operations (ROC on LTO) – Trinity Component
  - In September 2021, Bureau of Reclamation and California Department of Water Resources requested a new Endangered Species Act (ESA) with National Marine Fisheries Service (NMFS) and US Fish & Wildlife (USFWS). The ESA requires formal consultation of the CVP operation's impact on the species. As part of the National Environmental Policy Act (NEPA) requirement, Reclamation is required to provide three or four alternatives to compare against baseline operations and analyze the effect in an Environmental Impact Statement for public comment. As a final step, Reclamation publishes a Record of Decision adopting its preferred operational alternative. On February 28, 2022, Reclamation published a Notice of Intent in the Federal Register, for the preparation of an Environmental Impact Statement (EIS).
  - Reclamation provided the preliminary four alternatives for the Trinity portion for the EIS early June and comment due dates were extended a couple times, the deadline ended up being July 21th. Reclamation received 57 public comments but did indicate they will not be providing written responses to these comments.
  - Reclamation requested Power Customers to provide final description for Alternative 5 by September 29, 2023. WAPA submitted the Description for "Low Emissions with Flexible Management" for this deadline.
  - Draft Cooperating Agency Environmental Impact Statement (EIS) sent to Cooperating Agencies on September 15, 2023. Comments are due on October 16<sup>th</sup>, 2023.
    - NCPA became a Cooperating Agency on September 27, 2023. NCPA submitted comments for the draft EIS supporting WAPA's comments, and emphasized a few of the general themes.
    - This EIS does not include Trinity's portion. Reclamation just started working on the EIS for Trinity. Their plan to eventually do a joint analysis on the EIS.
    - Recently Reclamation announced they will be publishing a second draft Cooperating Agency EIS towards the end of 2023 for 2<sup>nd</sup> round of comments.
  - Reclamation is targeting to publish the Public Draft EIS by early 2024 and Record of Decision late 2024.

## **Interconnection Affairs**

### **Rate Case Update – TO18 Refunds**

#### Background

- PG&E calculated refund amount to be \$234M
- PG&E's compliance filing stated ISO is responsible for administering the refunds
- JI protested the refunds calculation citing three issues

- ISO stated it will not issue refunds until there is a FERC Order on PG&E's compliance filing

#### Current Status

- JI and PG&E settled two of the three outstanding issues
- In May 2023, FERC ruled in customers' favor on the income tax accounting issue (the third outstanding issue), and ordered PG&E to make another compliance filing by June 20
- CAISO will issue refunds once FERC issues an order on the compliance filing

#### CAISO Initiative – 2023 Interconnection Process Enhancements Track 2 – NCPA Comments Summary

- Noted if access to interconnection capability is to be determined or prioritized by existing capacity and capacity additions approved in the CAISO TPP, there must be a mechanism for non-jurisdictional LSEs to include their planned resources in the TPP planning process.
- Supported the concept of organizing intake to the Interconnection Queue by prioritizing projects identified in the resource portfolios of LSEs.
- Opposed the use of an auction mechanism to allocate access to grid interconnection. Stated as a load-serving entity that recognizes that load pays the vast majority of CAISO costs, NCPA is focused on reducing costs to its customers. The auction appears to create additional costs that will be passed onto load.

#### PG&E RY2024 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

PG&E Wholesale Rates	RY2023 (Current)	As Filed RY 2024	% Change
Revenue Requirement	\$2.7B	\$2.3B	-15%
HV TAC (\$/MWH)	\$9.50	\$7.68	-19%
LV TAC (\$/MWH)	\$20.40	\$17.87	-12%

Major Contributing Factors to the decrease are PG&E's:

- Prior Over Collections
- \$83M decrease to Administrative and General expenses
- \$6.8M decrease to Operations and Maintenance expenses
- ~\$285M decrease to the Accumulated Depreciation Reserve

Key Notes

- Numbers are subject to change especially since PG&E has not filed its 2024 Transmission Revenue Balancing Account Adjustment
- Indications of upward rate pressure in the future years, \$2B in forecasted capital additions next year
- In Oct, 2023 PG&E will file it's TO-21 formula for rates effective Jan 1, 2024

Next Steps

- TANC is now engaged in the 2024 TRR review process to negotiate with PG&E over amounts found to be excessive or unsupported

### **Debt and Financial Management**

- The Consumer Price Index rose showed prices rose 0% over the last month and 3.2% over the prior year in October, a deceleration from September's 0.4% monthly increase and 3.7% annual gain in prices. As expected, lower energy costs held the headline figures to a smaller gain with energy prices dropping 2.5% month-over-month, driven by lower gas prices, which dropped 5% during the month of October.
- At their November meeting, the Fed kept its benchmark rate at a range of 5.25% to 5.5%, its highest level in 22 years. Since launching the most aggressive series of rate hikes in four decades in March 2022 to fight inflation, the Fed has pulled back and has now raised rates only once since May.
- The Finance Committee received an informational update regarding a prepay opportunity with the Geysers PPA that was signed in December 2022. The indicative results showed an estimated \$60 million in estimated savings. The Committee recommended staff continue to explore this option.

## **Schedule Coordination Goals**

### **Network**

- SCADA and Networking team is currently working with a number of stakeholders to bring a variety of different generation projects online within the next few months. This includes
  - Scarlett 1A and 1B
  - Lodi Strategic Reserve
  - NID Deer Creek
  - Proxima Solar
- IS continues the work toward preparing the HQ and DRC Control Centers to be compliant with the NERC CIP Medium standards as we continue to work with AESI to review draft CIP-007, CIP-009 and CIP-010 procedures. Several new draft recovery procedures for a variety of cyber assets have been developed and will continue to be refined. Infrastructure improvement continue to be part of this process to upgrade and refresh older software and hardware with the latest versions.
- Operations and Support Oracle DBA team has rolled out phase 5 of the meter data cleanup which includes archiving old legacy data into a separate database. This is an effort to comply with retention policies and to improve query performance.
- IS continues to work with Facilities to bring online a new visitor management program which is expected to go live later this fall.

## **NCPA Bills & Settlements**

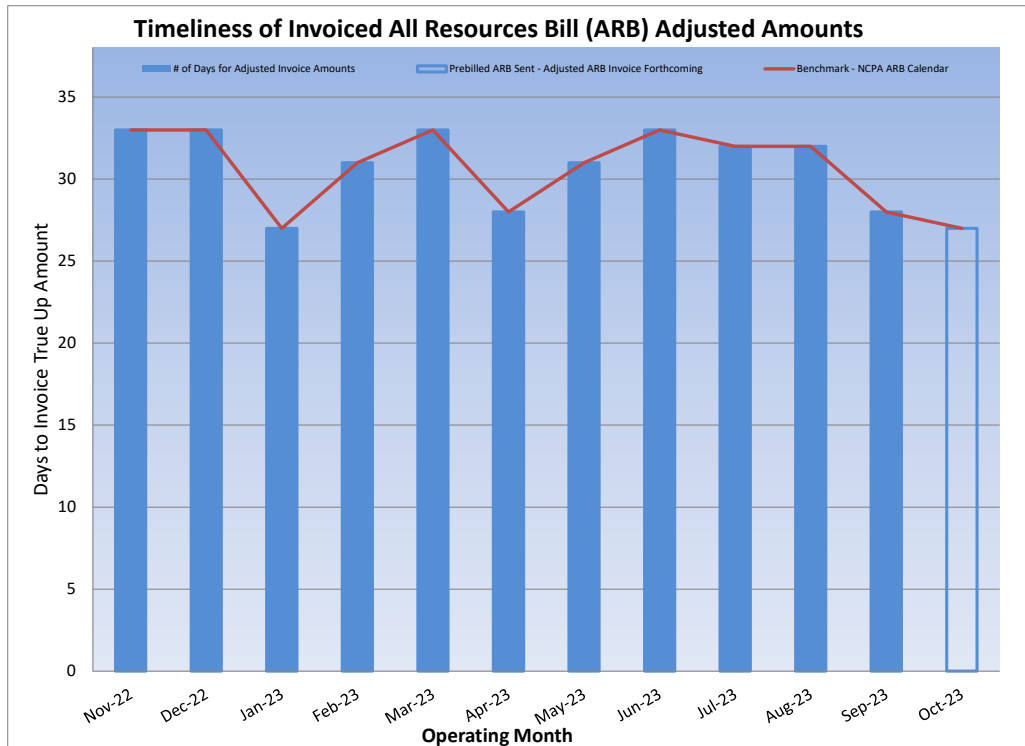
### **Progress Against the Strategic Plan**

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

The October 2023 NCPA All Resources Bill (ARB) monthly invoice sent to members on September 25, 2023 contains:

- October 2023 monthly pre-billed budget/forecast amounts;
- August 2023 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;
- July 2023 (2nd Adjustment) NCPA Project settlement true-up and T+20 business day recalculated CAISO settlement true-up allocations;
- May 2023 (3rd Adjustment) T+70 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;
- September 2022 (4th Adjustment) T+11-month recalculated CAISO settlement true-up allocations;
- November 2021 (5<sup>th</sup> Adjustment) T+21-month recalculated CAISO settlement true-up;
- August 2021 (6th Adjustment) T+24-month recalculated CAISO settlement true-up;
- October 2020 (6th Adjustment) T+33-month recalculated CAISO settlement true-up;
- July 2020 (7th Adjustment) T+36-month CAISO settlement true-up





## **Legislative & Regulatory**

### **Customer Programs Update:**

- Emily Lemei, Customer Programs Manager, was selected by the California Air Resources Board (CARB) to serve on the Truck Regulations Implementation Group (TRIG), Rule Provisions subcommittee. The purpose of the TRIG is to engage in active dialog with interested stakeholders to smooth implementation of the Advanced Clean Fleets (ACF) regulations. Meetings will be held quarterly, starting in December 2023.

### **Federal Update:**

- NCPA took part in a series of FERC meetings as part of a TAPS delegation visit to Washington, DC in early November. NCPA plays a key role in the operation of TAPS, Chairing the organization and the Regulatory Committee. Much of the discussion with FERC focused on the value of joint ownership as it relates to transmission investment, along with continued calls to keep customer rates affordable. To that end, a key message conveyed to FERC was our continued concern about the desire for FERC to offer financial incentives for transmission investment that is not needed to spur investment. Additional conversation with the FERC's Office of Electric Reliability targeted reducing the regulatory burdens and costs associated with grid reliability.
- Scott Tomashefsky, Regulatory Affairs Manager, provided the opening keynote at the WECC Reliability & Security Workshop on October 31. Mr. Tomashefsky highlighted the importance of internal controls in maintaining a reliable grid.

## **Human Resources**

### **Hires:**

Kale Perry joined NCPA Headquarters as a Power Settlements Analyst I, effective October 16, 2023. Kale joins us from the Public Company Accounting Oversight Board, where he was a Data Analyst Contractor. In this role, he handled ad hoc data analysis requests, wrote Excel macros/VBA to automate quarterly data pull and analysis, and created Power BI Dashboards to provide easy access for analysts to current and historical data stored in multiple files. Kale has a Bachelor of Science degree in Computer Information Systems with a minor in Data Science and Statistics from the State University of New York at Fredonia.

Jim Beach joined NCPA's Geothermal Facilities as Plant Manager, effective November 6, 2023. Jim joins us from A.E.S. Southland L.L.C, where he was the Regional Maintenance Manager. In this role, he managed a diverse team of three team leaders, five planners/schedulers, and over forty skilled technicians across three Southern California locations. Jim oversaw the reliability and safe operations of seven natural gas-fired units, 2208 MW in total (three units totaling 833 MW in Redondo Beach, CA, one unit totaling 226 MW at Huntington Beach, CA, and three units totaling 1149 MW in Long Beach, CA). Jim brings over 23 years of power plant experience.

### **Intern Hires:**

None.

### **Promotions:**

None.

### **Separations:**

Jason Ingham retired from his position as a Mechanic Operator- Lead Person at NCPA's Geothermal Facility on October 23, 2023, after 28 years of service.

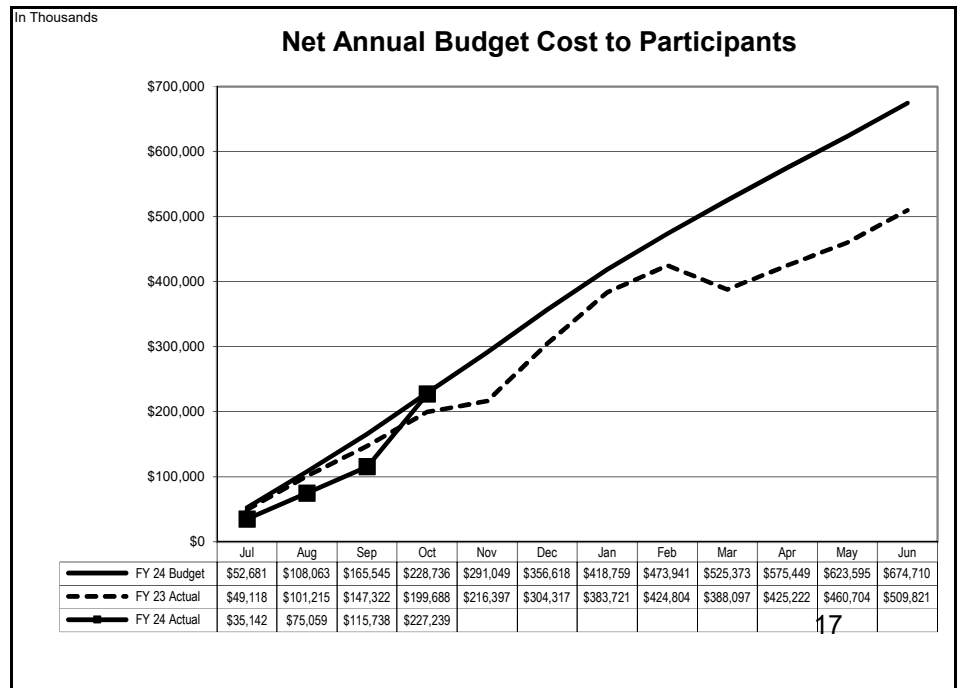
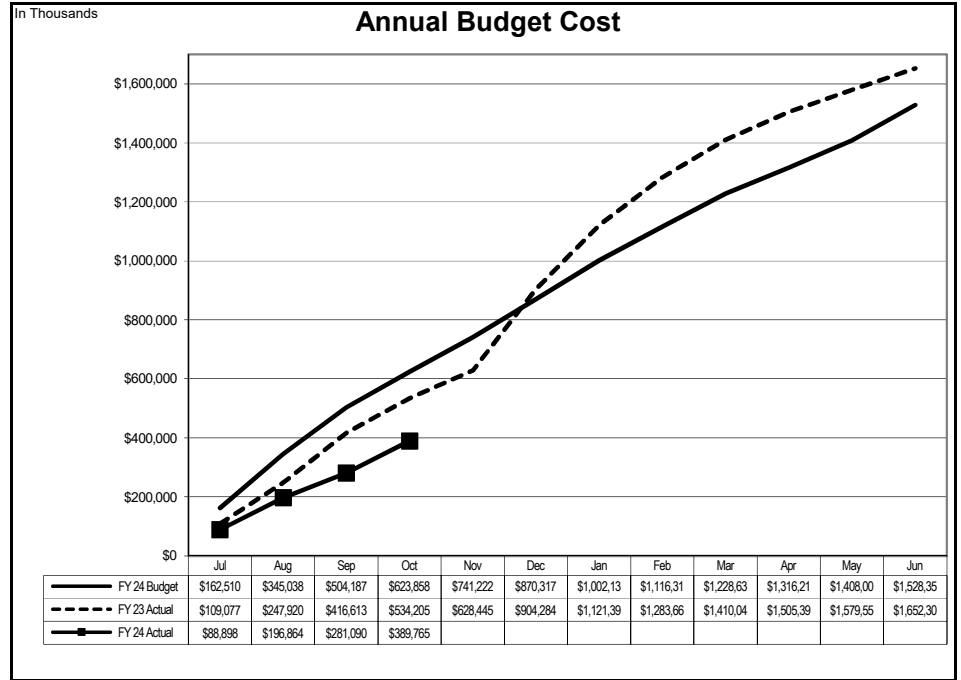
Eric Pringle resigned from his position as a CT Specialist III at NCPA's Lodi Energy Center on October 28, 2023, after 1.5 years of service.

Herb Harsch retired from his position as Supervisor II at NCPA's Hydroelectric Facility on November 2, 2023, after 11.5 years of service.

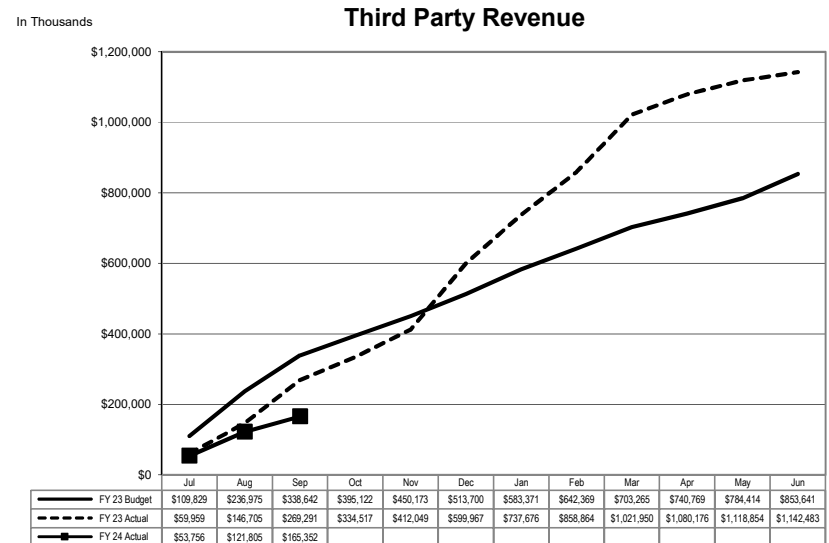
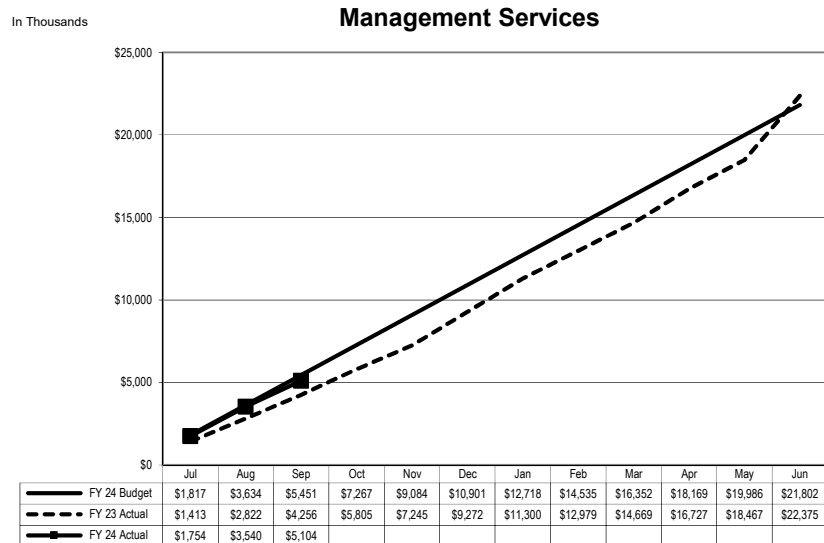
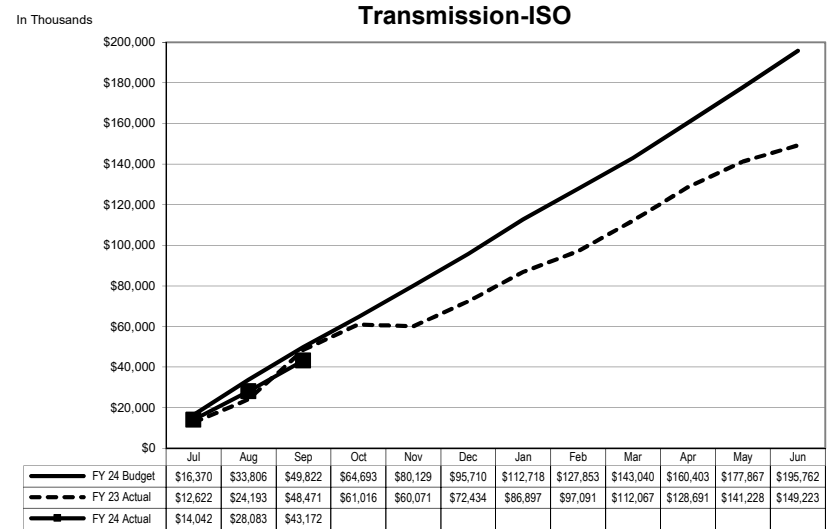
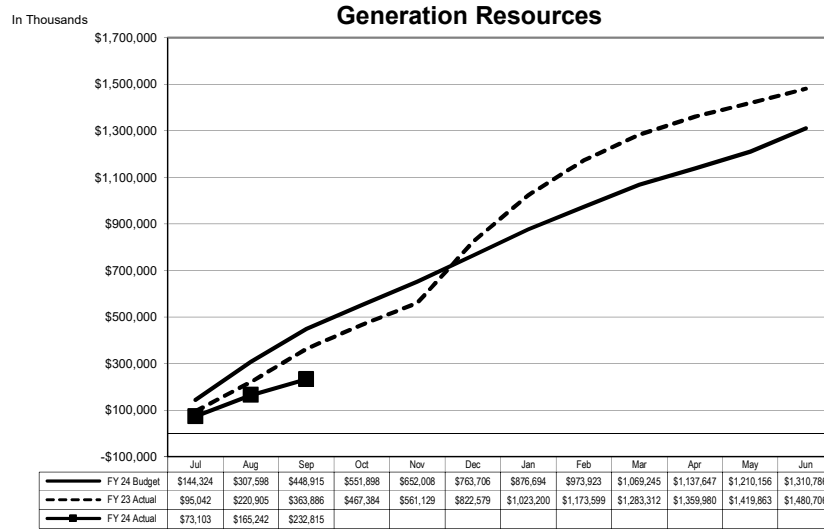
John Tangermann resigned from his position as a Storekeeper III at NCPA's Geothermal Facility on November 3, 2023, after 4.5 years of service.

**Annual Budget  
2023-2024 Fiscal Year To Date  
As of October 31, 2023**

In Thousands	Program			
	Budget	Actual	Under(Ovr) Budget	YTD % Remaining
<b>GENERATION RESOURCES</b>				
<b>NCPA Plants</b>				
Hydroelectric	57,650	19,597	\$ 38,053	66%
Geothermal Plant	50,009	14,544	35,465	71%
Combustion Turbine No. 1	6,932	1,852	5,080	73%
Combustion Turbine No. 2 (STIG)	9,217	3,038	6,179	67%
Lodi Energy Center	136,797	39,436	97,360	71%
	260,605	78,467	182,138	70%
<b>Member Resources - Energy</b>	70,125	27,034	43,091	61%
<b>Member Resources - Energy (Customer)</b>	359	22	336	94%
<b>Member Resources - Natural Gas</b>	2,510	1,776	734	29%
<b>Western Resource</b>	25,839	5,775	20,065	78%
<b>Market Power Purchases</b>	37,309	17,085	20,223	54%
<b>Gross Load Costs</b>	691,439	148,213	543,227	79%
<b>Gross Load Costs (Customer)</b>	220,937	45,965	174,972	79%
<b>Net GHG Obligations</b>	1,363	176	1,187	87%
<b>Net GHG Obligations (Customer)</b>	-	35	(35)	#DIV/0!
<b>Preliminary Surveys and Investigations</b>	300	-	300	100%
	1,310,786	324,548	986,237	75%
<b>TRANSMISSION</b>				
Independent System Operator	195,762	51,292	144,470	74%
Independent System Operator - Customer	-	6,764	(6,764)	
	195,762	58,055	137,707	70%
<b>MANAGEMENT SERVICES</b>				
<b>Legislative &amp; Regulatory</b>				
Legislative Representation	2,250	717	1,533	68%
Regulatory Representation	763	253	510	67%
Western Representation	768	111	657	86%
Customer Programs	649	157	492	76%
	4,429	1,238	3,191	72%
<b>Judicial Action</b>	1,064	151	913	86%
<b>Power Management</b>				
System Control & Load Dispatch	7,900	2,474	5,426	69%
Forecasting & Prescheduling	2,891	934	1,957	68%
Industry Restructuring	392	153	240	61%
Contract Admin, Interconnection Svcs & Ext. Affairs	1,176	366	810	69%
Gas Purchase Program	79	20	59	75%
Market Purchase Project	113	27	86	76%
	12,552	3,974	8,578	68%
<b>Energy Risk Management</b>	144	46	98	68%
<b>Settlements</b>	1,076	196	880	82%
<b>Integrated System Support</b>	772	214	559	72%
<b>Participant Pass Through Costs</b>	1,765	387	1,378	78%
<b>Support Services</b>	-	956	(956)	
	21,802	7,161	14,641	67%
<b>TOTAL ANNUAL BUDGET COST</b>	1,528,350	389,765	1,138,585	74%
<b>LESS: THIRD PARTY REVENUE</b>				
Plant ISO Energy Sales	244,824	58,890	185,934	76%
Member Resource ISO Energy Sales	74,477	23,636	50,841	68%
Member Owned Generation ISO Energy Sales	179,429	55,497	123,931	69%
Revenue from Customers	70,212	15,595	54,617	78%
Customer Owned Generation ISO Energy Sales	154,466	379	154,087	100%
NCPA Contracts ISO Energy Sales	45,275	8,406	36,869	81%
Western Resource ISO Energy Sales	31,463	15,156	16,306	52%
Load Aggregation Energy Sales	-	23,762	(23,762)	
Ancillary Services Sales	9,295	570	8,724	94%
Transmission Sales	110	37	74	67%
Western Credits, Interest & Other Income	44,090	25,312	18,779	43%
	853,641	227,239	626,402	73%
<b>NET ANNUAL BUDGET COST TO PARTICIPANTS</b>	674,709	162,526	\$ 512,183	76%

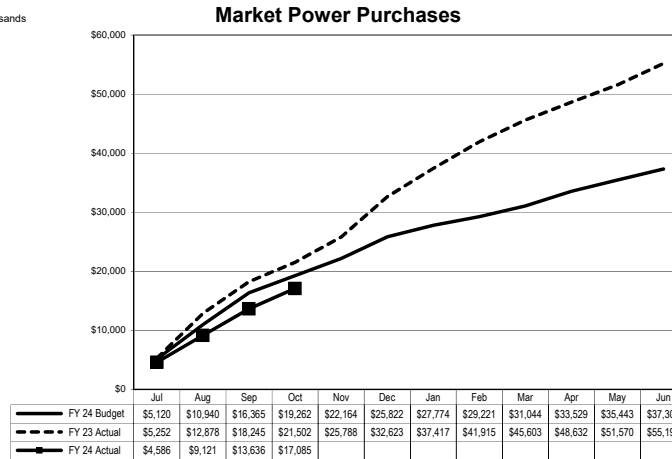
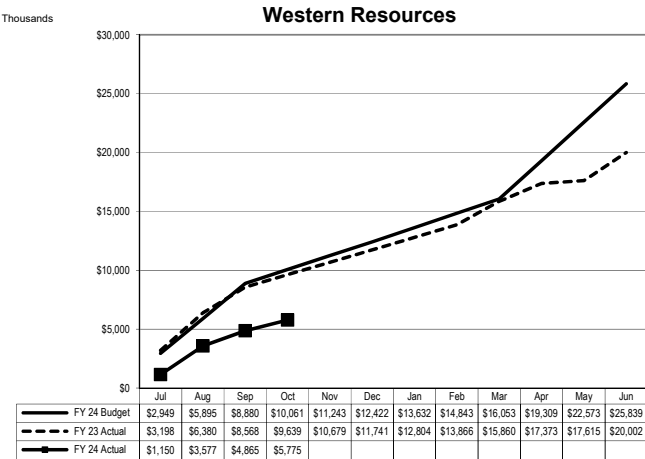
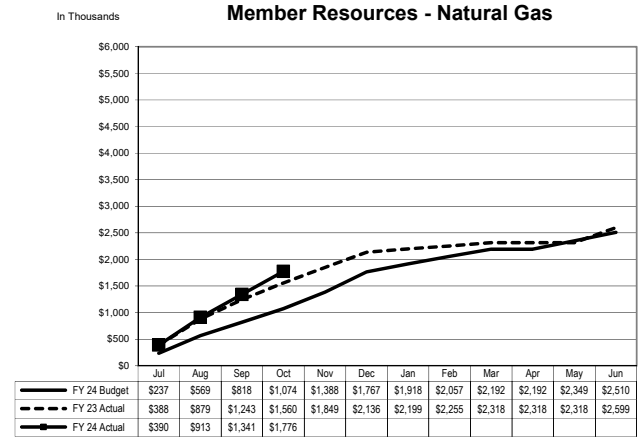
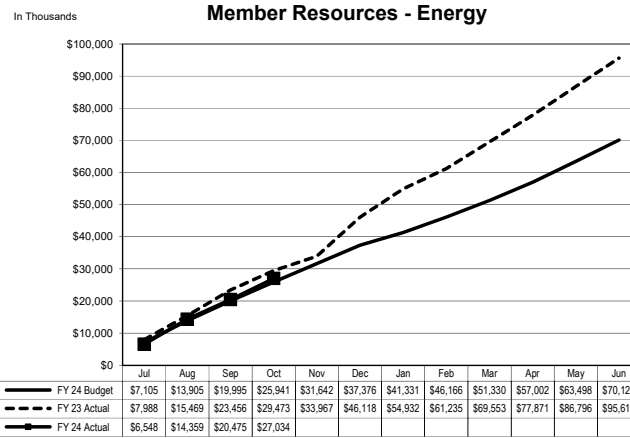
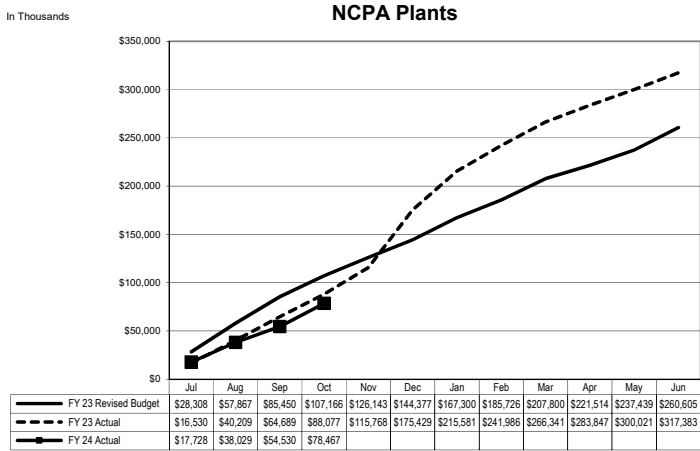


## Annual Budget Budget vs. Actual By Major Area As of October 31, 2023



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

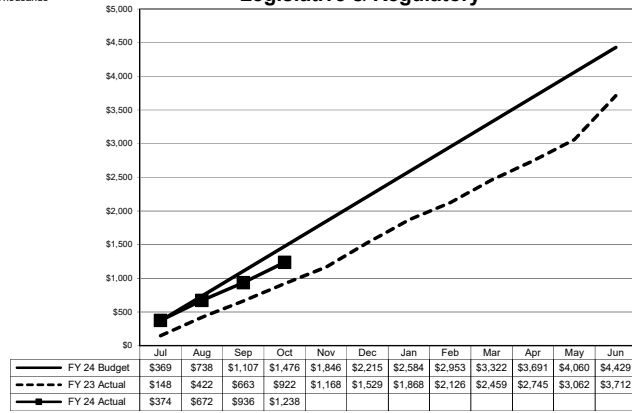
## Annual Budget Cost Generation Resources Analysis By Source As of October 31, 2023



## Annual Budget Cost Management Services Analysis By Source As of October 31, 2023

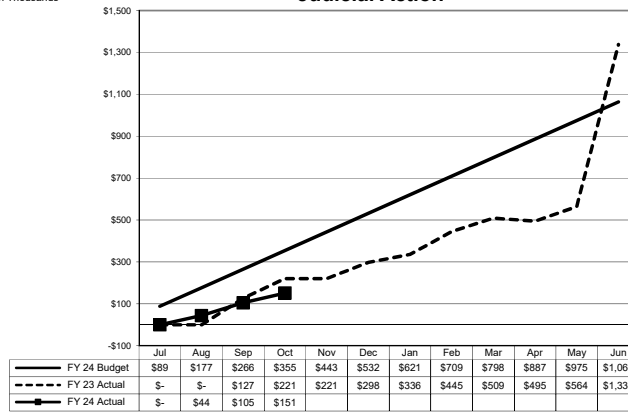
In Thousands

### Legislative & Regulatory



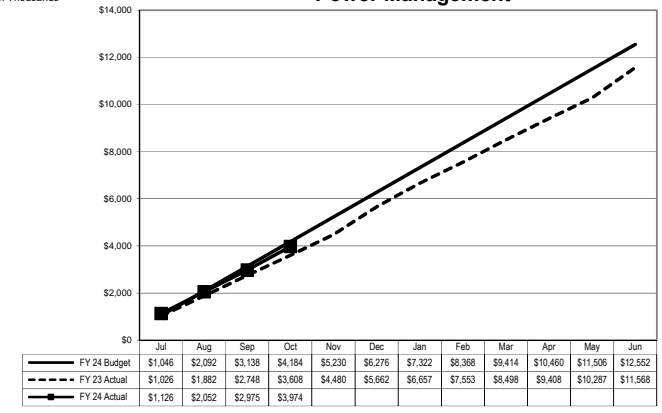
In Thousands

### Judicial Action



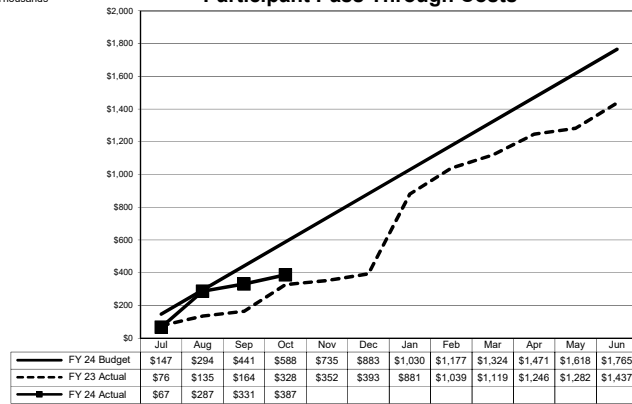
In Thousands

### Power Management



In Thousands

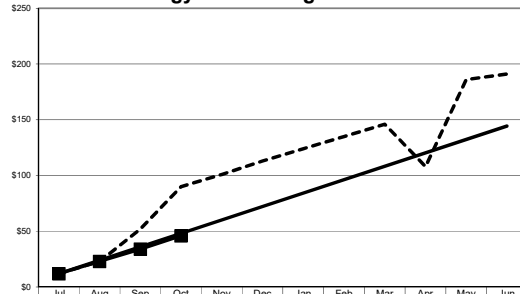
### Participant Pass Through Costs



**Annual Budget Cost  
Management Services Analysis By Source  
As of October 31, 2023**

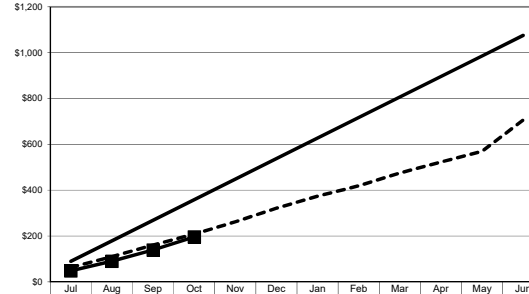
In Thousands

**Energy Risk Management**



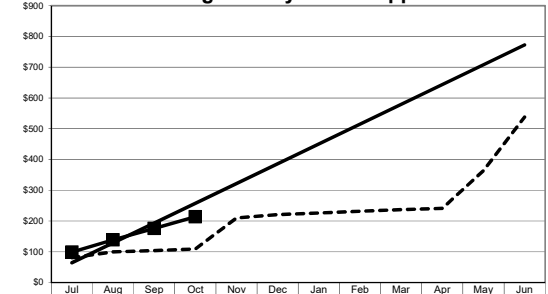
In Thousands

**Settlements**



In Thousands

**Integrated Systems Support**

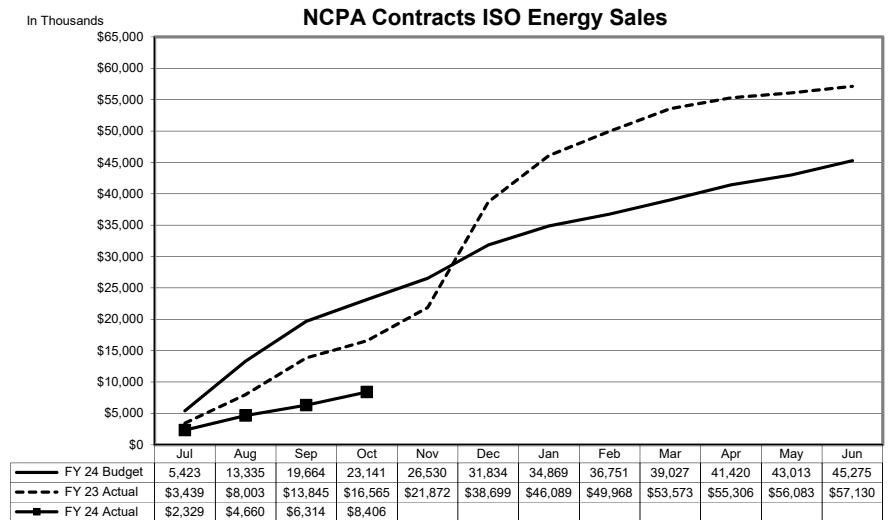
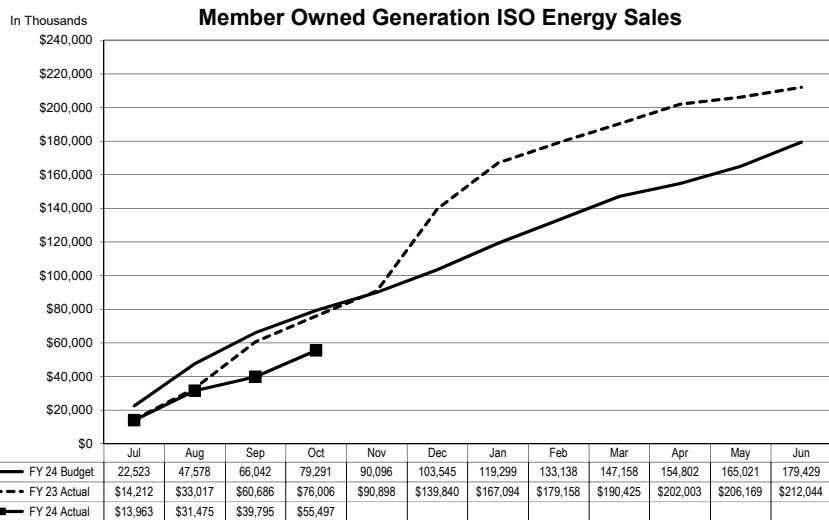
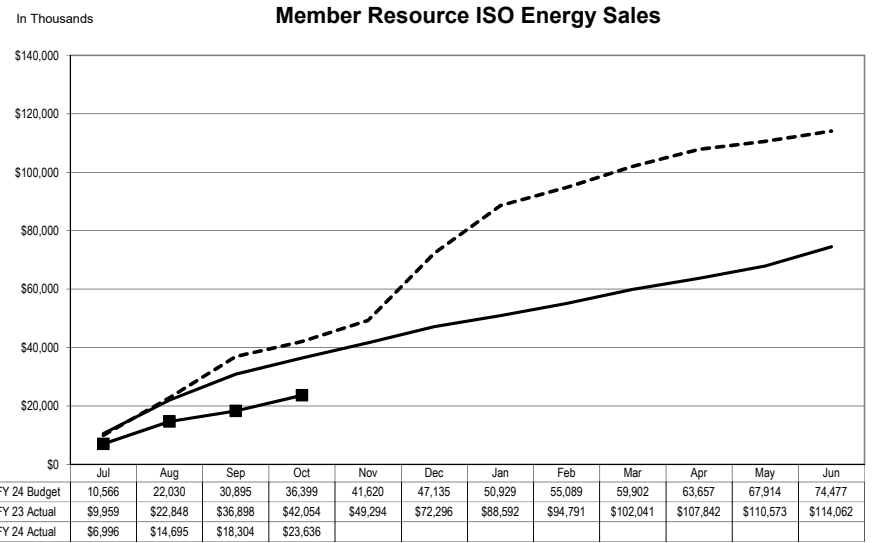
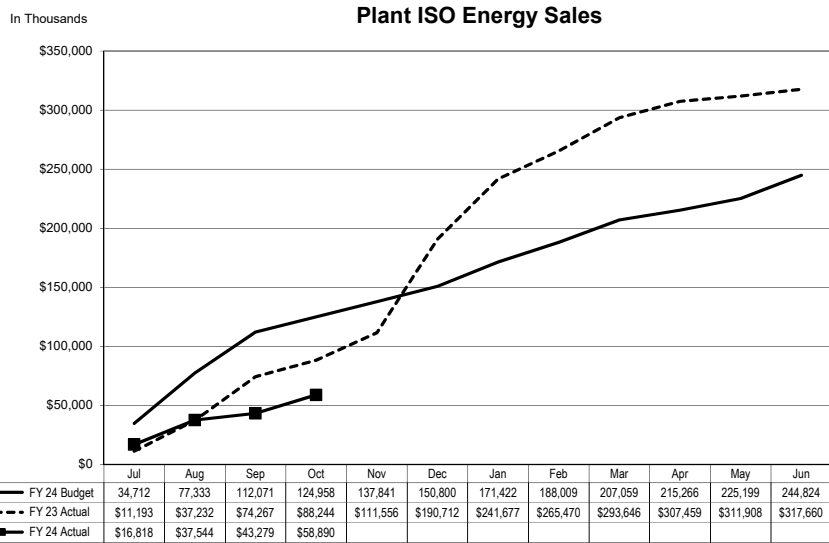


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 24 Budget	\$12	\$24	\$36	\$48	\$60	\$72	\$84	\$96	\$108	\$120	\$132	\$144
FY 23 Actual	\$12	\$23	\$52	\$90	\$101	\$113	\$124	\$135	\$146	\$108	\$186	\$191
FY 24 Actual	\$12	\$23	\$34	\$46								

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 24 Budget	\$90	\$179	\$269	\$359	\$448	\$538	\$627	\$717	\$807	\$896	\$986	\$1,076
FY 23 Actual	\$63	\$110	\$161	\$208	\$262	\$321	\$374	\$419	\$475	\$523	\$570	\$706
FY 24 Actual	\$48	\$90	\$139	\$196								

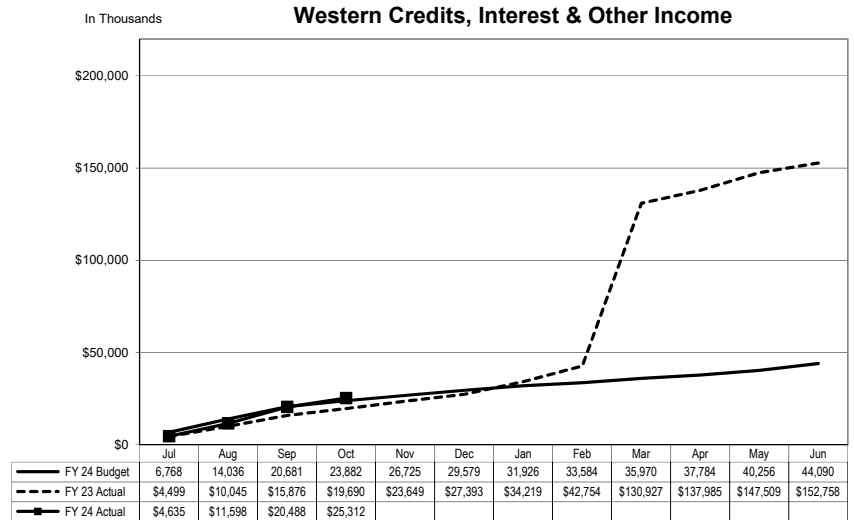
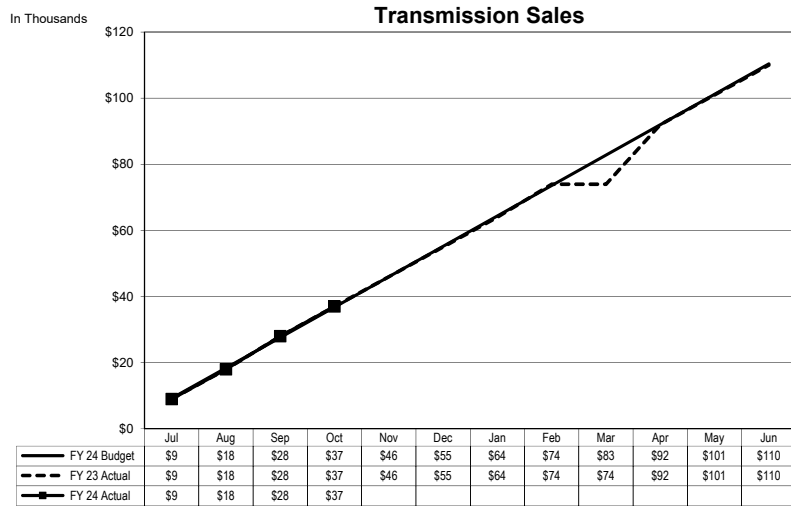
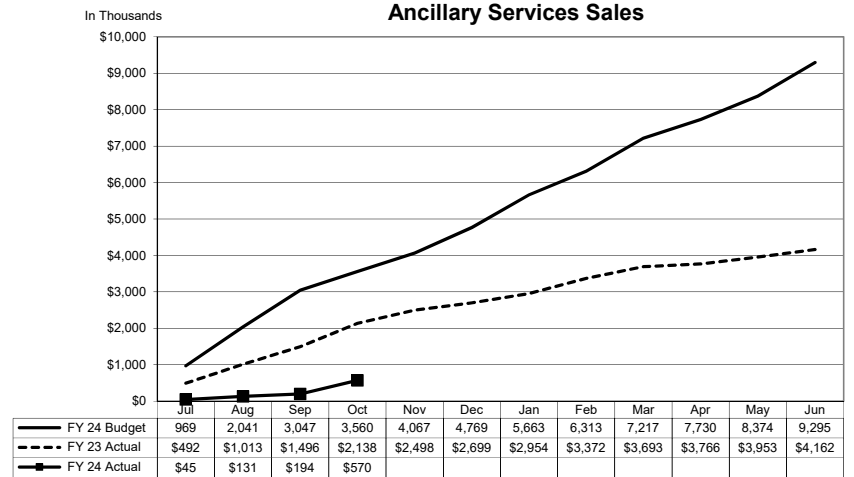
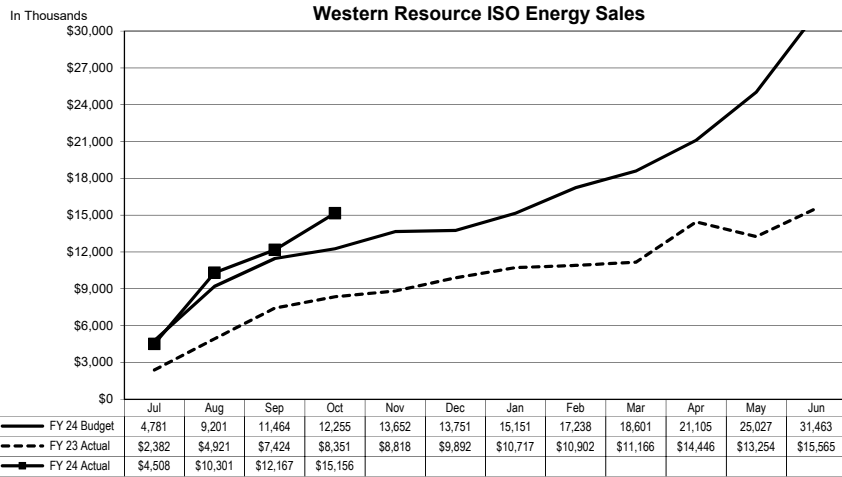
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 24 Budget	\$64	\$129	\$193	\$257	\$322	\$386	\$451	\$515	\$579	\$644	\$708	\$772
FY 23 Actual	\$81	\$100	\$104	\$109	\$210	\$221	\$226	\$232	\$237	\$241	\$364	\$538
FY 24 Actual	\$99	\$139	\$176	\$214								

**Annual Budget Cost  
Third Party Revenue Analysis By Source  
As of October 31, 2023**





**Annual Budget Cost  
Third Party Revenue Analysis By Source  
As of October 31, 2023**



**Annual Budget  
NCPA Generation Detail Analysis By Plant  
As of October 31, 2023**

**Generation Cost Analysis**

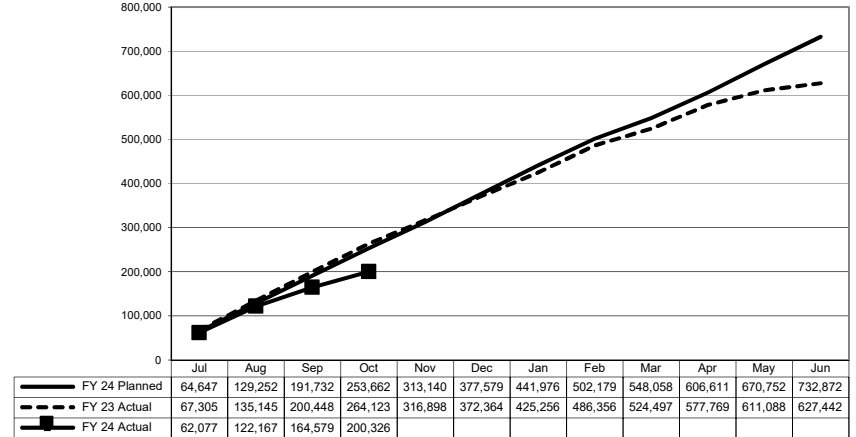
\$ in thousands

	Geothermal				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
	Routine O & M	\$ 18,513	\$ 7,314	\$ 36.51	\$ 11,199
Capital Assets/Spare Parts Inventories	14,032	1,835	9.16	12,197	87%
Other Costs	12,998	3,954	19.74	9,043	70%
CA ISO Charges	984	279	1.39	705	72%
Debt Service	3,482	1,161	5.79	2,321	67%
Annual Budget	50,009	14,544	72.60	35,465	71%
Less: Third Party Revenue					
Interest Income	150	202	1.01	(52)	-34%
ISO Energy Sales	65,632	11,990	59.85	53,642	82%
Ancillary Services Sales	-	-	-	-	0%
Effluent Revenues	750	114	0.57	636	85%
Misc	113	37	0.19	76	67%
	66,646	12,343	61.62	54,302	81%
Net Annual Budget Cost to Participants	\$ (16,637)	\$ 2,200	\$ 10.98	\$ (18,837)	113%
Net Generation--MWh @ Meter	732,872	200,326			
\$/MWh (A)	\$ (27.45)	\$ 5.19			

**MWhs Generated**

In MWh

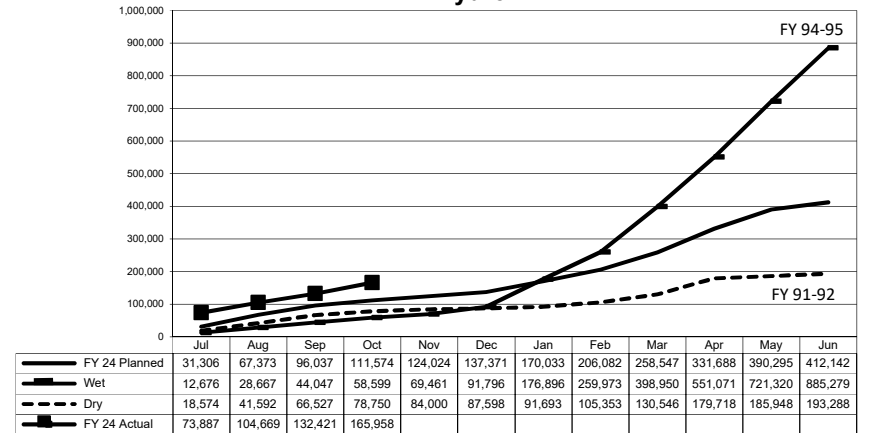
**Geothermal**



	Hydroelectric				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
	Routine O & M	\$ 10,555	\$ 3,114	\$ 18.77	\$ 7,441
Capital Assets/Spare Parts Inventories	6,445	1,871	11.27	4,574	71%
Other Costs	4,706	1,354	8.16	3,352	71%
CA ISO Charges	1,298	1,709	10.30	(411)	-32%
Debt Service	34,646	11,549	69.59	23,097	67%
Annual Budget	57,650	19,597	118.08	38,053	66%
Less: Third Party Revenue					
Interest Income	150	138	0.83	12	8%
ISO Energy Sales	47,892	14,870	89.60	33,023	69%
Ancillary Services Sales	4,579	217	1.31	4,362	95%
Misc	-	26	0.16	(26)	0%
	52,622	15,251	91.90	37,371	71%
Net Annual Budget Cost to Participants	\$ 5,029	\$ 4,346	\$ 26.19	\$ 682	
Net Generation--MWh @ Meter	412,142	165,958			
\$/MWh (A)	\$ (71.86)	\$ (43.40)			

In MWh

**Hydro**



Footnotes:

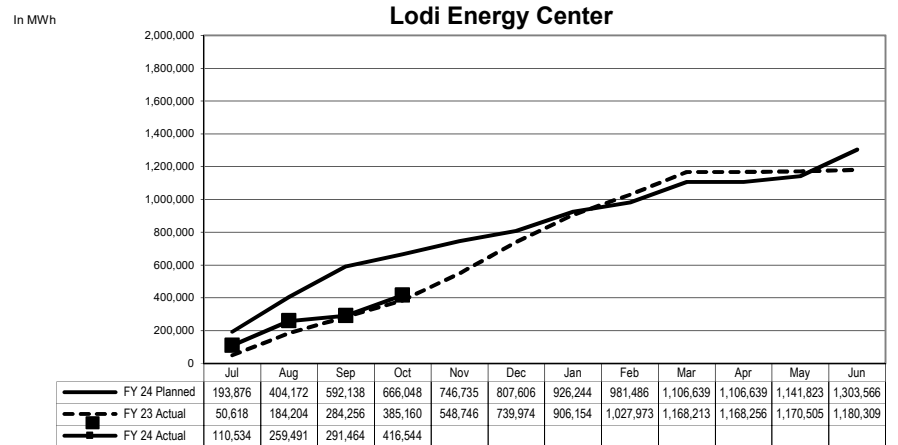
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

**Annual Budget  
NCPA Generation Detail Analysis By Plant  
As of October 31, 2023**

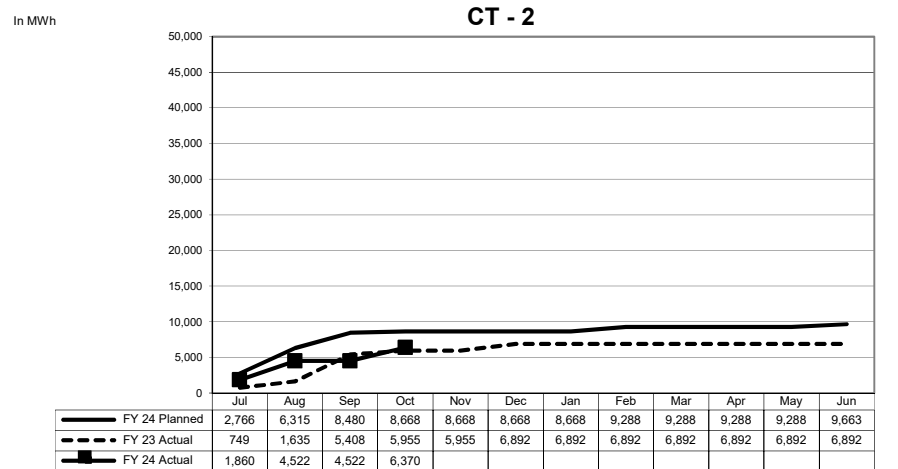
**Generation Cost Analysis**

	Lodi Energy Center				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
	Routine O & M	\$ 10,580	\$ 4,166	\$ 10.00	\$ 6,414
Fuel	71,518	17,279	41.48	54,239	76%
GHG Allowance Costs	13,985	4,071	9.77	9,914	71%
CA ISO Charges and Energy Purchases	1,364	1,547	3.71	(183)	-13%
Capital Assets/Spare Parts Inventories	3,913	865	2.08	3,047	78%
Other Costs	9,445	2,844	6.83	6,601	70%
Debt Service	25,992	8,664	20.80	17,328	67%
Annual Budget	136,797	39,436	94.68	97,360	71%
Less: Third Party Revenue					
Interest Income	250	435	1.04	(185)	-74%
ISO Energy Sales	123,919	29,896	71.77	94,022	76%
Ancillary Services Sales	2,011	298	0.72	1,712	85%
Net Annual Budget Cost to Participants	#REF!	#REF!	#REF!	#REF!	#REF!
Net Generation--MWh @ Meter	1,303,566	416,544			
\$/MWh (A)	#REF!	#REF!			

**MWhs Generated**



	Combustion Turbine No. 2 (STIG)				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
	Routine O & M	\$ 1,674	\$ 570	\$ 89.53	\$ 1,104
Fuel and Pipeline Transport Charges	1,177	509	79.87	668	57%
GHG Allowance Costs	171	-	-	171	100%
Capital Assets/Spare Parts Inventories	390	2	0.35	387	99%
Other Costs	728	215	33.71	514	71%
CA ISO Charges	19	56	8.78	(37)	-192%
Debt Service	5,058	1,686	264.69	3,372	67%
Annual Budget	9,217	3,038	476.92	6,179	67%
Less: Third Party Revenue					
Interest Income	42	70	11.01	(28)	-67%
ISO Energy Sales	2,828	1,051	164.98	1,777	63%
Ancillary Service Sales	-	-	-	-	0%
Fuel and Pipeline Transport Credits	951	944	148.12	7	1%
GHG Allowance Credits	171	-	-	171	100%
Misc	-	0	0.02	(0)	0%
	3,992	2,065	324.14	1,927	48%
Net Annual Budget Cost to Participants	\$ 5,226	\$ 973	\$ 152.78	\$ 4,252	81%
Net Generation--MWh @ Meter	9,663	6,370			
\$/MWh (A)	\$ 17.30	\$ (111.91)			



**Footnotes:**

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

**Annual Budget  
NCPA Generation Detail Analysis By Plant  
As of October 31, 2023**

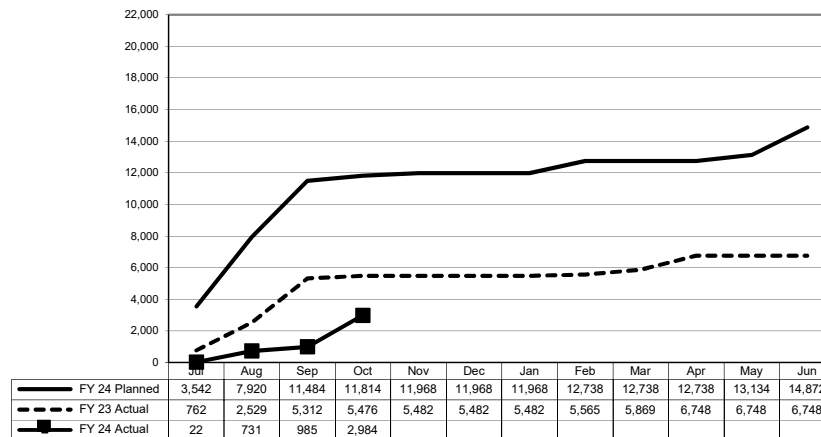
**Generation Cost Analysis**

	Combustion Turbine No. 1				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 2,597	\$ 795	\$ 266.41	\$ 1,802	69%
Fuel and Pipeline Transport Charges	2,388	155	51.89	2,233	94%
Capital Assets/Spare Parts Inventories	1,045	400	134.13	645	62%
Other Costs	852	262	87.86	590	69%
CA ISO Charges	50	240	80.39	(190)	-378%
Debt Service	-	-	-	-	-
Annual Budget	6,932	1,852	620.68	5,080	73%
Less: Third Party Revenue					
Interest Income	55	58		(3)	-6%
ISO Energy Sales	4,552	1,083	362.86	3,470	76%
Ancillary Services Sales	-	-	-	-	0%
Misc	-	-	-	-	0%
	4,607	1,141	362.86	3,466	75%
Net Annual Budget Cost to Participants	\$ 2,325	\$ 711	\$ 238.33	\$ 1,614	69%
Net Generation--MWh @ Meter	14,872	2,984			
\$/MWh (A)	\$ 156.32	\$ 238.33			

**MWhs Generated**

In MWh

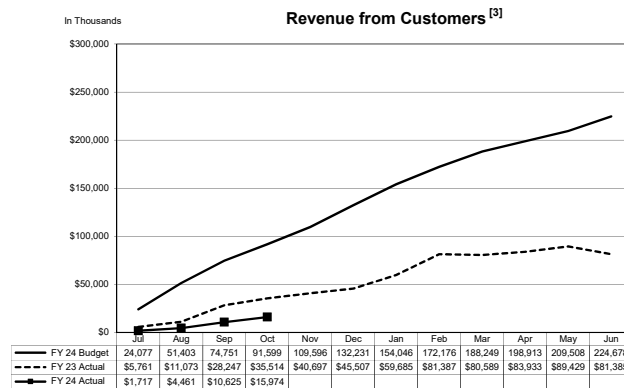
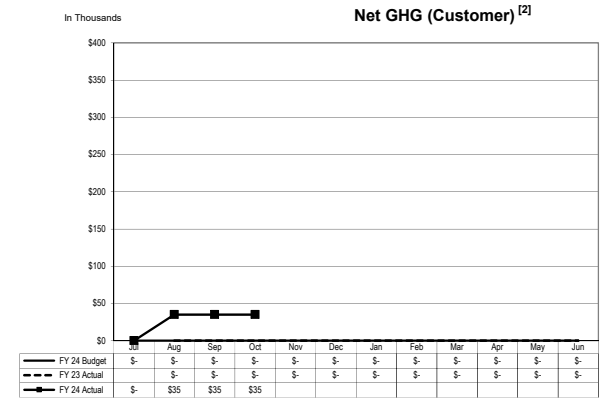
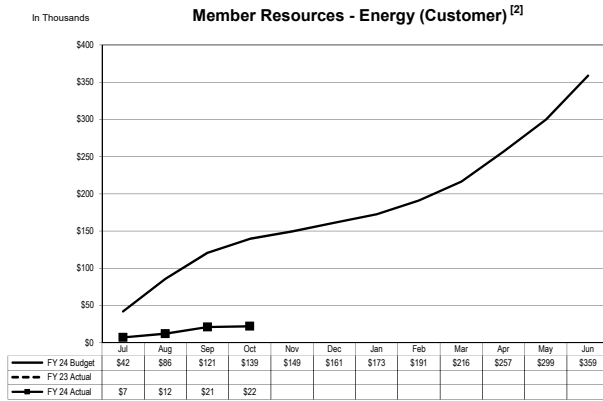
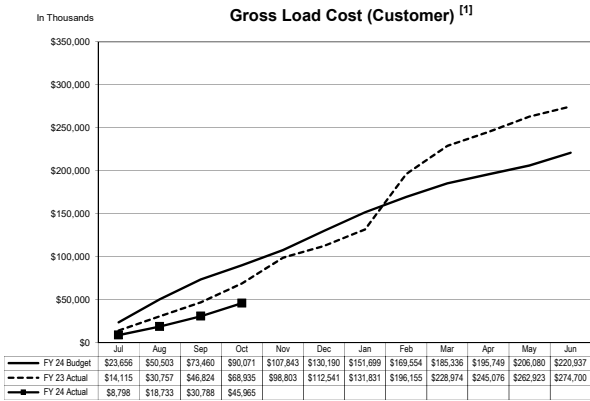
**CT - 1**



Footnotes:

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

**Annual Budget Cost  
NCPA Customers  
As of October 31, 2023**



- Notes:
- 1 Energy purchased by customers
  - 2 Power generators and customer owned resources
  - 3 Pertains to all customers