



651 Commerce Drive
Roseville, California 95678
(916) 781-3636
www.ncpa.com



BUSINESS PROGRESS REPORT

May 2023

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Generation Costs & Reliability

Combustion Turbine Project

Unit Operation for April 2023

Unit	Availability		Production		Reason for Run
CT1 Alameda	Unit 1	Unit 2	Unit 1	465.8 MWh	CAISO / CAISO
	99.9%	99.9%	Unit 2	424.2 MWh	
Curtailments, Outages, and Comments:					
Unit 1: 4/08 @ 23:57 - 4/09 @ 00:37; Loss of comms, OMS 13381828					
Unit 2: 4/08 @ 23:57 - 4/09 @ 00:37; Loss of comms, OMS 13381828					
Unit	Availability		Production		Reason for Run
CT1 Lodi	65.38%		0.0 MWh		CAISO
Curtailments, Outages, and Comments:					
4/20 @ 14:43; Ground fault on station service underground cable, OMS 13441657. ETA 5/15.					
Unit	Availability		Production		Reason for Run
CT2 STIG	0.0%		0.0 MWh		CAISO
Curtailments, Outages, and Comments:					
4/01 @ 00:00 - 4/30 @ 23:59; Annual maintenance, OMS 12421602					
Unit	Availability		Production		Reason for Run
LEC	0.0%		41 MWh		CAISO
Curtailments, Outages, and Comments:					
4/01 @ 00:00 - 4/30 @ 23:59; Annual maintenance, OMS 12421611					

Maintenance Summary – Specific per asset above.

Geothermal Facilities

Availability/Production for April 2023

Unit	Availability		Net Electricity Generated/Water Delivered		Out-of-Service/Descriptors
Unit 1	0	%	0	MWh	U1 down for outage
Unit 2	100	%	22,480.00	MWh	U2 in service
Unit 3	N/A	%	N/A	-	Unit 3 remains out of service.
Unit 4	100	%	30,797aa	MWh	U 4 in service
Southeast Geysers Effluent Pipeline	100	%	234.5	mgallons	Average flow rate: 5,427 gpm
Southeast Solar Plant	N/A		125,559	KWh	Year-to-date KWh: 1,693,481
Bear Canyon Pump Station Zero Solar	N/A		108,329	KWh	Year-to-date KWh: 1,259,724

* Accounts for an additional 2,273 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

Hydroelectric Project

Availability/Production for April 2023

Units	Availability	Net Electricity Generated	Out-of-Service
Collierville Unit 1	99.22%	76084 MWh	CV Unit 1 – Out of Service on 4/3/23 from 1056 to 1630 for TWD System Trouble.
Collierville Unit 2	100%	75489 MWh	CV Unit 2 – No Outages
Spicer Unit 1	88.49%	919 MWh	NSM1- Out of Service on 4/11/23 to 4/13/23 from 0727 to 1741 for PGE work at Tiger Creek and on 4/13/23 to 4/14/23 from 1741 to 2359 for Unit Failed to Remote Start and on 4/18/23 from 1417 to 1637 for Testing
Spicer Unit 2	88.85%	900 MWh	NSM2- Out of Service on 4/11/23 to 4/13/23 from 0727 to 1741 for PGE work at Tiger Creek and on 4/13/23 to 4/14/23 from 1741 to 1547 for Unit Failed to Remote Start
Spicer Unit 3	88.79%	166 MWh	NSM3- Out of Service on 4/11/23 to 4/14/23 from 0736 to 1617 for PGE work at Tiger Creek

Operations & Maintenance Activities:

- CMMS work orders
- Winter Access Issues

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

- There were no vehicle, Lost Time, or Cal OSHA Recordable accidents in the month of April.
- 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 April 22, 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.

April 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	1	0	0
Days since Recordable	893	82	2,938	3,922
Work Hours Since Last Recordable	78,294	17,694	443,606	2,940,426
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	0	0	0
Days without LTA	5,672	2,801	10,842	6,935
Work Hours without LTA	510,863	280,668	855,150	2,562,444
Vehicle Incident (month)	0	0	0	0
Vehicle Incident (calendar year)	0	1	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 April 22, 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

	April 2023		Calendar Year 2023	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	323 4/27 @ 1800	170,705	331.16 2/27 @ 1200	735,324
SVP	602.26 4/27 @ 1700	367,214	602.26 4/27 @ 1700	1,486,063
MSSA	922.39 4/27 @ 1800	537,919	922.39 4/27 @ 1800	2,221,387

Last Year 2022 Data*

	April 2022		Calendar Year 2022	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	327.03 4/7 @ 1800	170,663	511.56 9/6 @ 1600	711,432
SVP	585.86 4/7 @ 1800	359,569	687.74 9/6 @ 1300	1,428,862
MSSA	912.89 4/7 @ 1800	530,232	1176.2 9/6 @ 1400	2,140,294

*Last year's data added for comparison purposes only

System Peak Data

	All Time Peak Demand	2023 Peak Demand
NCPA Pool	517.83 MW on 7/24/06 @ 1500	331.16 2/27 @ 1200
SVP	687.74 MW on 9/6/22 @ 1300	602.26 4/27 @ 1700
MSSA	1176.20 MW on 9/6/22 @ 1400	922.39 4/27 @ 1800

- NCPA MSSA has a Deviation Band with the CAISO, which is used as a performance measure by the CAISO. The ability to stay within this Deviation Band is a measure of NCPA Dispatch's ability to balance the MSSA Loads and Resources on a 5-minute basis. The following NCPA Deviation Band Performance table includes all deviations, including deviations from unit forced outages, metering and load outages, COTP, Western, and WECC curtailments.

NCPA Deviation Band Performance		
	April 2023	Calendar Year 2023
MSSA % Within the Band	98.8%	98.79%

CAISO Grid Test Notice 2023-04-03 08:14:00

- This is the monthly test of the California ISO Alert, Warning & Emergency (AWE) Notification System.
- This is only a test - NO ACTION REQUIRED.

Pooling, Portfolio Planning & Forecasting

- NCPA Pool loads during April 2023 were 170,706 MWh versus the budget forecast of 178,444 MWh, resulting in a forecast error of 4.53%. The current weather outlook for May 2023 is for above normal temperatures and above normal rainfall. The Pool's May load forecast is 188,355 MWh compared with extrapolated actuals of 189,284 MWh as of May 16, 2023.
- Lodi Energy Center (LEC) ran 1 test hour during its annual outage.
- During April 2023, 0.39" of rain was recorded at the Big Trees gauge. April average rainfall at Big Trees is 3.98". New Spicer Meadows storage increased by just over 17,100 acre feet in April.
- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) has been maintained at \$90/MWh. Releases from NSMR have been increased to make room for the substantially above average snowpack. The Central Sierra snowpack peaked ~237% of April 1st average.
- New Spicer Meadows storage as of April 30, 2023 was 68,895 acre feet. The historical average storage at the end of April is 101,343 acre feet. As of May 16th, storage was 92,390 acre feet.
- Combined Calaveras Project generation for the Pool in April 2023 totaled 77,913MWh, up from 69,637MWh in March 2023.
- Western Base Resource (BR) deliveries for the Pool during April 2023 were 34,291 MWh. Displacement program energy totaled 6,148 MWh. The Pool's share of expected total delivery from the Western Base Resource for May 2023 is 81,500 MWh, with 50,062 MWh having been delivered through May 16, 2023.
- The PG&E Citygate gas index averaged \$5.57 / MMBtu during the month of April as compared to an average of \$7.88 for March. May 2023 average price is \$4.28 through the 16th. The June 2023 PG&E Citygate forward price is \$4.29 / MMBtu.
- Day-Ahead PG&E DLAP electricity prices for April averaged \$63.56 / MWh On-Peak and \$59.81 Off-Peak, with a high of \$195.64 and a low of -\$5.95. DLAP prices have averaged \$22.91 On-Peak and \$20.23 Off-Peak for the period May 1st through the 16th, with a low price of -\$19.51. The forward power prices for June are \$53.29 On-Peak and \$42.77 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 July 2023:
 - Monthly System Resource Adequacy Demonstration (filed May 17, 2023)
 - Monthly Supply Plan (filed May 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:

Extended Day-Ahead Market ISO Balancing Authority Area Participation Rules

Through this initiative, the ISO will address ISO Balancing Authority Area (BAA)-specific elements required for Extended Day-Ahead Market (EDAM) participation, including how to allocate ISO BAA EDAM resource sufficiency evaluation (RSE) failure surcharges and revenues, and options for curing ISO BAA EDAM advisory RSE shortfalls.

- Track A1 – July 2023 Board Decision
 - Criteria to set the ISO BAA’s net EDAM export transfer constraint and introduction of “Reliability Margin” and “Confidence Factor” inputs.
 - Transfer resource settlement and transfer revenue distribution.
 - Process for recovering historical wheeling access charge revenues
 - Process to allocate RSE failure surcharges and revenues
- Track A2 – Finish policy in 2023. Board approval not required
 - Avoiding RSE failures by utilizing existing ISO tariff authority.
- Track B
 - Avoiding RSE failures by utilizing new ISO tariff authority.
 - Long term solution to allocate RSE failure surcharges and revenues.

NCPA Comment summary:

NCPA supports the proposed scope however feels the timeline may be too aggressive. NCPA will request moving Track A1 to a board meeting taking place later in Q4 2023 in order to give stakeholders more time to work through details in transfer resource settlement and transfer revenue distribution and a process for recovering historical wheeling access charge revenues.

NCPA advises against excessive hold-backs or biasing in the Reliability Margin input of ISO BAA’s net EDAM export transfer constraint. NCPA agrees that EDAM export transfer constraint inputs, reasons for the inputs, and the resulting outputs require transparency.

NCPA believes CAISO should not issue calls for additional offers or procure additional capacity due to advisory RSE failures. CAISO states that it generally does not have complete information available until the market closes, and it seems highly probable that there would be instances where CAISO procured additional capacity unnecessarily. It would be undesirable for these shortfall notices to disrupt the market. NCPA does not support adjusting market timelines to facilitate this. NCPA does not support CAISO acting as a centralized procurement entity for RSE products.

Western

Western Base Resource Tracking - NCPA Pool							
	Actual			Costs & Rates			
	BR Forecast ¹ (MWh)	BR Delivered (MWh)	Difference (MWh)	Base Resource & Restoration Fund (\$)	Monthly Cost of BR ² (\$/MWh)	CAISO LMP Differential ³ (\$/MWh)	12-Mo Rolling Avg. Cost of BR ⁴ (\$/MWh)
Jul-22	51,082	26,633	(24,449)	\$1,733,503	\$ 65.09	\$ (0.41)	\$ 68.38
Aug-22	33,542	18,632	(14,910)	\$1,733,503	\$ 93.04	\$ 2.72	\$ 80.68
Sep-22	20,613	7,893	(12,720)	\$1,605,598	\$ 203.42	\$ (0.55)	\$ 92.15
Oct-22	8,931	10,637	1,706	\$609,688	\$ 57.32	\$ 0.67	\$ 100.68
Nov-22	-	4,164	4,164	\$609,688	\$ 146.42	\$ 0.04	\$ 102.78
Dec-22	-	3,591	3,591	\$609,688	\$ 169.78	\$ 0.28	\$ 99.99
Jan-23	12,388	4,782	(7,606)	\$609,688	\$ 127.50	\$ (0.03)	\$ 96.36
Feb-23	18,712	1,578	(17,134)	\$609,688	\$ 386.37	\$ 0.13	\$ 98.51
Mar-23	12,955	2,721	(10,234)	\$609,688	\$ 224.07	\$ 0.26	\$ 103.34
Apr-23	41,280	40,439	(841)	\$1,349,908	\$ 33.38	\$ 1.05	\$ 84.31
May-23	74,195	-	0	\$1,349,908	\$ 18.19	\$ -	\$ 61.97
Jun-23	78,807	-	0	\$1,349,908	\$ 17.13	\$ -	\$ 47.51

1/ As forecasted in NCPA 22/23 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 40,439 MWh of Base Resource (BR) energy in April 2023. This includes displaced energy of 6,148 MWh. Estimated MEEA savings is \$36,163 and estimated displacement savings is \$28,400.

WAPA Integrated Resource Plan (IRP)

Pursuant to the Base Resource Contract, NCPA (on behalf of the Pool Members) are required to file an IRP of a 5-Year Prospective Plan every five years and to file an annual progress update every year.

This year, Base Resource Customers are required to file the 5-Year Plan (2024-2028) and annual progress update for 2023. The reports are due on July 1, 2023. NCPA and consultant Guy Nelson is coordinating with the Pool Members to complete this report.

Displacement Agreement Update

The existing Displacement Agreement has an end date of December 31, 2024. WAPA will send out Amendment 1 of the Displacement Agreement to extend the Displacement Contract Term for 2 years, through December 31, 2026, for customer's execution. The CVP Corp contract will also need to be amended to extend for an additional 2 years.

CVP Rate Case (Rate Order No. WAPA-207) Update

WAPA intends to file a 5-Year Power Formula Rate under Rate Order No. WAPA-207 for Central Valley Project (CVP) Power, Transmission, and Ancillary Services; and the California-Oregon Transmission Project (COTP) Transmission. This is for rate schedules that are set to expire on September 30, 2024 and December 31, 2024. A separate rate case will be conducted for the Pacific Alternating Current Intertie (PACI) rate schedule as the Transmission Exchange Agreement (TEA) is set to expire on December 31, 2024.

WAPA has held four informal meetings. Next Steps: Federal Register Notice will be published in June 2023. Formal Customer Public Information and Comment Forum in July 2023. NCPA will coordinate with the members to formulate comments.

- Key points: No changes to the existing formula rate. No material changes to the redlined rate schedules. WAPA is proposing one rate period for COTP, current rate schedule has four rates, one for each season.
- WAPA will conduct a separate rate case for PACI. This rate case will kick-off late 2023-early 2024.

Interconnection Affairs

CAISO Initiative - Subscriber Participating Transmission Owner Model – NCPA Comments Summary

- Supported the SPTO model for the subscribers to pay for the transmission, energy, losses, and congestion up to the point where the SPTO line connects to the CAISO grid
 - Endorsed the concept of not increasing TAC
- Opposed out of state Interconnection Customers being reimbursed for network upgrades on the CAISO system
- Supported out of state projects being part of the cluster interconnection process
- Opposed CAISO approving projects which expand the grid for out of state wind in the TPP process

CAISO Initiative – 2023 Interconnection Process Enhancements – NCPA Comments Summary

- Opposed delaying the cluster process by one year

- Noted non-CPUC jurisdictional LSE’s should have portfolio needs considered in the TPP
- Opposed considering specific generation such as offshore wind only

Meter Maintenance Program Development

Background

- In the past, NCPA administered a Meter Maintenance Program on behalf of select members
- The program is now expired
- CAISO Certified Meters must be certified and repaired in short order
- NCPA staff has been experiencing growing number of challenges without Meter Maintenance Program
- Staff received bids from two (2) vendors
 - Trimark Associates, Inc. – Final Bid - \$247K Annually
 - Ulteig Engineers, Inc. – Final Bid - \$148K Annually
- Scope Capability

	Trimark	Ulteig
Provide Routine Preventative Meter Maintenance	Yes	Yes
Provide Unplanned Emergency Repair/Replacement (both metering and telecomm equipment)	Included	T&M
Oversee ISP Repairs	Included	T&M
Able to Travel and Service 49 Total Meters throughout Northern CA	Yes	Yes

- September 2022 Facilities Meeting
 - Staff recommended and Committee directed developing a General Services Agreement with Ulteig Engineers, Inc.
- April 2023 Facilities Meeting
 - Committee directed moving Pooling Schedule 14 (payment by Members for Meter Maintenance) of the Second Amended and Restated Pooling Agreement to Commission

Next Steps

- Present both the Ulteig Engineers, Inc. GSA and Pooling Schedule 14 for approval at the April Commission meeting

NERC Standard TOP-003-5 Data Required by CAISO Generator Owners

- California ISO has issued a data request to incorporate cold weather data required by NERC Standard TOP-003-5.

- Generator Owners or their designees shall provide requested data via a CIDI ticket or by submitting the raw data in the CAISO website under Contact Us by July 1, 2023.
- Data request can be provided by using the Extreme Weather Template posted on the CAISO website under Market & Operations > Network and Resource and Modeling > Resource Data Submission section
- Generating unit(s) minimum:
 - 1. Design temperature; or
 - 2. Historical operating temperature; or
 - 3. Current cold weather performance temperature determined by an engineering analysis.
- Temperatures will be communicated in degrees Fahrenheit (F).
- NCPA can submit on Members behalf
 - NCPA Generator cold weather data was accepted by the CAISO on April 12, 2023

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 have settled two of the three outstanding issues

Next Steps

- Mid October – JI and PG&E make a joint filing describing the settlement of two of the three remaining issues and ask FERC to issue an order. This hopefully should allow ISO to issue refunds.

Debt and Financial Management

- On May 3rd, the Federal Reserve approved its 10th interest rate increase in just over a year and finally dropped a hint that the current tightening cycle is likely at an end. The widely expected decision, which takes the fed funds rate to a target range of 5% - 5.25%, was unanimous. The target rate is the highest since August 2007.

- The consumer price index rose 4.9% in April 2023 which was the smallest increase in two years. This is the 10th consecutive month that inflation was weakened from its peak in June 2022 as costs for household staples appear to be in retreat.
- At the May Finance Committee meeting, staff received recommendations for Commission approval regarding updates and revisions both the Investment Policy and Debt & Interest Rate Management Policy.
- The Investment Policy is now ready to submit to the California Municipal Treasurer's Association (CMTA) Investment Policy Certification Program. The benefits of having the policy certified will reflect the trust, confidence, and verification to NCPA's Commission that the policy has been reviewed by a professional organization and fellow CMTA members validating that it's meeting industry best practices for California's public sector agencies.
- With the potential of new projects (Geo BESS, LEC Hydrogen, STIG repower, etc.) on the horizon, the revised Debt Policy is now updated providing the Agency with clearer guidelines for the implementation and management of the issuance of bonds to finance necessary land acquisitions, construction, equipment, and/or other capital requirements.

Schedule Coordination Goals

Software Development

- Applications and Enhancements under development
 - Development of the Renewable Portfolio Standards application continues and data validation continues. Rollout delayed pending completion of other higher priority projects
 - North Spicer Meadows water release schedule automation currently being tested, anticipated rollout by end of May 2023
 - Development of a prototype for a Logging application for Dispatch and Scheduling is underway. Pause in development, a project team will be formed to develop a project plan and evaluate viable options.
 - Low Carbon Fuel Standards (LCFS) implemented into the core Bid-to-Bill applications
 - Systems configuration for EBCE's RA Import beginning July 2023
- Integrations
 - Anticipating various new resource integrations for EBCE, the Pool, and SJCE for end of Q2 COD
- IS currently working in collaboration with Accounting and the consultants to streamline the agency's Budgeting Process and Accounting Reports. Project team consisting of Accounting, IS and consultants are working on a project plan.

Network

- SCADA and Networking team is currently working with EBCE and consultants to configure and integrate Daggett Solar and Battery resource into the power portfolio. Go live is expected in Spring of 2023.
- IS continues the work toward preparing the HQ and DRC Control Centers to be compliant with the NERC CIP Medium standards. Working with AESI to review draft CIP-007, CIP-009 and CIP-010 procedures.
- IS has advertised for a SCADA Analyst position to backfill the vacancy. Anticipate interviews and candidate selection to be completed by May.
- Operations and Support has successfully finalized the migration to the new VOIP system after cutting over the Hydro plant sites this May.
- IS has purchased new Firewalls to replace hardware that will soon be off support. Firewalls are scheduled to be put in place at HQ/DRC and the plants over the next few months.

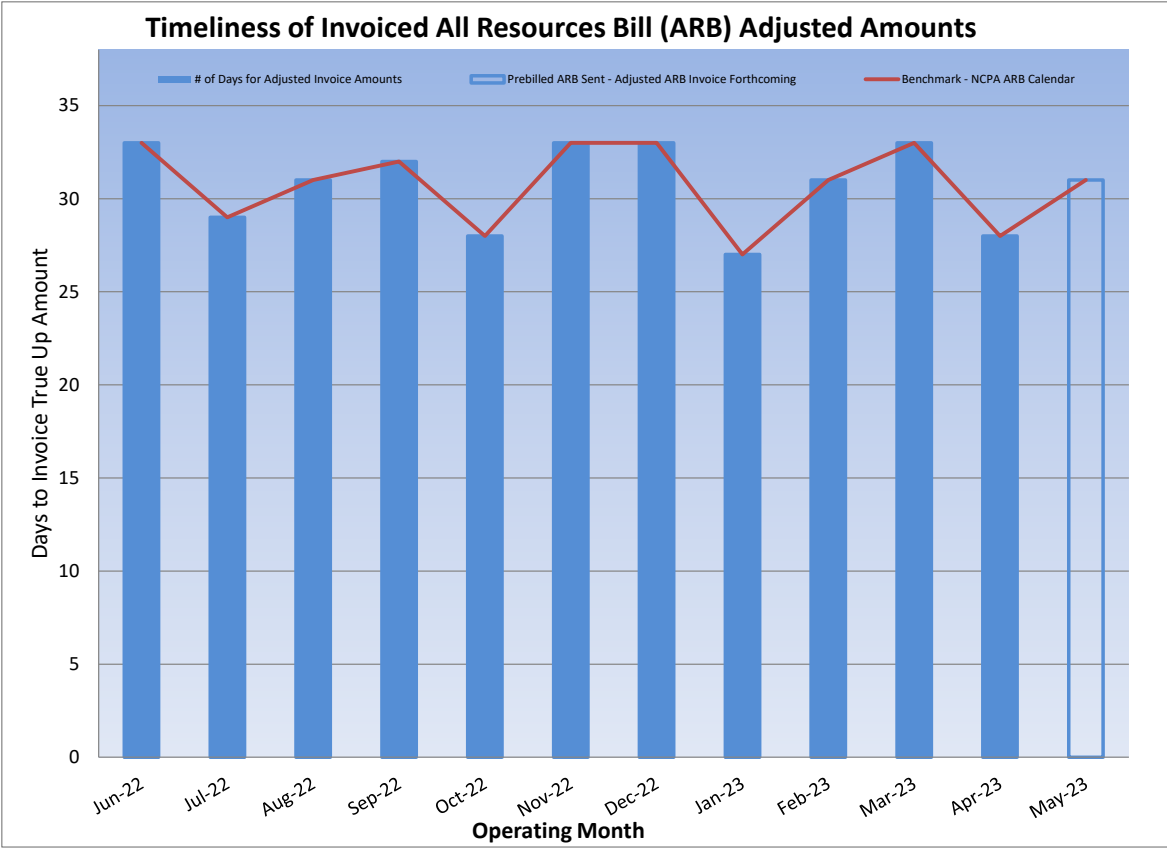
NCPA Bills & Settlements

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 May 2023 NCPA All Resources Bill (ARB) monthly invoice sent to members on April 25, 2023 contains:

- May 2023 monthly pre-billed budget/forecast amounts;
- March 2023 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;
- February 2023 (2nd Adjustment) NCPA Project settlement true-up and T+20 business day recalculated CAISO settlement true-up allocations;
- December 2022 (3rd Adjustment) T+70 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;
- April 2022 (4th Adjustment) T+11-month recalculated CAISO settlement true-up allocations;
- March 2021 (6th Adjustment) T+24-month recalculated CAISO settlement true-up;
- May 2020 (6th Adjustment) T+33-month recalculated CAISO settlement true-up;
- February 2020 (7th Adjustment) T+36-month CAISO settlement true-up;



Legislative & Regulatory

Customer Programs Update:

- The California Air Resources Board (CARB) adopted the Advanced Clean Fleets regulation on April 28, 2023, with a commitment from CARB staff to work with fleets on implementation and regularly update the Board. The regulation will go into effect on January 1, 2024, starting with a 50% purchase requirement for public agency fleets within high-population counties. Starting on January 1, 2027, 100% of public agency fleet purchases will be required to be ZEV. There are a number of exemptions to address unavailability of vehicles, duty cycle, infrastructure delays, and mutual aid needs - but they are limited in scope and are unlikely to address every issue faced by utility fleets. The NCPA Fleets Task Force will shift its focus to understanding the new ACF requirements, discussion of potential pathways for compliance, and will elevate regulatory questions and issues as they arise.

NCPA and a coalition of utility representatives strongly advocated against the regulation citing reliability and safety concerns. While improvements were made as a result of the advocacy effort, there are still several provisions of concern in the final regulation. The coalition is now focused on addressing these matters in the State Legislature.

Legislative Update:

- Members of the Northern California Power Agency (NCPA) and the Northwest Public Power Association (NWPPA) in Washington, DC on April 30th, 2023 for our joint 19th Annual Federal Policy Conference. The conference portion of the event featured congressional and agency representatives as well as other thought leaders focusing

on climate policy, the congressional energy agenda, implementation of key tax provisions from the Inflation Reduction Act, and opportunities to address energy priorities in the Farm Bill. Over the following three days, NCPA and NWPPA members participated in over 32 meetings with representatives from federal regulatory and other agencies and congressional offices to advocate for policies that support public power's key federal policy priorities, which include hydrogen integration at the Lodi Energy Center, addressing supply chain challenges facing the electricity industry, and direct pay for public power systems, among others. Working together with our partners in the Pacific Northwest, we collectively shared our policy objectives with Members of Congress covering nine states, including several who sit on key committees of jurisdiction over energy, tax, and natural resource issues.

Human Resources

Hires:

- Benjamin Guy joined NCPA's Hydroelectric Facility as Hydro Compliance Engineer, effective April 17, 2023. Ben joined us most recently from COWI and Mott MacDonald as a project manager. In this role, he provided a range of services that supported the planning, design, and construction of various projects. Ben brings 10 years of engineering experience and holds a Bachelor of Science in Environmental Engineering from the University of California, Merced.
- Richard Ennis joined NCPA's Hydroelectric Facility as Hydro Tech, effective April 24, 2023. Rich joined us from the Tri-Dam Project, where he was the lead maintenance worker. In this role, he was responsible for scheduling, assigning, and supervising the work of staff in the skilled maintenance and repair of hydroelectric power plants, dams, canals, roads, micro-wave/radio sites, and related facilities. Rich brings 17 years of experience in power generation operations and maintenance.
- Julie Kenkel joined NCPA's Lodi Energy Center as a Facility Office Administrator, effective May 8, 2023. Julie joins us from BAC Community Bank, where she was a Compliance Specialist. In this role, she was a Certified Community Banking Compliance Officer and reviewed and monitored all departments for compliance with laws and regulations, created action plans, and administered the training program. Julie holds an Associate's degree in Accounting from San Joaquin Delta College and brings over 25 years of administrative experience.
- Ryan Dunisch joined NCPA's Lodi Energy Center as a CT Specialist III (Operator), effective May 15, 2023. Ryan joins us from the Campbell Soup Cogeneration Plant, where he was a Lead Operations and Maintenance Technician. In this role, he operated the power plant, performed maintenance, and served as a safety committee Chairperson, and PI Process book System Administrator. Ryan holds a Bachelor of Science degree in Mechanical Engineering from California State University, Sacramento, and previously served in the United States Navy.
- Jack "Ryan" Yarrish joined NCPA's Lodi Energy Center as a CT Specialist III (Operator), effective May 15, 2023. Ryan joins us from Calpine's Delta Energy Center, where he was a Power Plant Operator. In this role, he operated and maintained systems associated with a 3x1 combined cycle power plant. Jack previously served in the United States Marine Corps, holds a Grade 2 Waste Water

Operator license with the State of California, and brings 11 years of power plant operations experience.

- Aaron Socey joined NCPA's Lodi Energy Center as a CT Specialist III (Operator), effective May 15, 2023. Aaron joins us from Ethos Energy Group, where he was an Operations and Maintenance Technician II at the Cosumnes Power Plant. In this role, he operated and maintained systems associated with a 2x1 combined cycle power plant, which included a zero liquid discharge water treatment system. Aaron previously served in the United States Navy and brings over 15 years of experience in the power industry.

Intern Hires:

- Gabriel Oliver joined NCPA's Hydroelectric Operations on May 8, 2023, as a Student Assistant II.
- The Agency welcomed Abigail Goss, Student Assistant III, on May 8, 2023. Abbie will spend the summer interning with the City of Redding.

Promotions:

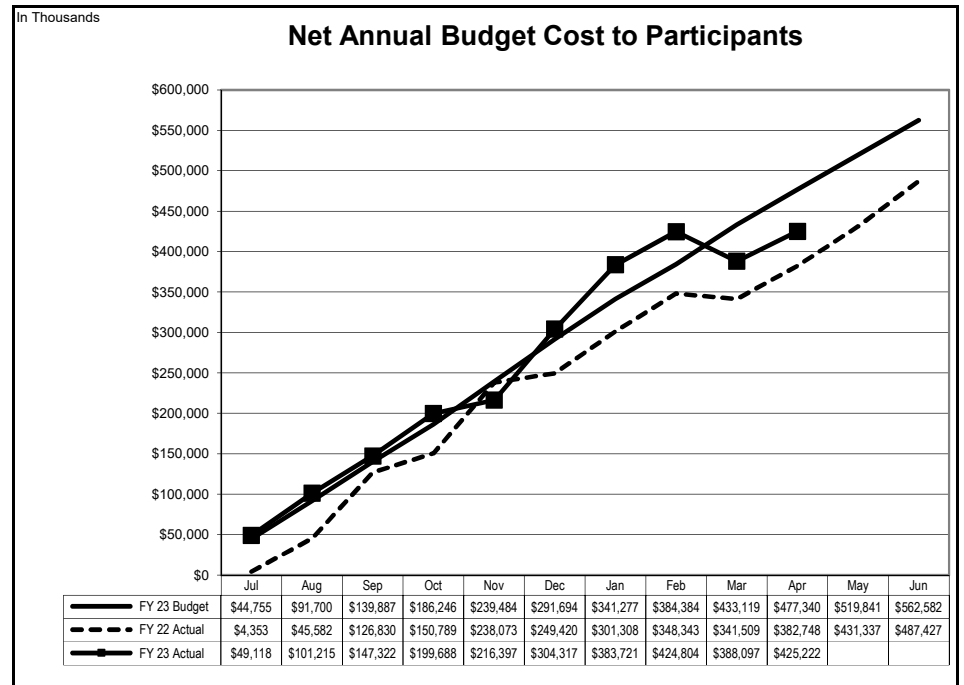
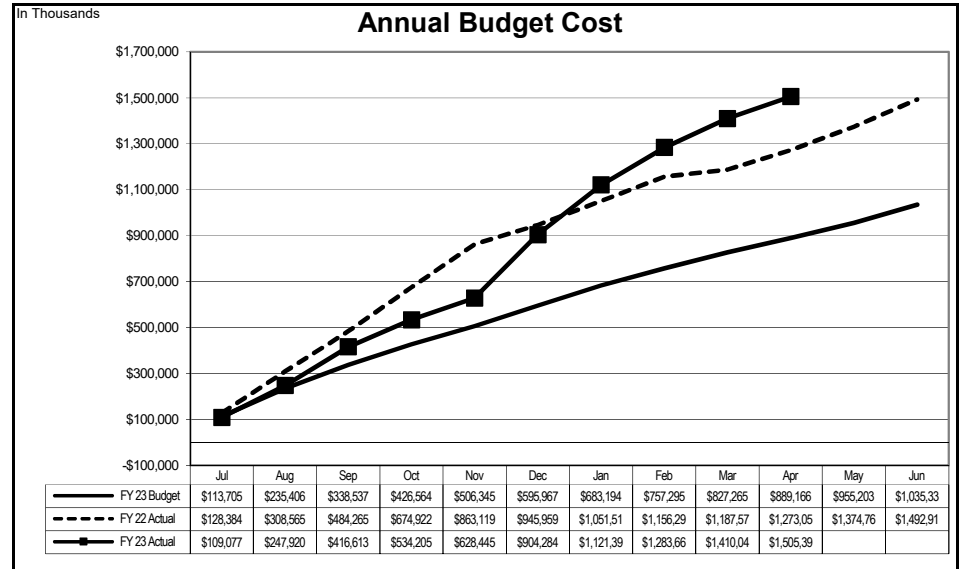
- James Holton was promoted to Supervisor II, Operations (Geo), effective April 23, 2023. Jim joined NCPA in 2010 as a Technician Operator III and most recently has been in the role of Technician Operator – Lead Person. During his time at NCPA, Jim has continued to develop his professional skills and demonstrates a high level of professionalism and willingness to take on new assignments. In this new role, Jim's knowledge and expertise will be vital in supporting NCPA's Geothermal project to meet our strategic goals.

Separations:

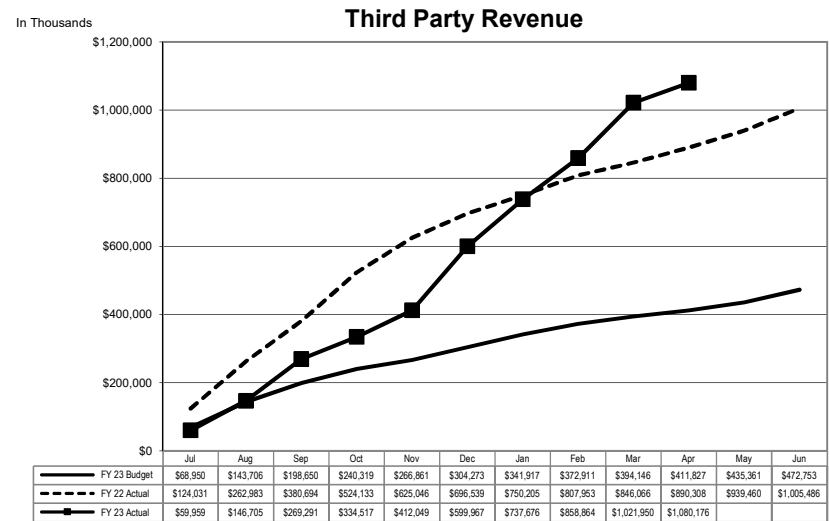
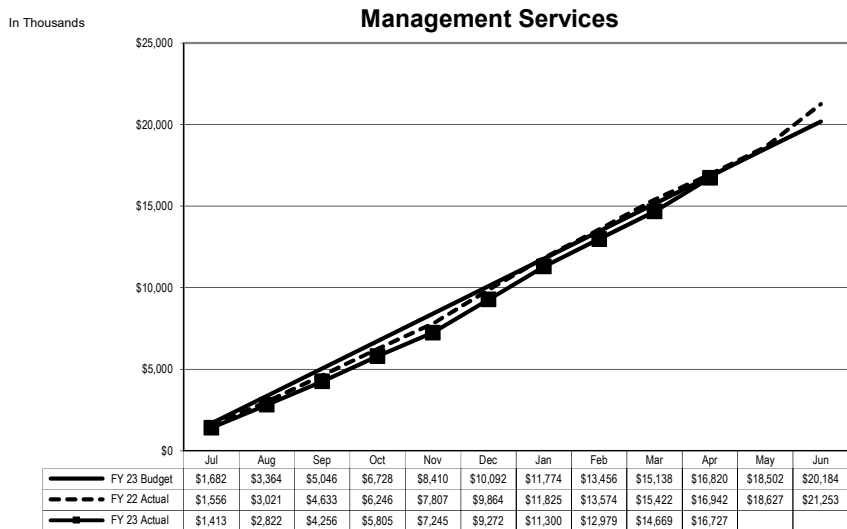
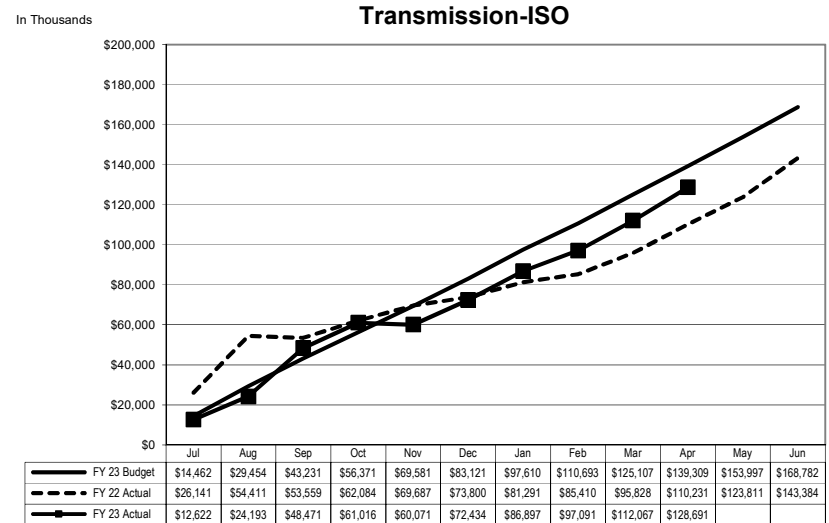
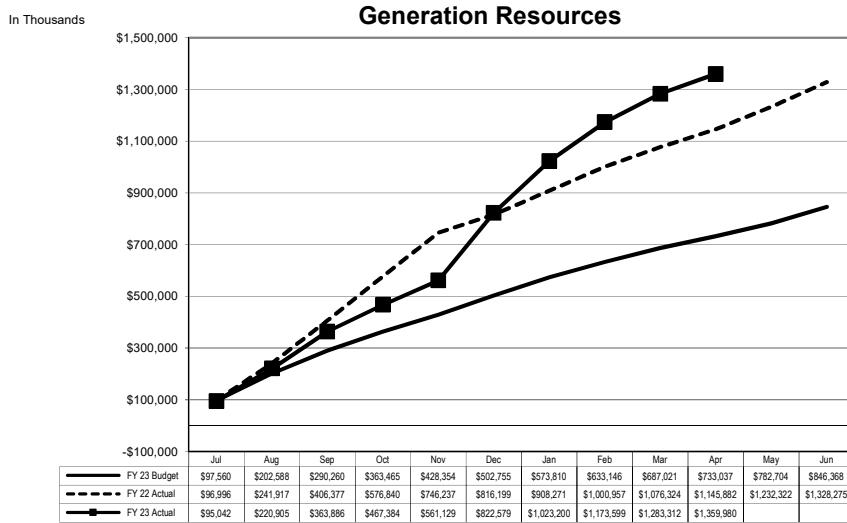
- Scott Aistrup retired from his position as a CT Specialist V at NCPA's Lodi Energy Center on May 1, 2023, after 21 years of service.

**Annual Budget
2022-2023 Fiscal Year To Date
As of April 30, 2023**

In Thousands	Program			
	Annual Budget	Actual	Under(Ovr) Budget	YTD % Remaining
GENERATION RESOURCES				
NCPA Plants				
Hydroelectric	55,514	51,878	\$ 3,636	7%
Geothermal Plant	41,633	36,074	5,559	13%
Combustion Turbine No. 1	5,602	5,077	524	9%
Combustion Turbine No. 2 (STIG)	10,361	7,895	2,466	24%
Lodi Energy Center	137,737	182,922	(45,186)	-33%
	250,847	283,847	(33,000)	-13%
Member Resources - Energy	63,024	77,871	(14,847)	-24%
Member Resources - Natural Gas	2,474	2,318	156	6%
Western Resource	26,100	17,373	8,727	33%
Market Power Purchases	35,533	48,632	(13,098)	-37%
Load Aggregation Costs - ISO	467,469	926,434	(458,966)	-98%
Net GHG Obligations	921	3,505	(2,584)	-281%
	846,368	1,359,980	(513,612)	-61%
TRANSMISSION				
Independent System Operator	168,782	128,691	40,091	24%
MANAGEMENT SERVICES				
Legislative & Regulatory				
Legislative Representation	2,231	1,530	702	31%
Regulatory Representation	715	576	139	19%
Western Representation	723	226	496	69%
Customer Programs	615	413	202	33%
	4,284	2,745	1,539	36%
Judicial Action	460	495	(35)	-8%
Power Management				
System Control & Load Dispatch	7,504	5,875	1,629	22%
Forecasting & Prescheduling	3,044	2,278	766	25%
Industry Restructuring	438	378	61	14%
Contract Admin, Interconnection Svcs & Ext. Affairs	1,032	767	264	26%
Gas Purchase Program	77	45	32	41%
Market Purchase Project	112	65	47	42%
	12,208	9,408	2,799	23%
Energy Risk Management	150	108	42	28%
Settlements	1,012	523	489	48%
Integrated System Support	405	241	164	40%
Participant Pass Through Costs	1,666	1,246	419	25%
Support Services	-	1,960	(1,960)	-
	20,184	16,727	3,457	17%
TOTAL ANNUAL BUDGET COST	1,035,334	1,505,398	(470,064)	-45%
LESS: THIRD PARTY REVENUE				
Plant ISO Energy Sales	193,457	307,459	(114,002)	-59%
Member Resource ISO Energy Sales	49,954	107,842	(57,888)	-116%
Member Owned Generation ISO Energy Sales	118,709	202,003	(83,294)	-70%
Revenue from Customers	-	83,933	(83,933)	-
Customer Owned Generation ISO Energy Sales	-	1,954	(1,954)	-
NCPA Contracts ISO Energy Sales	34,944	55,306	(20,362)	-58%
Western Resource ISO Energy Sales	26,527	14,446	12,081	46%
Load Aggregation Energy Sales	-	165,391	(165,391)	-
Ancillary Services Sales	5,514	3,766	1,748	32%
Transmission Sales	110	92	18	17%
Western Credits, Interest & Other Income	43,537	137,985	(94,447)	-217%
	472,753	1,080,176	(607,423)	-128%
NET ANNUAL BUDGET COST TO PARTICIPANTS	562,582	425,222	\$ 137,360	24%

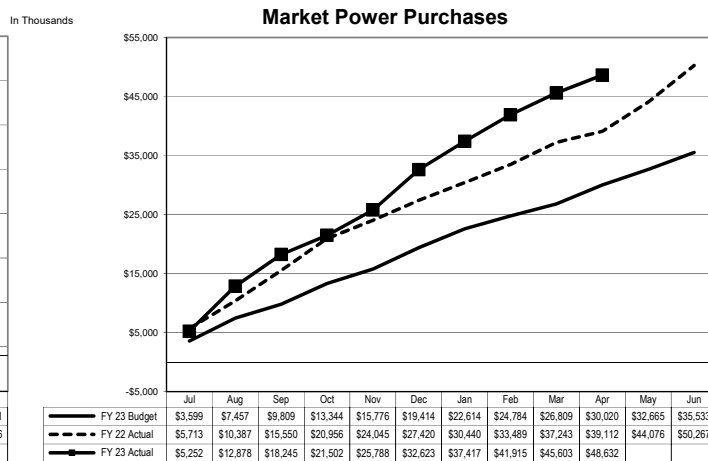
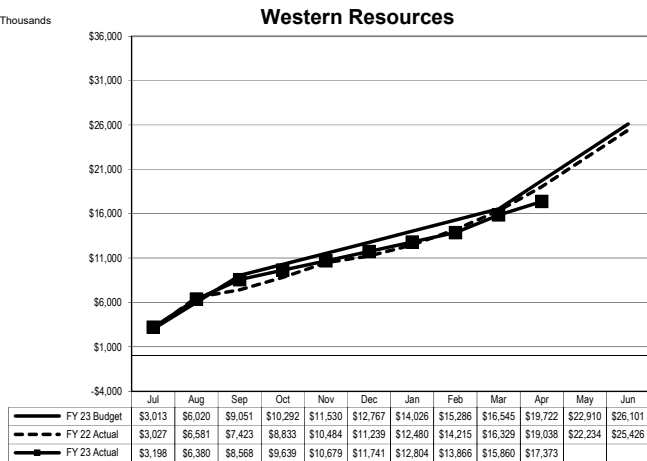
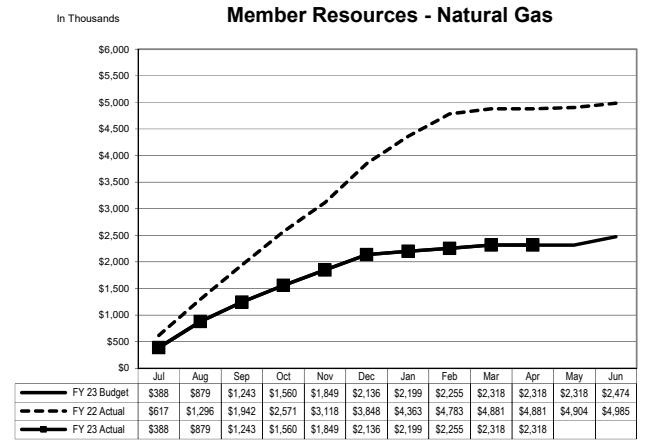
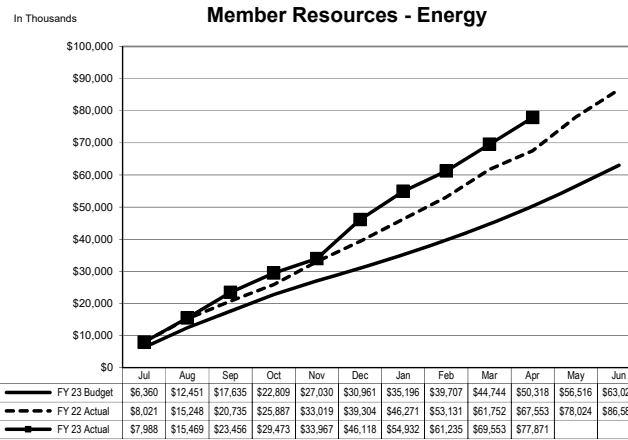
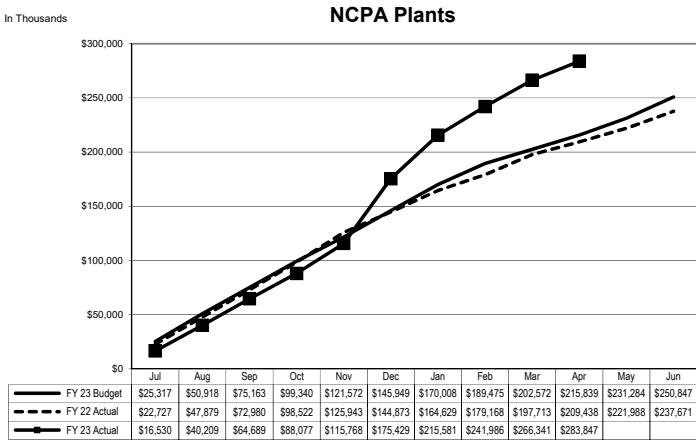


**Annual Budget
Budget vs. Actual By Major Area
As of April 30, 2023**



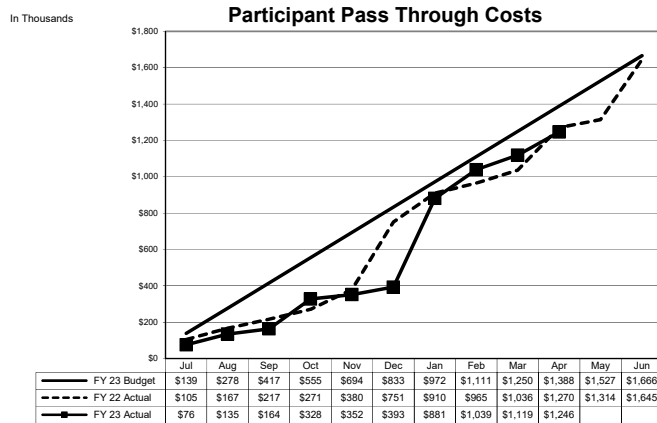
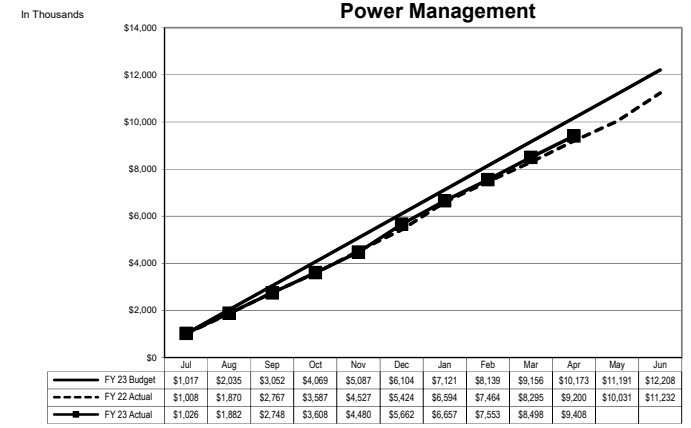
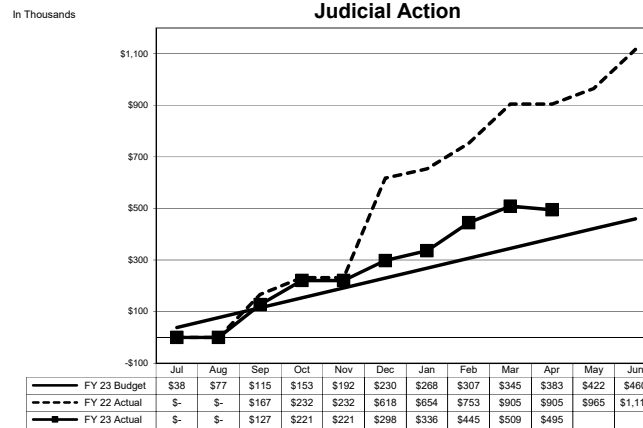
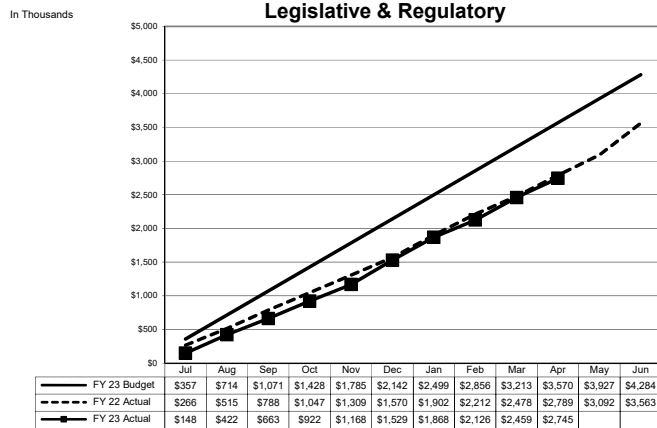
Footnote: Transmission is solely reflective of Independent System Operator (ISO) costs

Annual Budget Cost Generation Resources Analysis By Source As of April 30, 2023



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

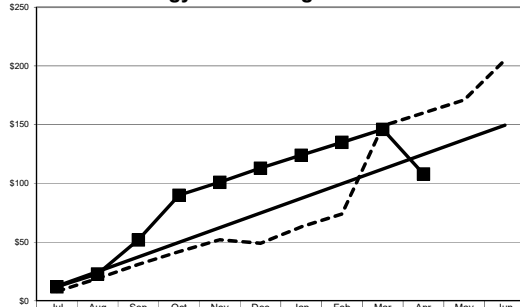
Annual Budget Cost Management Services Analysis By Source As of April 30, 2023



**Annual Budget Cost
Management Services Analysis By Source
As of April 30, 2023**

In Thousands

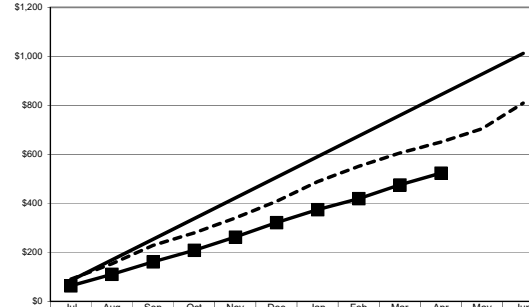
Energy Risk Management



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 23 Budget	\$12	\$25	\$37	\$50	\$62	\$75	\$87	\$100	\$112	\$125	\$137	\$150
FY 22 Actual	\$8	\$19	\$31	\$42	\$52	\$49	\$63	\$74	\$149	\$160	\$171	\$205
FY 23 Actual	\$12	\$23	\$52	\$90	\$101	\$113	\$124	\$135	\$146	\$108		

In Thousands

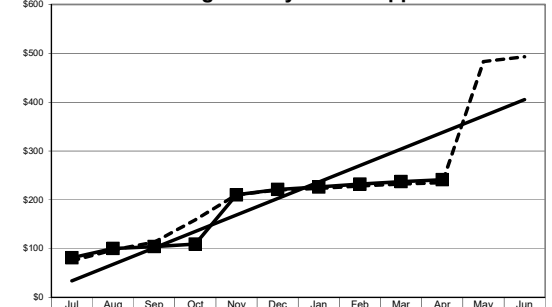
Settlements



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 23 Budget	\$84	\$169	\$253	\$337	\$422	\$506	\$590	\$675	\$759	\$843	\$928	\$1,012
FY 22 Actual	\$90	\$153	\$228	\$279	\$340	\$408	\$488	\$551	\$605	\$650	\$704	\$809
FY 23 Actual	\$63	\$110	\$161	\$208	\$262	\$321	\$374	\$419	\$475	\$523		

In Thousands

Integrated Systems Support

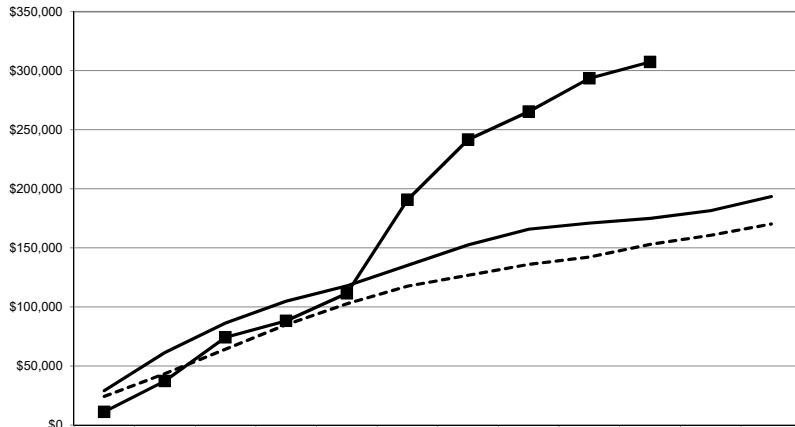


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 23 Budget	\$34	\$68	\$101	\$135	\$169	\$203	\$236	\$270	\$304	\$338	\$371	\$405
FY 22 Actual	\$75	\$97	\$113	\$159	\$210	\$220	\$223	\$228	\$232	\$235	\$483	\$493
FY 23 Actual	\$81	\$100	\$104	\$109	\$210	\$221	\$226	\$232	\$237	\$241		

**Annual Budget Cost
Third Party Revenue Analysis By Source
As of April 30, 2023**

In Thousands

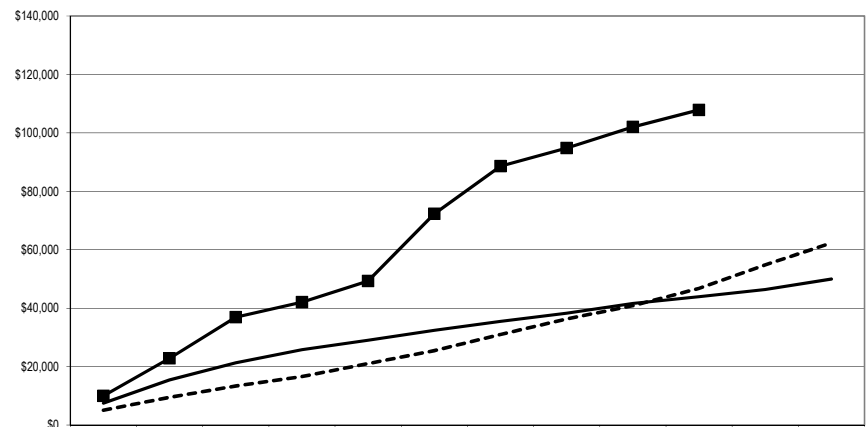
Plant ISO Energy Sales



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 23 Budget	29,114	61,426	86,347	104,866	117,849	135,274	152,602	165,892	170,954	174,993	181,508	193,457
FY 22 Actual	\$24,279	\$43,507	\$64,273	\$85,028	\$102,756	\$117,565	\$126,765	\$136,004	\$142,216	\$153,015	\$160,724	\$170,257
FY 23 Actual	\$11,193	\$37,232	\$74,267	\$88,244	\$111,556	\$190,712	\$241,677	\$265,470	\$293,646	\$307,459		

In Thousands

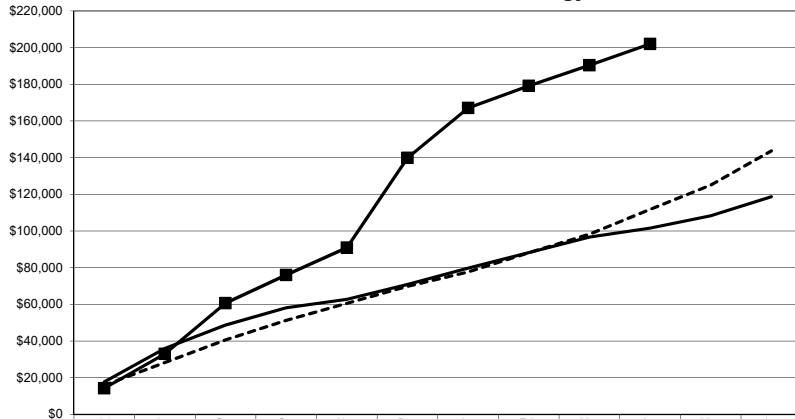
Member Resource ISO Energy Sales



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 23 Budget	7,486	15,415	21,311	25,765	29,000	32,434	35,481	38,283	41,635	43,904	46,407	49,954
FY 22 Actual	\$5,075	\$9,482	\$13,381	\$16,569	\$21,029	\$25,489	\$31,009	\$36,321	\$40,825	\$46,768	\$54,792	\$62,307
FY 23 Actual	\$9,959	\$22,848	\$36,898	\$42,054	\$49,294	\$72,296	\$88,592	\$94,791	\$102,041	\$107,842		

In Thousands

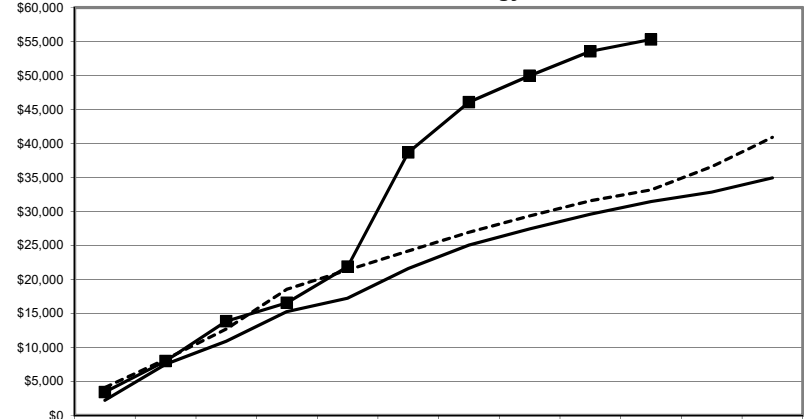
Member Owned Generation ISO Energy Sales



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 23 Budget	17,724	35,953	48,701	58,108	62,709	70,827	79,792	88,194	96,702	101,593	108,295	118,709
FY 22 Actual	\$15,831	\$28,243	\$40,567	\$51,237	\$60,522	\$69,837	\$77,659	\$88,096	\$98,253	\$111,789	\$125,023	\$143,669
FY 23 Actual	\$14,212	\$33,017	\$60,686	\$76,006	\$90,898	\$139,840	\$167,094	\$179,158	\$190,425	\$202,003		

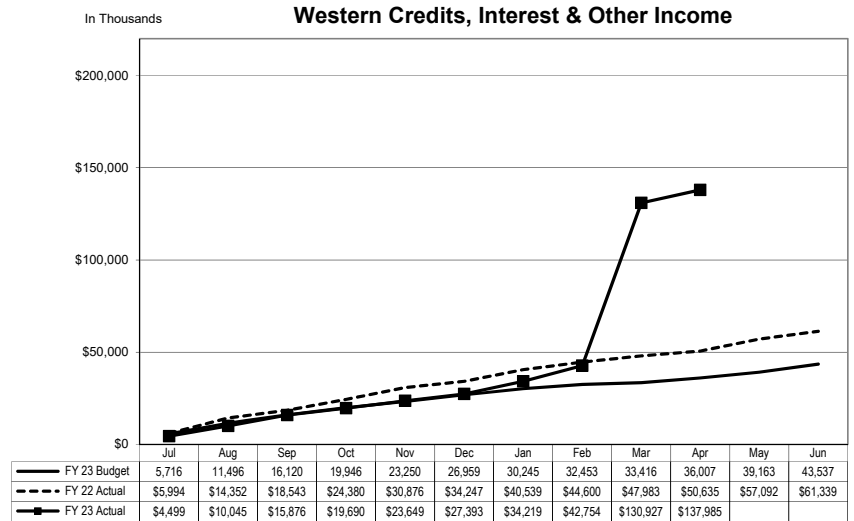
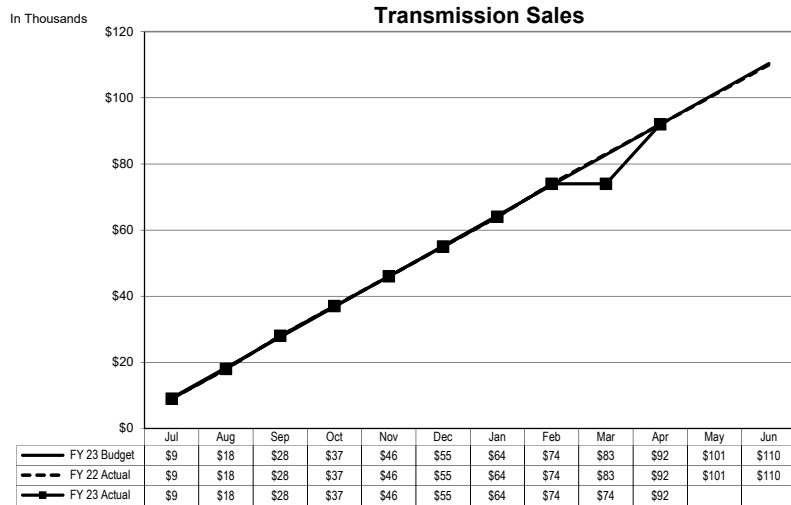
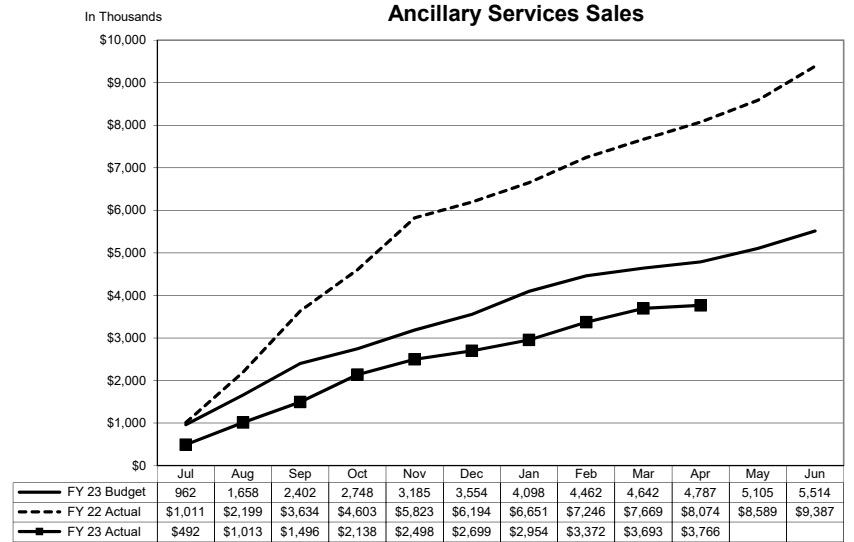
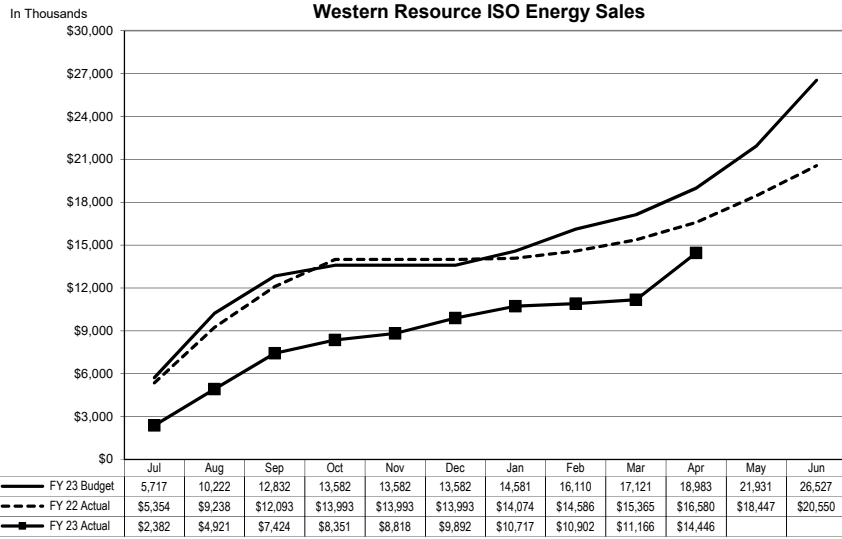
In Thousands

NCPA Contracts ISO Energy Sales



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 23 Budget	2,222	7,517	10,911	15,267	17,240	21,588	25,053	27,443	29,593	31,468	32,851	34,944
FY 22 Actual	\$4,096	\$8,246	\$12,704	\$18,566	\$21,382	\$24,198	\$26,954	\$29,351	\$31,580	\$33,172	\$36,590	\$40,907
FY 23 Actual	\$3,439	\$8,003	\$13,845	\$16,565	\$21,872	\$38,699	\$46,089	\$49,968	\$53,573	\$55,306		

**Annual Budget Cost
Third Party Revenue Analysis By Source
As of April 30, 2023**



**Annual Budget
NCPA Generation Detail Analysis By Plant
As of April 30, 2023**

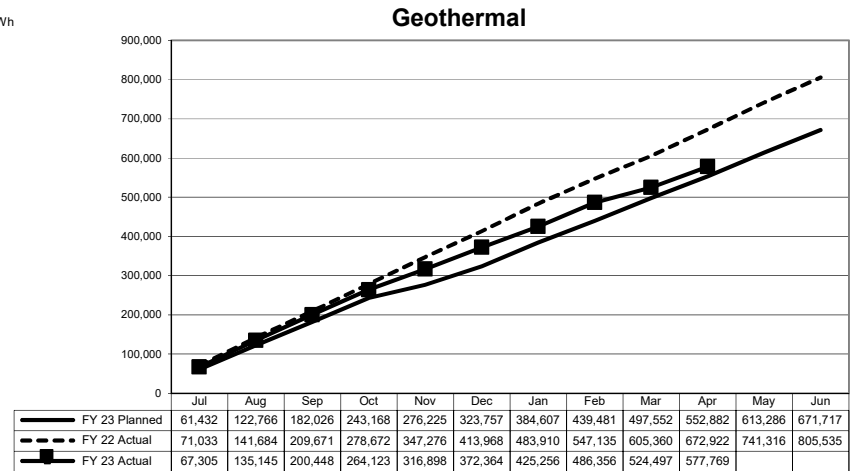
Generation Cost Analysis

\$ in thousands

	Geothermal				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
	Routine O & M	\$ 17,798	\$ 17,814	\$ 30.83	\$ (17)
Capital Assets/Spare Parts Inventories	7,401	3,573	6.18	3,828	52%
Other Costs	12,357	10,658	18.45	1,700	14%
CA ISO Charges	604	1,135	1.96	(531)	-88%
Debt Service	3,473	2,894	5.01	579	17%
Annual Budget	41,633	36,074	62.44	5,559	13%
Less: Third Party Revenue					
Interest Income	150	234	0.40	(84)	-56%
ISO Energy Sales	42,271	63,247	109.47	(20,976)	-50%
Ancillary Services Sales	-	-	-	-	0%
Effluent Revenues	750	920	1.59	(170)	-23%
Misc	113	95	0.16	18	16%
	43,284	64,496	111.63	(21,212)	-49%
Net Annual Budget Cost to Participants	\$ (1,651)	\$ (28,422)	\$ (49.19)	\$ 26,771	-1621%
Net Generation--MWh @ Meter	671,717	577,769			
\$/MWh (A)	\$ (7.63)	\$ (54.20)			

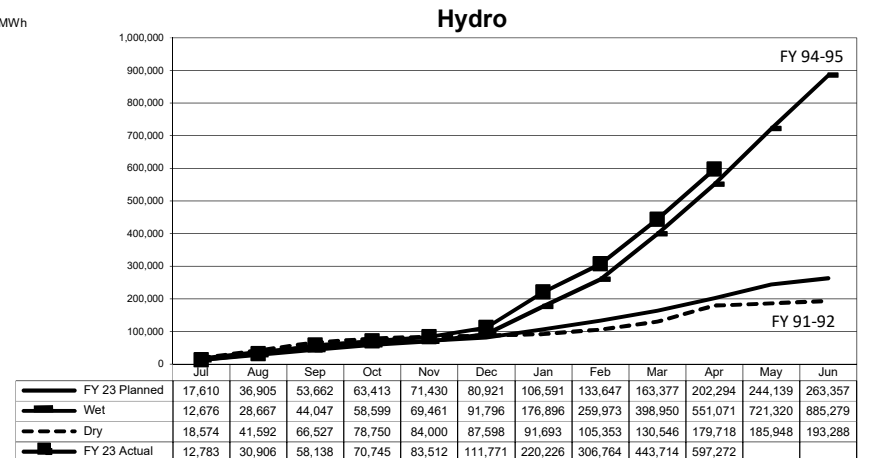
MWhs Generated

In MWh



	Hydroelectric				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
	Routine O & M	\$ 10,203	\$ 7,248	\$ 12.13	\$ 2,955
Capital Assets/Spare Parts Inventories	4,270	3,656	6.12	614	14%
Other Costs	3,993	3,948	6.61	45	1%
CA ISO Charges	1,237	7,184	12.03	(5,947)	-481%
Debt Service	35,811	29,843	49.96	5,969	17%
Annual Budget	55,514	51,878	86.86	3,636	7%
Less: Third Party Revenue					
Interest Income	150	174	0.29	(24)	-16%
ISO Energy Sales	22,182	72,346	121.13	(50,164)	-226%
Ancillary Services Sales	1,224	2,985	5.00	(1,761)	-144%
Misc	-	6	0.01	(6)	0%
	23,556	75,510	126.43	(51,955)	-221%
Net Annual Budget Cost to Participants	\$ 31,958	\$ (23,632)	\$ (39.57)	\$ 55,590	
Net Generation--MWh @ Meter	263,357	597,272			
\$/MWh (A)	\$ (14.63)	\$ (89.53)			

In MWh



Footnotes:

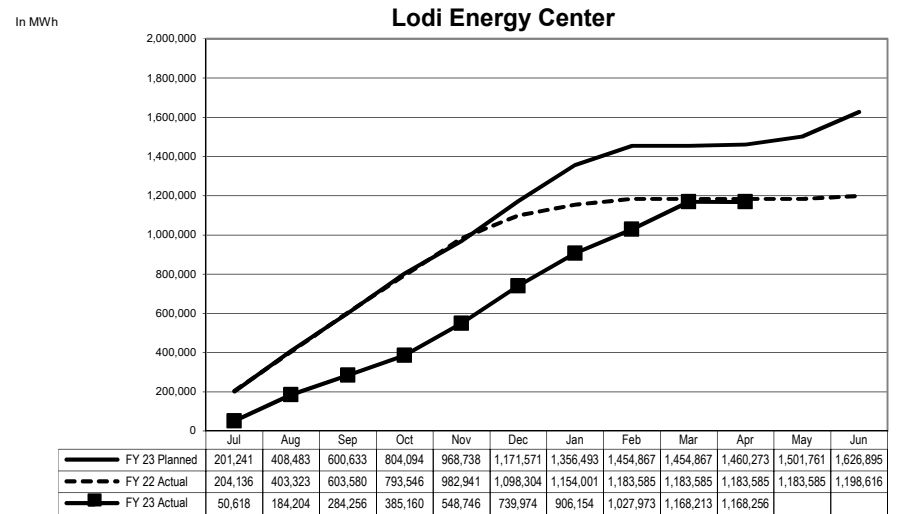
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

**Annual Budget
NCPA Generation Detail Analysis By Plant
As of April 30, 2023**

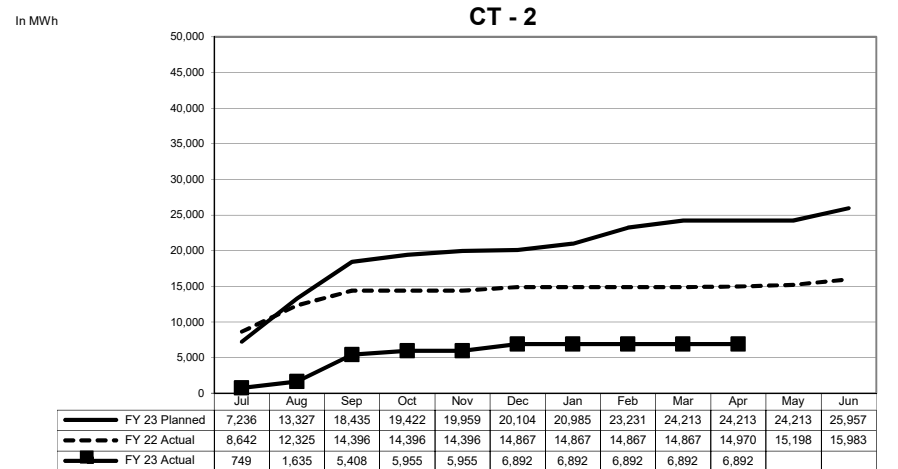
Generation Cost Analysis

	Lodi Energy Center				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 9,826	\$ 8,821	\$ 7.55	\$ 1,005	10%
Fuel	64,819	120,733	103.34	(55,914)	-86%
GHG Allowance Costs	20,250	12,268	10.50	7,982	39%
CA ISO Charges and Energy Purchases	2,970	8,722	7.47	(5,751)	-194%
Capital Assets/Spare Parts Inventories	3,631	2,359	2.02	1,273	35%
Other Costs	10,244	8,356	7.15	1,888	18%
Debt Service	25,996	21,664	18.54	4,333	17%
Annual Budget	137,737	182,922	156.58	(45,186)	-33%
Less: Third Party Revenue					
Interest Income	250	1,016	0.87	(766)	-306%
ISO Energy Sales	121,620	165,433	141.61	(43,814)	-36%
Ancillary Services Sales	2,318	523	0.45	1,794	77%
Transfer Gas Credit	-	-	-	-	0%
GHG Allowance Credits	19,710	12,268	10.50	7,441	38%
Misc	-	10	0.01	(10)	0%
	143,897	179,250	153.43	(35,353)	-25%
Net Annual Budget Cost to Participants	\$ (6,160)	\$ 3,673	\$ 3.14	\$ (9,832)	160%
Net Generation--MWh @ Meter	1,626,895	1,168,256			
\$/MWh (A)	\$ (19.77)	\$ (15.40)			

MWhs Generated



	Combustion Turbine No. 2 (STIG)				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 1,616	\$ 1,087	\$ 157.73	\$ 529	33%
Fuel and Pipeline Transport Charges	2,227	6,603	958.17	(4,377)	-197%
GHG Allowance Costs	424	-	-	424	100%
Capital Assets/Spare Parts Inventories	220	-	-	220	100%
Other Costs	643	(4,032)	(585.06)	4,675	727%
CA ISO Charges	148	-	-	148	100%
Debt Service	5,084	4,237	614.73	847	17%
Annual Budget	10,361	7,895	1,145.58	2,466	24%
Less: Third Party Revenue					
Interest Income	42	111	16.04	(69)	-163%
ISO Energy Sales	4,331	2,540	368.54	1,791	41%
Ancillary Service Sales	-	-	-	-	0%
Fuel and Pipeline Transport Credits	1,775	7,680	1,114.32	(5,905)	-333%
GHG Allowance Credits	424	-	-	424	100%
Misc	-	3	0.37	(3)	0%
	6,572	10,333	1,499.27	(3,760)	-57%
Net Annual Budget Cost to Participants	\$ 3,789	\$ (2,438)	\$ (353.69)	\$ 6,227	164%
Net Generation--MWh @ Meter	25,957	6,892			
\$/MWh (A)	\$ (49.88)	\$ (968.43)			



Footnotes:

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

**Annual Budget
NCPA Generation Detail Analysis By Plant
As of April 30, 2023**

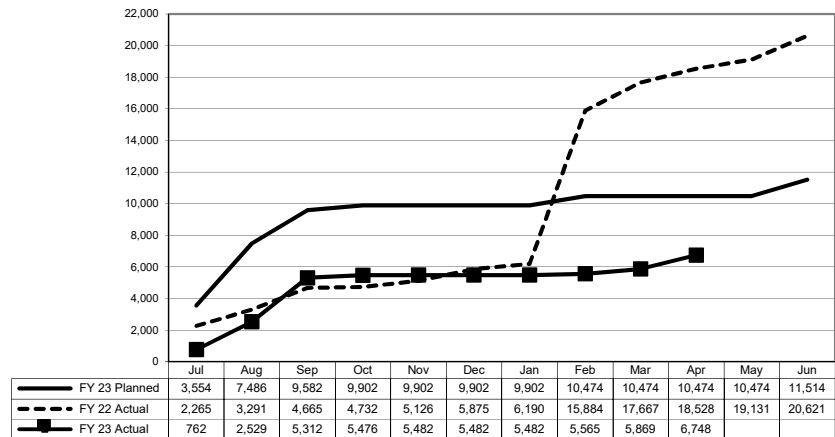
Generation Cost Analysis

	Combustion Turbine No. 1				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 2,530	\$ 2,024	\$ 300.01	\$ 506	20%
Fuel and Pipeline Transport Charges	1,214	1,114	165.16	99	8%
Capital Assets/Spare Parts Inventories	800	529	78.32	271	34%
Other Costs	882	763	113.09	119	13%
CA ISO Charges	176	647	95.81	(471)	-268%
Debt Service	-	-	-	-	-
Annual Budget	5,602	5,077	752.39	524	9%
Less: Third Party Revenue					
Interest Income	55	66		(11)	-20%
ISO Energy Sales	3,053	3,893	576.96	(840)	-28%
Ancillary Services Sales	-	-	-	-	0%
Misc	-	-	-	-	0%
	3,108	3,959	576.96	(851)	-27%
Net Annual Budget Cost to Participants	\$ 2,493	\$ 1,118	\$ 165.64	\$ 1,375	55%
Net Generation--MWh @ Meter	11,514	6,748			
\$/MWh (A)	\$ 216.54	\$ 165.64			

MWhs Generated

In MWh

CT - 1



Footnotes:

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