



BUSINESS PROGRESS REPORT

March 2023

Table of Contents

Generation Costs & Reliability	1
Environmental, Health & Safety Projects	4
Power Management/NCPA Market Results.....	5
Debt & Financial Management	12
Schedule Coordination Goals.....	12
NCPA Bills & Settlements.....	13
Political Arena State/Federal/Western Programs	14
Human Resources.....	15
Annual Budget FY to Date.....	16
Budget vs. Actual by Major Area	17
Generation Resources Analysis by Source	18
Management Services Analysis by Source	19
Third Party Revenue Analysis by Source	21
Generation Detail Analysis by Plant	23

Generation Costs & Reliability

Combustion Turbine Project

Unit Operation for February 2023

Unit	Availability		Production			Reason for Run
CT1 Alameda	Unit 1	Unit 2	Unit 1	0.0	MWh	CAISO / CAISO
	100.0%	100.0%	Unit 2	0.0	MWh	
Curtailments, Outages, and Comments:						
Unit 1: Normal Operation.						
Unit 2: Normal Operation.						
Unit	Availability		Production			Reason for Run
CT1 Lodi	0%		83.9	MWh		COMMISSIONING
Curtailments, Outages, and Comments:						
2/01 @ 00:00 - 2/28 @ 23:59; Annual maintenance outage and excitation install, OMS 12321567						
Unit	Availability		Production			Reason for Run
CT2 STIG	100.0%		0.0	MWh		CAISO
Curtailments, Outages, and Comments:						
Normal Operation.						
Unit	Availability		Production			Reason for Run
LEC	96.4%		121,823	MWh		CAISO
Curtailments, Outages, and Comments:						
2/11 @ 00:00 - 23:59; HRSG lining repair, OMS 13111008						

Maintenance Summary – Specific per asset above.

Geothermal Facilities

Availability/Production for February 2023

Unit	Availability		Net Electricity Generated/Water Delivered		Out-of-Service/Descriptors
Unit 1	100	%	18,761	MWh	U1 In service
Unit 2	100	%	17,233	MWh	U2 was in service
Unit 3	N/A	%	N/A	-	Unit 3 remains out of service.
Unit 4	97.92	%	25,368	MWh	U 4 Back online 2/1/23, 10 hours of generation on 2/1/23
Southeast Geysers Effluent Pipeline	94	%	96.6	mgallons	Average flow rate: 2,209 gpm
Southeast Solar Plant	N/A		76,830	KWh	Year-to-date KWh: 1,567,922
Bear Canyon Pump Station Zero Solar	N/A		46,880	KWh	Year-to-date KWh: 1,151,395

* Accounts for an additional 868 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

Hydroelectric Project

Availability/Production for February 2023

Units	Availability	Net Electricity Generated	Out-of-Service
Collierville Unit 1	98.75%	42408 MWh	CV Unit 1 – was out of service on 2/25/23 from 0604 to 1428 for Wavetrap insulator replacement.
Collierville Unit 2	100%	40766 MWh	CV Unit 2 – No Outages
Spicer Unit 1	96.19%	1581 MWh	NSM1- Out of Service on 1/2/23 from 1111 to 1148 for Oil Pump Replacement and on 2/4/23 to 2/5/23 from 2233 to 0854 for Comm Trouble and on 2/28/23 from 0919 to 2359 for Comm Trouble
Spicer Unit 2	96.25%	1575 MWh	NSM2- Out of Service on 2/4/23 to 2/5/23 from 2233 to 0854 for Comm Trouble and on 2/28/23 from 0919 to 2359 for Comm Trouble
Spicer Unit 3	88.3%	209 MWh	NSM3- Out of Service on 2/4/23 to 2/7/23 from 2233 to 1439 for Comm Trouble and on 2/28/23 from 0927 to 2359 for Comm Trouble.

Operations & Maintenance Activities:

- CMMS work orders
- Winter Access Issues
- Wavetrap Insulator Replacement Line 1 CV

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

- There were no Lost Time, Cal OSHA Recordable accidents in the month of February. Geo had one vehicle accident in which a contractor backed their truck into a light post which resulted in damage to the vehicle but not to any other equipment or people. Geo also had an employee who slipped on ice while investigating a non-functioning potable water pump, resulting in an injury to his knee, however, medical treatment was not necessary and so this incident was not categorized as Lost Time or Recordable.
- Find below a Safety Report that highlights the following areas: recordable incidents and lost time accidents (LTAs) reported this period and this calendar year; the number of days since last recordable or LTA; the number of work hours since last recordable or LTA; and vehicle accidents reported this month and this calendar year. In September of 2012, Generation Services completed an internal audit of its records with the results reflected in this report and was updated through the payroll period ended February 25, 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.

February 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	837	26	2,882	3,866
Work Hours Since Last Recordable	73,684	5,224	434,062	2,918,603
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	0	0	0
Days without LTA	5,616	2,745	10,786	6,879
Work Hours without LTA	506,253	268,198	845,606	2,540,621
Vehicle Incident (month)	0	1	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 February 25, 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

	February 2023		Calendar Year 2023	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	331.16 2/27 @ 1200	177,457	331.16 2/27 @ 1200	374,290
SVP	571.76 2/28 @ 1200	350,351	571.76 2/28 @ 1200	734,928
MSSA	896.9 2/27 @ 1200	527,808	896.9 2/27 @ 1200	1,109,218

Last Year 2022 Data*

	February 2022		Calendar Year 2022	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	313.28 2/22 @ 1900	169,429	511.56 9/6 @ 1600	360,580
SVP	546.08 2/10 @ 1400	335,969	687.74 9/6 @ 1300	700,372
MSSA	840.25 2/22 @ 1900	505,398	1176.2 9/6 @ 1400	1,060,952

*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	571.76 2/28 @ 1200
MSSA	1176.20 MW on 9/6/22 @ 1400	896.9 2/27 @ 1200

- 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		
	February 2023	Calendar Year 2023
MSSA % Within the Band	98.39%	98.68%

CAISO Grid TEST NOTICE 2023-02-06 08:10:00

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 February 2023 were 177,457 MWh versus the budget forecast of 179,885 MWh, resulting in a forecast error of 2.01%. The current weather outlook for March 2023 is for below normal temperatures and above normal rainfall. The Pool's March load forecast is 187,154 MWh compared with extrapolated actuals of 195,136 MWh as of March 14, 2023.
- Lodi Energy Center (LEC) ran 471 hours out of a possible 672 producing 121,818 MWh. Natural gas and power prices are significantly higher than a year ago due to gas basis difference between PG&E City and Henry Hub.
- During February 2023, 9.04" of rain was recorded at the Big Trees gauge. February average rainfall at Big Trees is 6.90". New Spicer Meadows storage decreased by just over 18,000 acre feet in February.
- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) has been reduced to \$125/MWh. Releases from NSMR have been increased to make room for the substantially above-average snowpack. Currently the Central Sierra snowpack is ~213% of April 1st average.
- New Spicer Meadows storage as of February 31, 2023 was 62,386 acre feet. The historical average storage at the end of February is 75,309 acre feet. As of March 14th, storage was 59,724 acre feet.
- Combined Calaveras Project generation for the Pool in February 2023 totaled 44,084MWh, down from 55,140MWh in January 2023.
- Western Base Resource (BR) deliveries for the Pool during February 2023 were 1,578 MWh. Displacement program energy totaled 0 MWh. The Pool's share of expected total delivery from the Western Base Resource for March 2023 is 3,843 MWh, with 984 MWh having been delivered through March 18, 2023.
- The PG&E Citygate gas index averaged \$7.748 / MMBtu during the month of February as compared to an average of \$16.32 for January. March 2023 average price is \$8.59 through the 14th. The April 2023 PG&E Citygate forward price is \$6.48 / MMBtu.
- Day-Ahead PG&E DLAP electricity prices for February averaged \$78.34 / MWh On-Peak and \$73.82 Off-Peak, with a high of \$193.88. DLAP prices have averaged \$90.94 On-Peak and \$83.44 Off-Peak for the period March 1st through the 14th. The forward power prices for April are \$52.50 On-Peak and \$58.24 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 May 2023:
 - Monthly System Resource Adequacy Demonstration (filed March 17, 2023)
 - Monthly Supply Plan (filed March 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:

Interconnection Process Enhancements 2023

The 2023 Interconnection Process Enhancements (IPE) initiative is focused on enhancing coordination of resource procurement and interconnection, resource planning and transmission planning to achieve state reliability and policy needs. In the 2023 IPE initiative the CAISO intends to consider more fundamental changes to the Generator Interconnection and Deliverability Allocation Procedures (GIDAP) than were considered in IPE 2021.

Issue paper presented 3/13/2023.

- CAISO is driving to implement transformational reforms to the Generator Interconnection and Deliverability Allocation Procedures (GIDAP) and break down barriers to efficient and timely resource development. Charges are required to achieve the state's vastly accelerated pace of new resources that must be connected to the grid and are essential for California to meet its reliability and SB 100 goals in a timely and cost effective manner. IPE 2023 Initiative is part of a larger set of foundational framework improvements being coordinated among the CPUC, CEC, and ISO that was set forth in a joint Memorandum of Understanding (MOU) signed December 2022.
- The IPE 2023 Initiative will have two tracks
 - Track 1 will focus on immediate adjustments to the Cluster 15 schedule.
 - Accept Cluster 15 interconnection requests during the normal April 3 – April 17 open window
 - Perform completeness review of interconnection requests received during open window and finalize list of interconnection requests deemed complete by May 1, 2023.
 - Postpone validation of Cluster 15 interconnection requests, project scoping meetings and studies.
 - Track 2 will focus on the changes to the GIDAP cluster study process needed to achieve the MOU goals.
 - Priority must be given to projects that seek to utilize available capacity coming out of ISO transmission planning process.
 - The volume of interconnection requests receiving detailed study results must be tempered to align with state agency resource plans.

- Better alignment with load-serving entities' resource procurement functions is needed and opportunities for alignment explored.
- Element 1: Accept or process only interconnection requests where transmission system has available existing or planned capacity.
- Element 2: Limit number of interconnection requests in a study area based on transmission capacity being planned for that area.
- Element 3: Require projects to have a PPA or be shortlisted to proceed to phase II studies.
- Element 4: Only open a new interconnection request window when warranted.
- Next Steps
 - 3/27/2023 – Stakeholder comments due
 - 4/10/2023 Publish draft tariff language and final proposal
 - 4/24/2023 – Stakeholder comments due on draft tariff language & final proposal
 - 5/1/2023 – Stakeholder conference call on tariff language & final proposal
 - 5/17/2023 – Board of Governors meeting

Day-Ahead Market Enhancements

This initiative will explore a new day-ahead product that will address ramping needs between intervals and uncertainty that can occur between the day-ahead and real-time markets.

CAISO held stakeholder workshops to continue discussing Imbalance Reserve Product

- CAISO Staff reviewed goals of DAME and efficiencies gained by an imbalance product and presented a high-level articulation of the nodal approach.
- WPTF presented an explanation of why to consider a zonal framework.
- Vistra presented on efficiencies of downward products, benchmarking and summer of discussion at FERC technical conference, and a summary of their zonal proposal.
- WPTF provided their path forward and evaluation framework recommendations.
- IRP discussion was continued in March 7 and 8 workshops.
- Next steps
 - Mar 24, 2023 Comments due
 - TBD - Draft business requirements specification and tariff development
 - TBD – Board approval

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	-	0	\$609,688	\$ 47.06	\$ -	\$ 96.21
Apr-23	41,280	-	0	\$1,571,328	\$ 38.07	\$ -	\$ 80.28
May-23	74,195	-	0	\$1,571,328	\$ 21.18	\$ -	\$ 60.94
Jun-23	78,807	-	0	\$1,571,328	\$ 19.94	\$ -	\$ 48.03
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 1,578 MWh of Base Resource (BR) energy in February 2023 with an estimated MEEA savings of \$210. There was zero displaced energy as the program is temporarily suspended through end of March 2023.

Displacement Agreement

The existing Displacement Agreement has an end date of December 31, 2024. During the 2023 Annual CVP Displacement Working Group Meeting, WAPA proposed to extend the Displacement Contract Term for 2 years, through December 31, 2026. The CVP Corp contract will also need to be amended to extend for an additional 2 years.

Next Steps: WAPA requested customers to respond whether they are in agreement to extend the Displacement contract by April 1, 2023. If majority of the customer are supportive, WAPA will draft an amendment for customer's review and comment.

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

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 three informal meetings so far.

- 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.
- Next informal customer meeting is scheduled will be held in March or April 2023. WAPA will provide an overview for Formal Process. Formal Process will start in June/July 2023.

Interconnection Affairs

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 proposed developing new Meter Maintenance Program
- Staff received bids from two (2) vendors
 - Trimark Associates – Final Bid - \$247K Annually
 - Ulteig – 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
 - Committee directed development of a separate Program Agreement for Member cost allocation

Current Status

- Staff is working with Ulteig on additional details (ex. future meter additions)

- Draft Vendor Agreement and Program Agreement in legal review

Next Steps

- Focus/Ad Hoc meeting to review Program Agreement
- Commission Approval
- Coordinate with Members for Execution

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

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

- The consumer price index eased slightly from January to February but still pointed to an elevated inflation rate that is posing a challenge for the Federal Reserve at a delicate moment for the financial system. The index climbed 6% from 12 months earlier, down from January's 6.4% year-over-year increase and well below a recent peak of 9.1% in June 2022. However, this remains far above the Fed's 2% annual inflation target.
- With the recent stress in the banking sector, many Wall Street analysts are no longer expecting the Federal Reserve to deliver a rate hike at its March 22 meeting with considerable uncertainty about the path beyond March. They believe the Fed will take a temporary rate-hike pause keeping the overnight borrowing rate between 4.50% - 4.75%. However, there may be other factors that force the Fed to continue tightening rates.
- In light of the current banking turmoil, NCPA does not hold any deposits or bonds with Silicon Valley Bank (SVB) or Signature Bank, two banks that were recently taken over by the FDIC earlier this month. To explain what happened, SVB had grown to the 16th largest bank and invested their excess funds in long-term bonds when rates were near zero. Over the last year, the Fed had increased rates from zero to the high fours. This resulted in the value of their bonds decreasing significantly. As the need for liquidity grew, the bank was forced to sell these bonds at a \$1.8 billion after-tax loss urgently requiring them to raise more capital to address depositor concerns. This, in turn, caused their stock to tank creating a \$160 billion loss of value. Their customers attempted to withdraw their funds creating a "run on the bank" and forcing the FDIC to step in and take over. Due to this, the entire banking sector was rattled creating volatility. Despite this, larger banking institutions such as BofA, Wells Fargo, US Bank, and JP Morgan have more stringent regulatory requirements than the regional banks requiring them to have sufficient capital. There is no expectation this type of failure will trickle down to them.

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 the week of March 20, 2023
 - Development of a prototype for a Logging application for Dispatch and Scheduling is underway. This was in response to request to replace the current legacy NCPA Logger app.
- 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. Accounting is reviewing the current GL Account Codes for potential major restructuring.

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. This includes working with consulting firm Archer to draft and provide deliverables to meet CIP-013 Supply Chain requirements and AESI which is providing procedures and supporting documents for CIP-007, CIP-009 and CIP-010.
- IS has promoted Mark Heaton from SCADA Analyst to Cyber Security Analyst to perform the technical responsibilities of securing our Dispatch Control Center in accordance with the NERC CIP Medium impact standards. Currently we are performing interviews to backfill his position.
- Operations and Support has successfully cutover the remaining voice recorded lines for Dispatch and Scheduling at the HQ and DRC locations. IS plans to also move the CT plants over to the new solution by end of March, with the final location, Hydro, being completed sometime in April or May.
- IS continues to work with facilities to replace an outdated visitor management software program with a new solution called Splan. This work includes setting up new servers and working with our security vendor to install the necessary applications and services. Expected to be completed by Spring of 2023.

NCPA Bills & Settlements

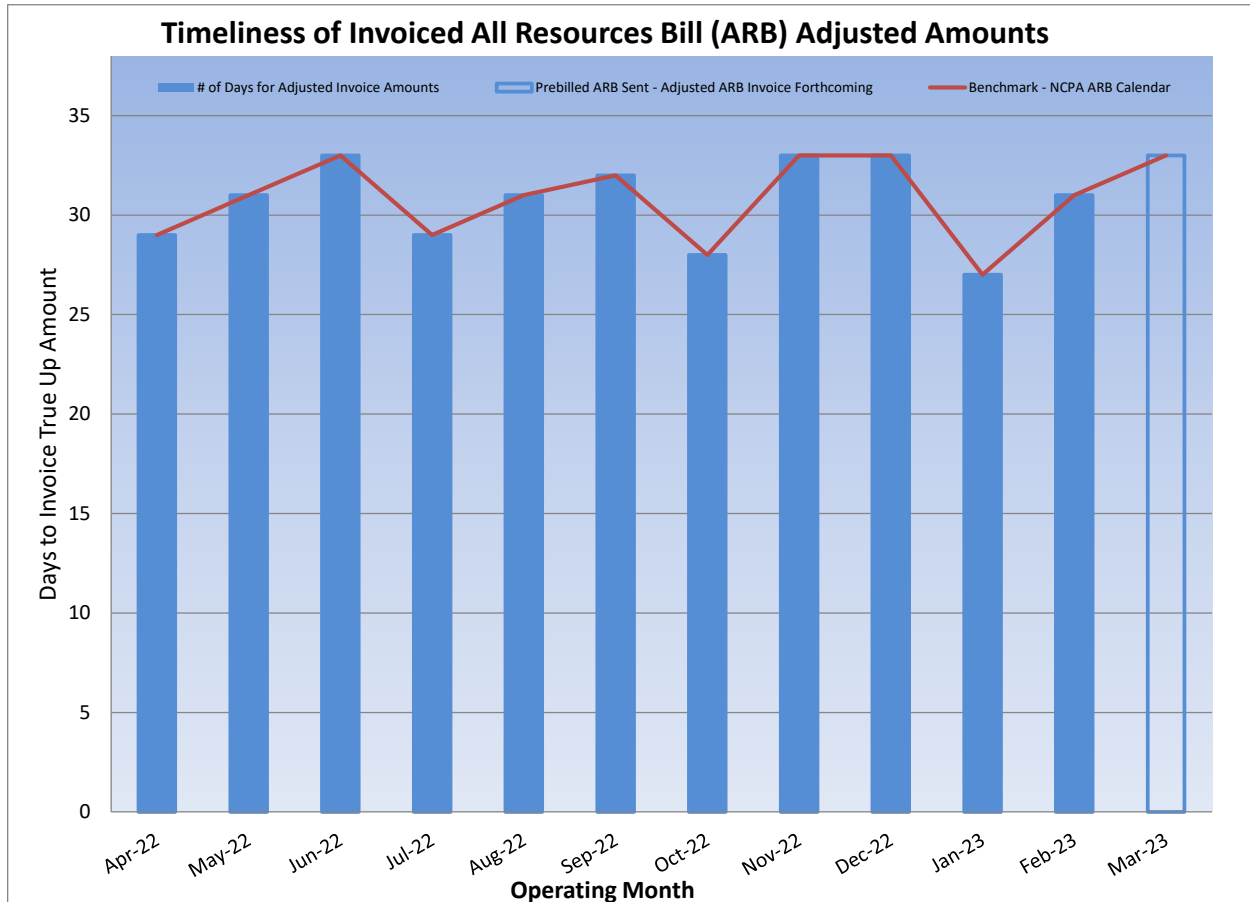
Progress Against the Strategic Plan

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 March 2023 NCPA All Resources Bill (ARB) monthly invoice sent to members on February 21, 2023 contains:

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

- December 2019 (7th Adjustment) T+36-month CAISO settlement true-up;



Legislative & Regulatory

Regulatory Update:

- NCPA continued its multi-faceted campaign to raise awareness and a call for action with state/federal policymakers to investigate the causes surrounding the recent natural gas price spike. This effort has led to the commencement of a formal investigation at the CPUC as well as public acknowledgement by FERC Chairman Phillips that his agency is undertaking enhanced surveillance through its Office of Enforcement. NCPA intends to become a formal party to the CPUC proceeding.

State Legislative Update:

- On March 3, 2023, NCPA provided a discussion and Port of Oakland tour on LEC hydrogen integration/production for 11 legislative staffers. The discussion led by Port representatives and NCPA staff covered the LEC hydrogen project, hydrogen benefits, and pipeline safety. The Port of Oakland also highlighted its Terminal Modernization Project and provided a tour of the Port's resources.

Human Resources

Hires:

Sara Fitzsimon joined NCPA Headquarters as a Federal Government Affairs and Member Programs Manager, effective March 13, 2023. Sara joins us from the California Hydrogen Business Council, where she served as Policy Director. In this role, she led policy development on behalf of 140-member companies working to commercialize hydrogen across the energy and transportation sectors and engaged with coalition partners and stakeholders to advance effective policy in this area. Previously, Sara worked for the Service Employees International Union Local 2015 as a Legislative Advocate. Sara holds a Bachelor of Arts in Criminal Justice from Wheeling Jesuit University and a Juris Doctorate from the McGeorge School of Law.

Intern Hires:

None.

Promotions:

Benjamin Hector was promoted to System Dispatcher, System Control & Load Dispatch, effective February 12, 2023. Ben joined NCPA in 2020 as a Schedule Coordinator II and was promoted to Schedule Coordinator III in 2021. Ben has over five years of System Operator experience and over ten years of prior experience in the financial industry. Ben is NERC certified as a Reliability System Operator. In his new role, Ben will be responsible for dispatching system resources to match NCPA electrical load in a safe and economical manner.

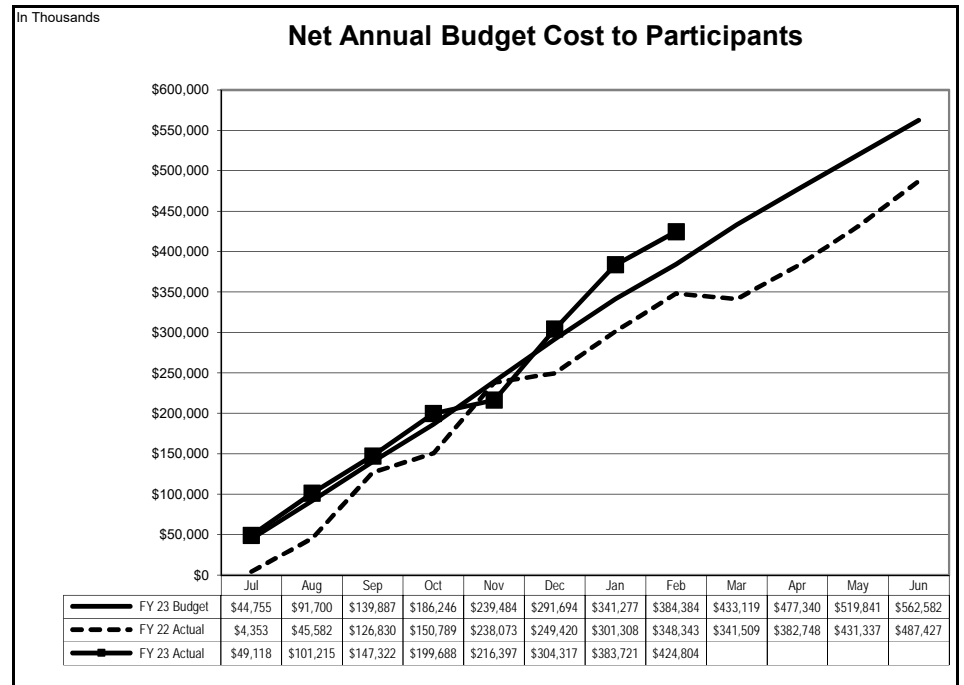
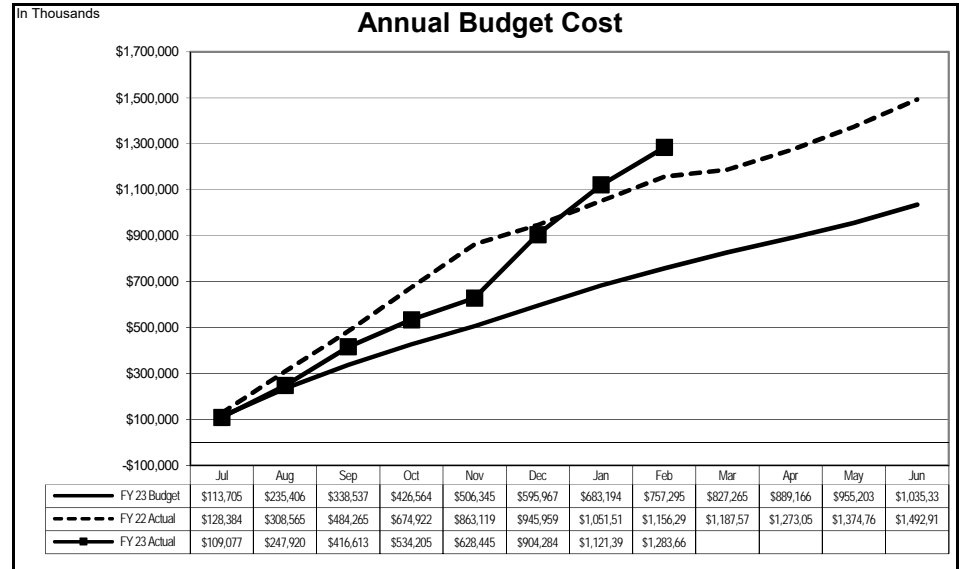
Mark Heaton was promoted to Cyber Security Analyst, Information Services, effective February 12, 2023. Mark joined NCPA in 2017 as a Computer Technology Analyst III and was promoted to Computer Technology Analyst IV in 2021. In his new role, Mark will be responsible for implementing and maintaining safeguards to protect NCPA's Dispatch Control Centers from cyber threats and to support the Agency's Dispatch Control Center's in complying with the NERC Critical Infrastructure Protection (CIP) reliability standards.

Separations:

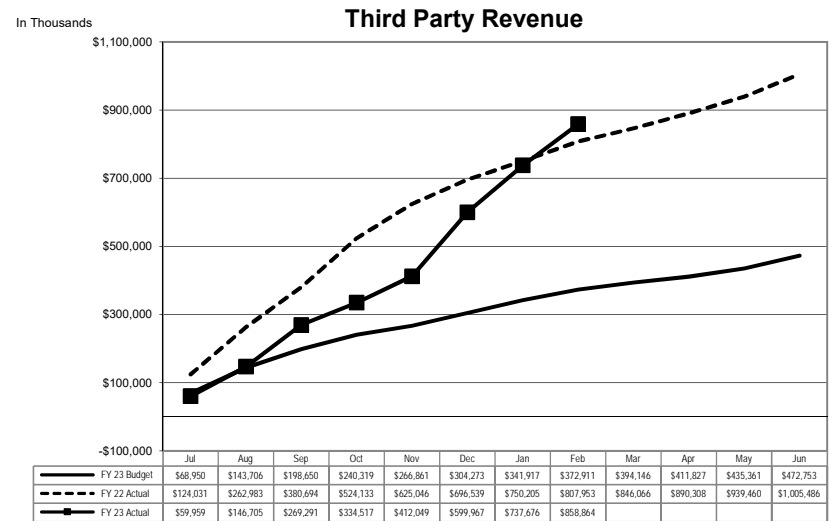
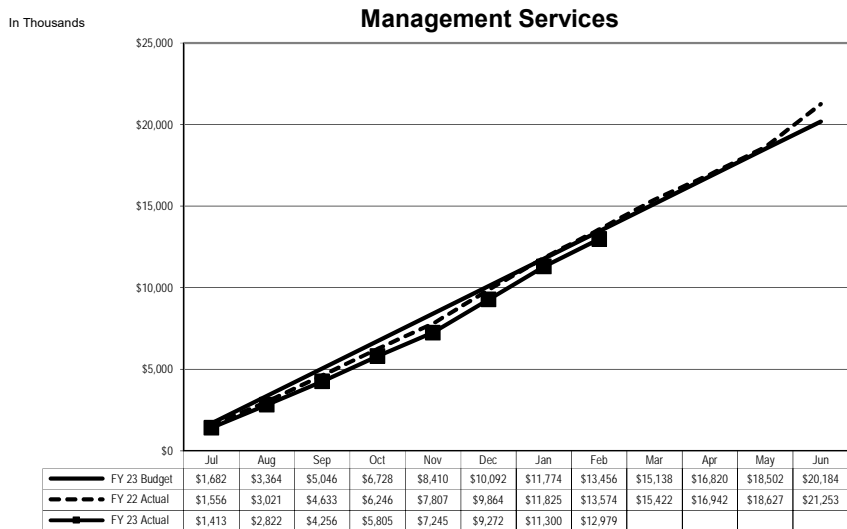
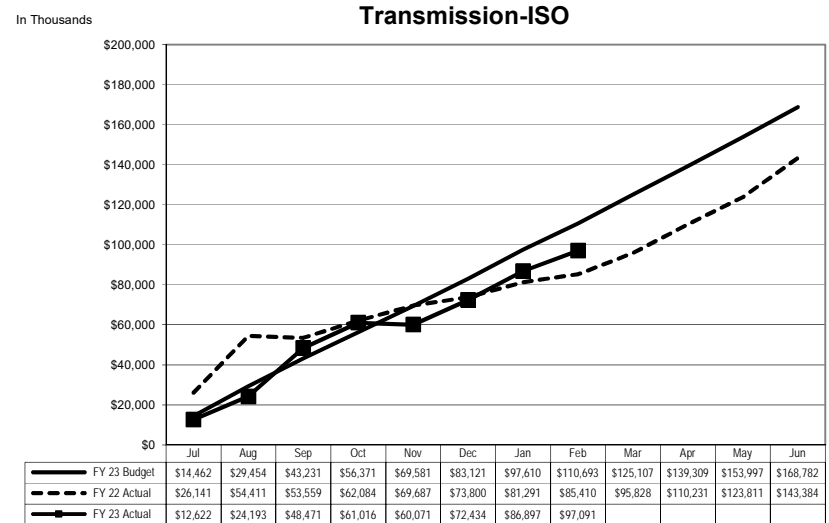
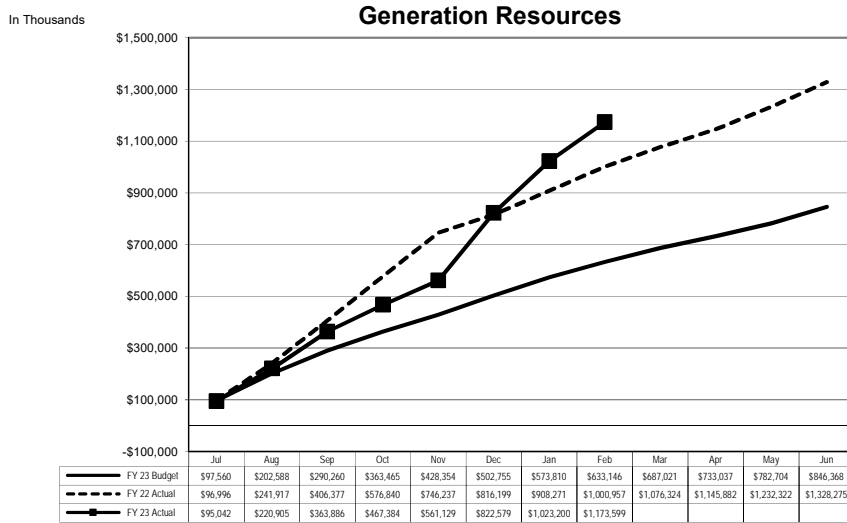
None.

**Annual Budget
2022-2023 Fiscal Year To Date
As of February 28, 2023**

In Thousands	Program			
	Annual Budget	Actual	Under(Ovr) Budget	YTD % Remaining
GENERATION RESOURCES				
NCPA Plants				
Hydroelectric	55,514	42,219	\$ 13,295	24%
Geothermal Plant	41,633	29,384	12,249	29%
Combustion Turbine No. 1	5,602	4,211	1,390	25%
Combustion Turbine No. 2 (STIG)	10,361	6,602	3,759	36%
Lodi Energy Center	137,737	159,569	(21,832)	-16%
	250,847	241,986	8,861	4%
Member Resources - Energy	63,024	61,235	1,789	3%
Member Resources - Natural Gas	2,474	2,255	219	9%
Western Resource	26,100	13,866	12,234	47%
Market Power Purchases	35,533	41,915	(6,382)	-18%
Load Aggregation Costs - ISO	467,469	808,837	(341,368)	-73%
Net GHG Obligations	921	3,505	(2,584)	-281%
	846,368	1,173,599	(327,231)	-39%
TRANSMISSION				
Independent System Operator	168,782	97,091	71,692	42%
MANAGEMENT SERVICES				
Legislative & Regulatory				
Legislative Representation	2,231	1,149	1,082	48%
Regulatory Representation	715	459	256	36%
Western Representation	723	180	543	75%
Customer Programs	615	339	276	45%
	4,284	2,126	2,158	50%
Judicial Action				
Power Management	460	445	15	3%
System Control & Load Dispatch	7,504	4,744	2,760	37%
Forecasting & Prescheduling	3,044	1,827	1,217	40%
Industry Restructuring	438	302	137	31%
Contract Admin, Interconnection Svcs & Ext. Affairs	1,032	592	440	43%
Gas Purchase Program	77	36	41	53%
Market Purchase Project	112	52	60	54%
	12,208	7,553	4,655	38%
Energy Risk Management	150	135	14	10%
Settlements	1,012	419	593	59%
Integrated System Support	405	232	173	43%
Participant Pass Through Costs	1,666	1,039	626	38%
Support Services	-	1,029	(1,029)	
	20,184	12,979	7,205	36%
TOTAL ANNUAL BUDGET COST	1,035,334	1,283,668	(248,334)	-24%
LESS: THIRD PARTY REVENUE				
Plant ISO Energy Sales	193,457	265,470	(72,013)	-37%
Member Resource ISO Energy Sales	49,954	94,791	(44,836)	-90%
Member Owned Generation ISO Energy Sales	118,709	179,158	(60,449)	-51%
Revenue from Customers	-	81,387	(81,387)	
Customer Owned Generation ISO Energy Sales	-	748	(748)	
NCPA Contracts ISO Energy Sales	34,944	49,968	(15,025)	-43%
Western Resource ISO Energy Sales	26,527	10,902	15,625	59%
Load Aggregation Energy Sales	-	130,239	(130,239)	
Ancillary Services Sales	5,514	3,372	2,141	39%
Transmission Sales	110	74	37	33%
Western Credits, Interest & Other Income	43,537	42,754	783	2%
	472,753	858,864	(386,111)	-82%
NET ANNUAL BUDGET COST TO PARTICIPANTS	562,582	424,804	\$ 137,778	24%

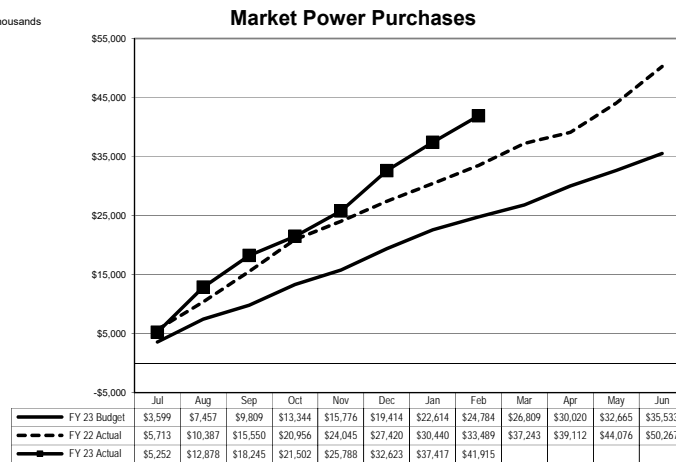
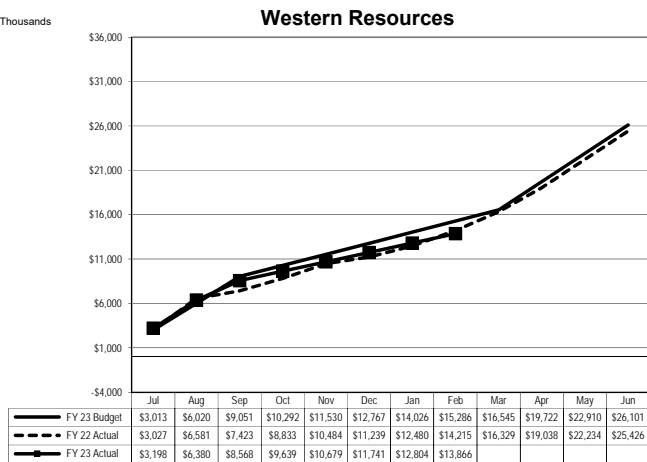
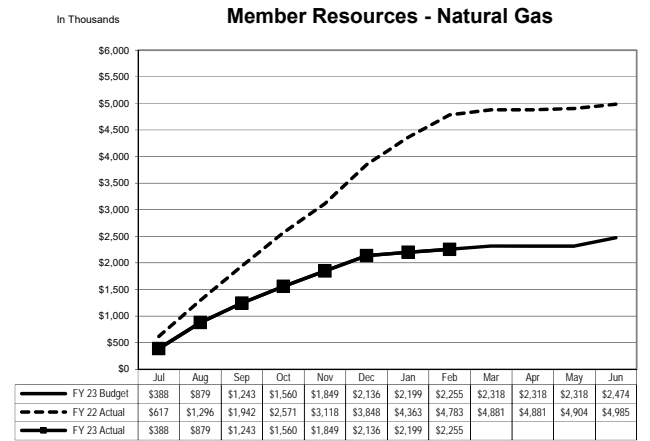
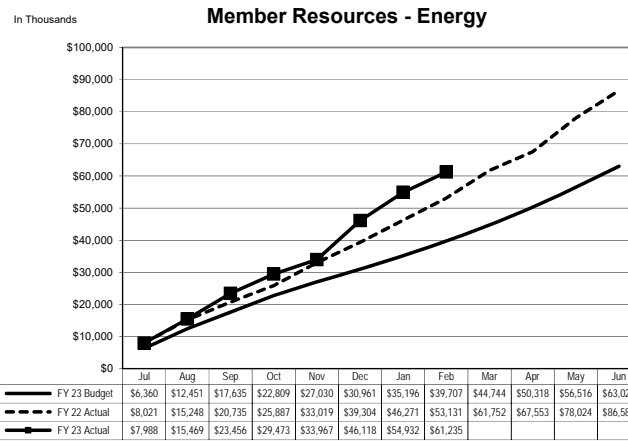
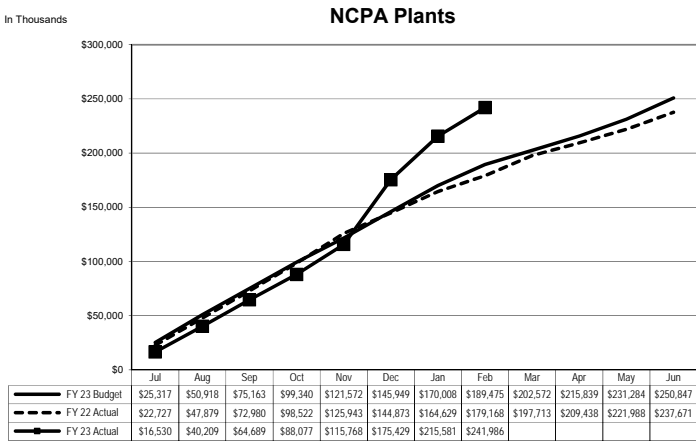


**Annual Budget
Budget vs. Actual By Major Area
As of February 28, 2023**



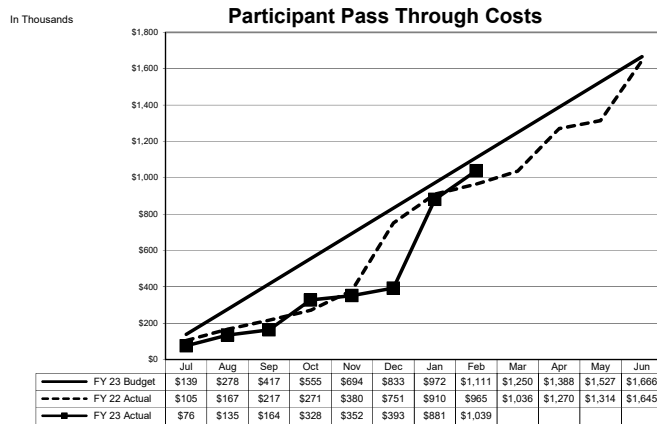
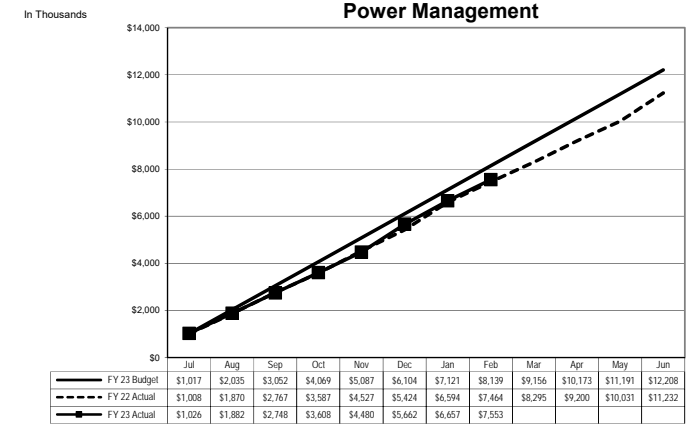
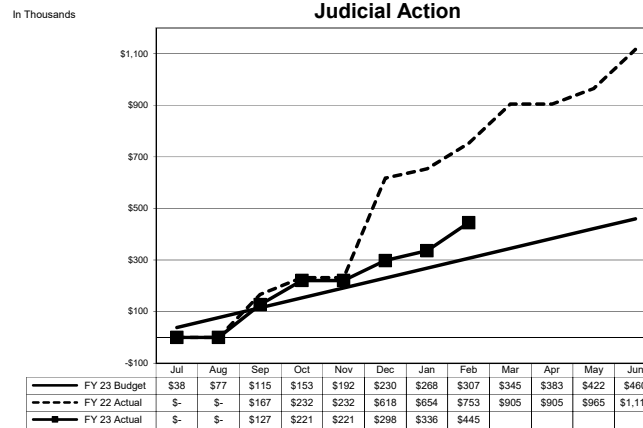
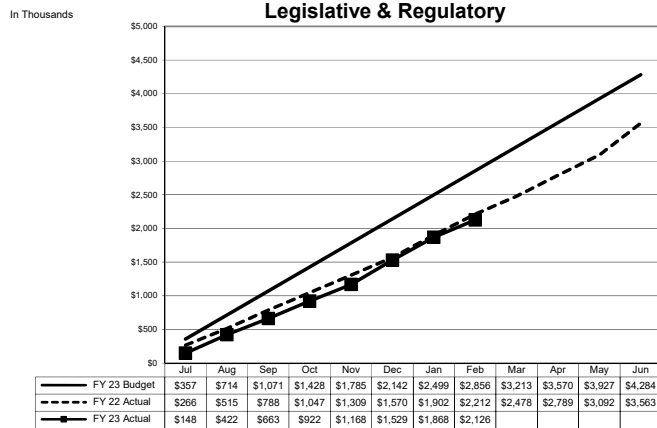
Footnote: Transmission is solely reflective of Independent System Operator (ISO) costs

Annual Budget Cost Generation Resources Analysis By Source As of February 28, 2023



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

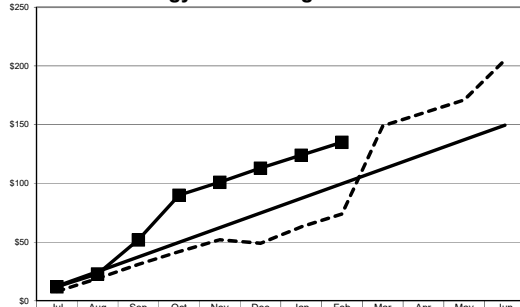
**Annual Budget Cost
Management Services Analysis By Source
As of February 28, 2023**



**Annual Budget Cost
Management Services Analysis By Source
As of February 28, 2023**

In Thousands

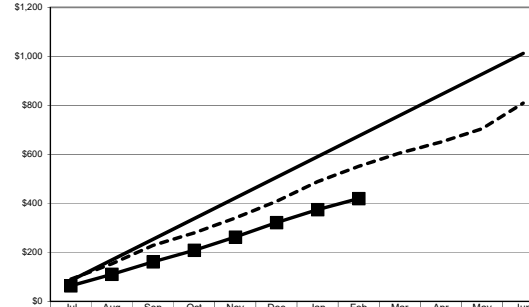
Energy Risk Management



	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				

In Thousands

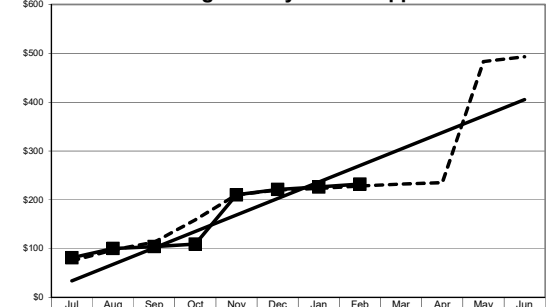
Settlements



	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				

In Thousands

Integrated Systems Support

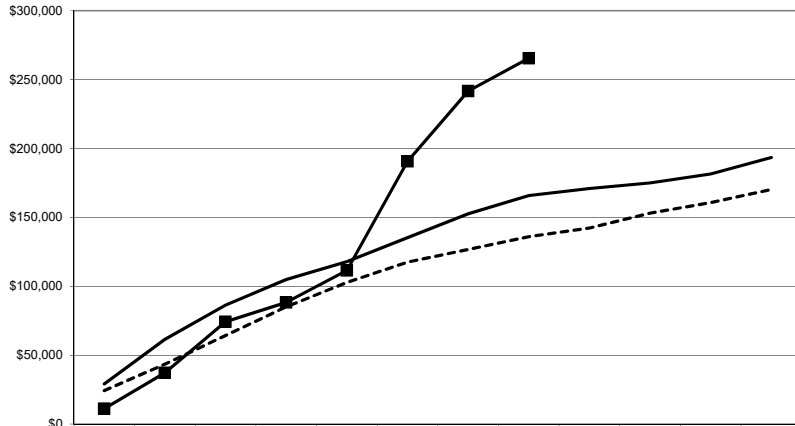


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 23 Budget	\$34	\$68	\$101	\$135	\$169	\$203	\$236	\$270	\$304	\$338	\$371	\$405
FY 22 Actual	\$75	\$97	\$113	\$159	\$210	\$220	\$223	\$228	\$232	\$235	\$483	\$493
FY 23 Actual	\$81	\$100	\$104	\$109	\$210	\$221	\$226	\$232				

**Annual Budget Cost
Third Party Revenue Analysis By Source
As of February 28, 2023**

In Thousands

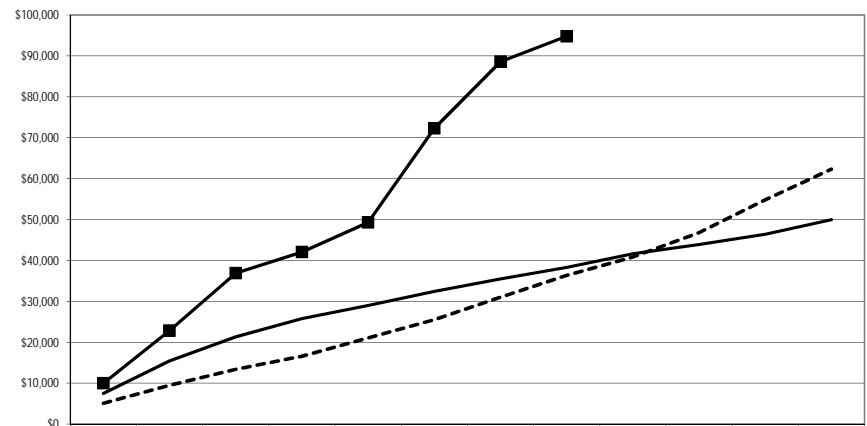
Plant ISO Energy Sales



	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				

In Thousands

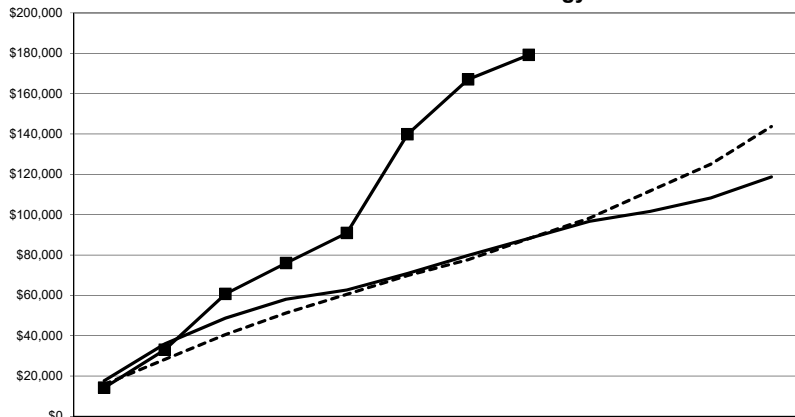
Member Resource ISO Energy Sales



	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				

In Thousands

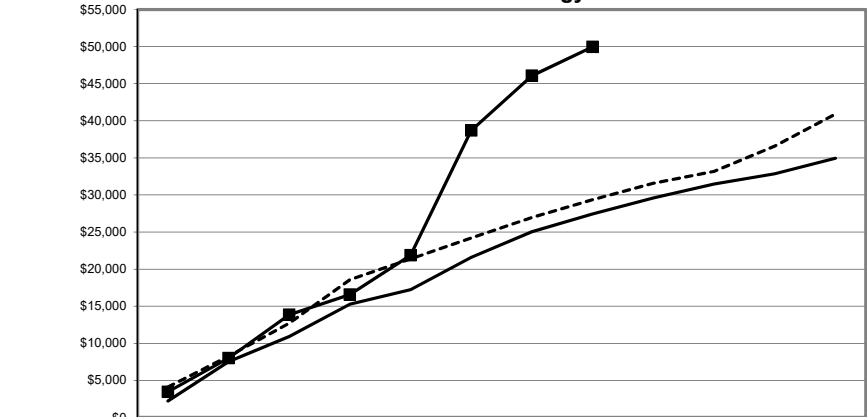
Member Owned Generation ISO Energy Sales



	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				

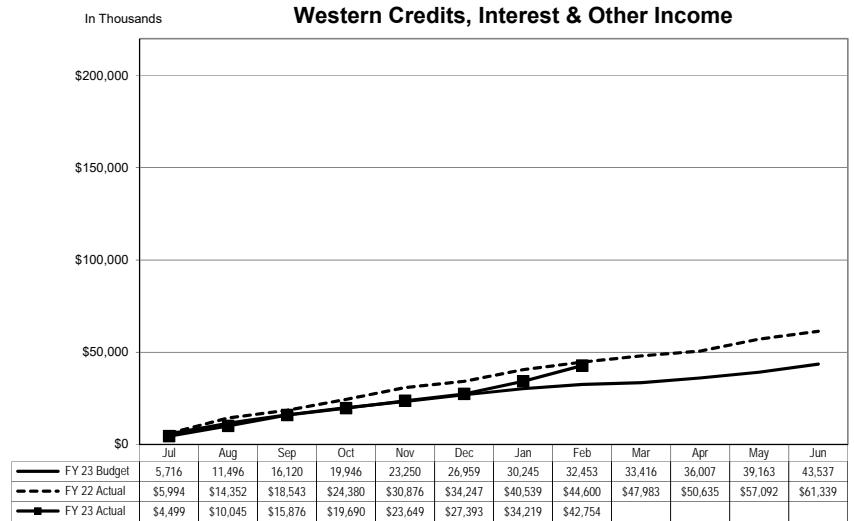
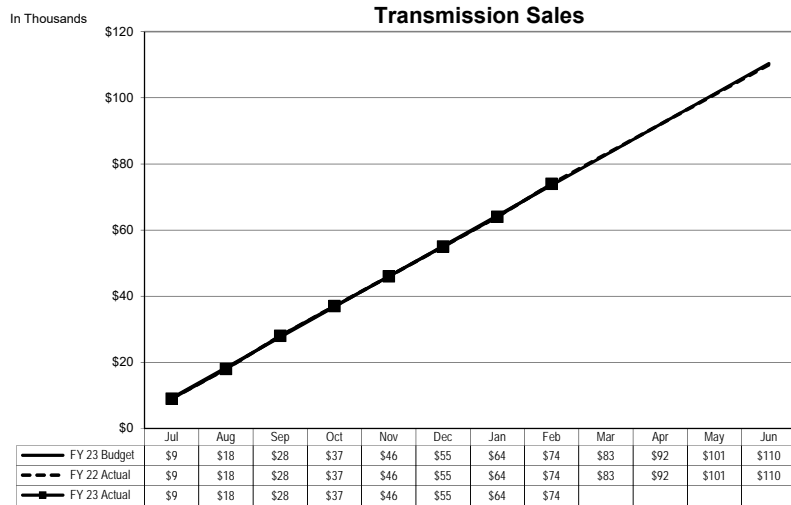
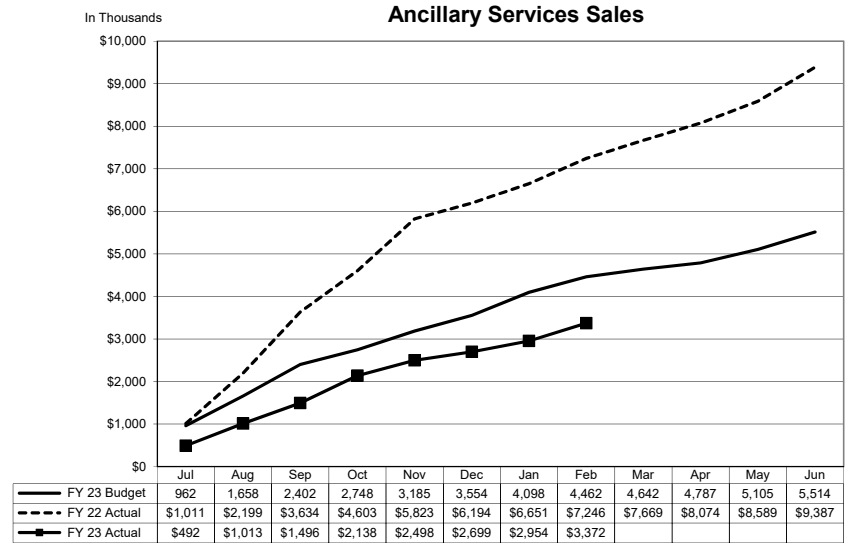
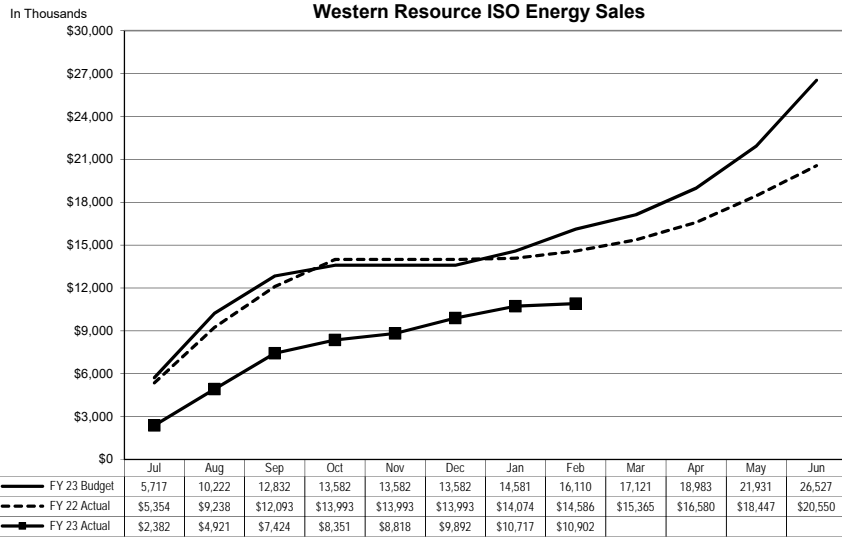
In Thousands

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				

**Annual Budget Cost
Third Party Revenue Analysis By Source
As of February 28, 2023**



**Annual Budget
NCPA Generation Detail Analysis By Plant
As of February 28, 2023**

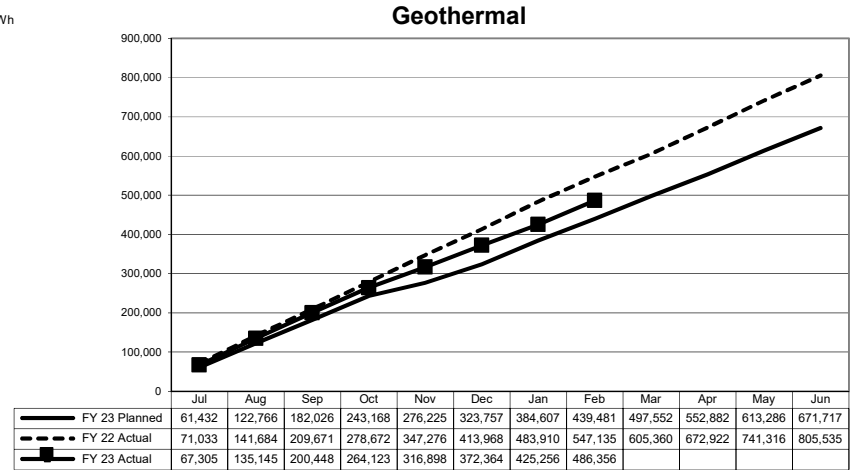
Generation Cost Analysis

\$ in thousands

	Geothermal				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 17,798	\$ 12,967	\$ 26.66	\$ 4,831	27%
Capital Assets/Spare Parts Inventories	7,401	4,479	9.21	2,922	39%
Other Costs	12,357	8,700	17.89	3,657	30%
CA ISO Charges	604	923	1.90	(319)	-53%
Debt Service	3,473	2,316	4.76	1,158	33%
Annual Budget	41,633	29,384	60.42	12,249	29%
Less: Third Party Revenue					
Interest Income	150	173	0.35	(23)	-15%
ISO Energy Sales	42,271	56,588	116.35	(14,317)	-34%
Ancillary Services Sales	-	-	-	-	0%
Effluent Revenues	750	211	0.43	539	72%
Misc	113	75	0.16	37	33%
	43,284	57,048	117.30	(13,764)	-32%
Net Annual Budget Cost to Participants	\$ (1,651)	\$ (27,664)	\$ (56.88)	\$ 26,013	-1575%
Net Generation--MWh @ Meter	671,717	486,356			
\$/MWh (A)	\$ (7.63)	\$ (61.64)			

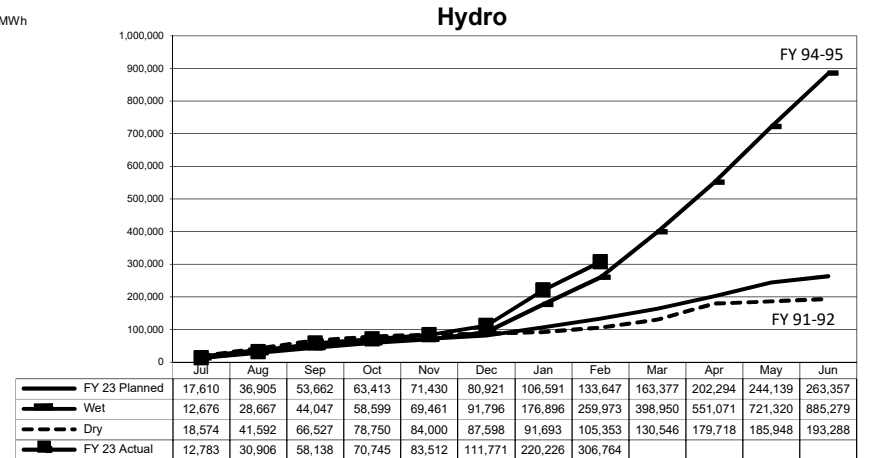
MWhs Generated

In MWh



	Hydroelectric				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 10,203	\$ 5,611	\$ 18.29	\$ 4,592	45%
Capital Assets/Spare Parts Inventories	4,270	3,073	10.02	1,197	28%
Other Costs	3,993	3,305	10.77	688	17%
CA ISO Charges	1,237	6,356	20.72	(5,120)	-414%
Debt Service	35,811	23,874	77.83	11,937	33%
Annual Budget	55,514	42,219	137.63	13,295	24%
Less: Third Party Revenue					
Interest Income	150	117	0.38	33	22%
ISO Energy Sales	22,182	51,345	167.38	(29,163)	-131%
Ancillary Services Sales	1,224	2,890	9.42	(1,667)	-136%
Misc	-	0	0.00	(0)	0%
	23,556	54,353	177.18	(30,797)	-131%
Net Annual Budget Cost to Participants	\$ 31,958	\$ (12,133)	\$ (39.55)	\$ 44,092	
Net Generation--MWh @ Meter	263,357	306,764			
\$/MWh (A)	\$ (14.63)	\$ (117.38)			

In MWh



Footnotes:

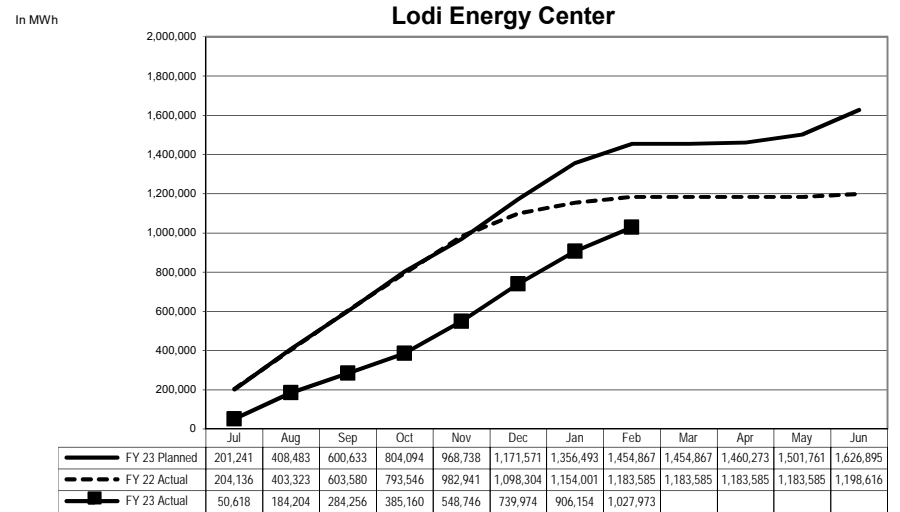
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

**Annual Budget
NCPA Generation Detail Analysis By Plant
As of February 28, 2023**

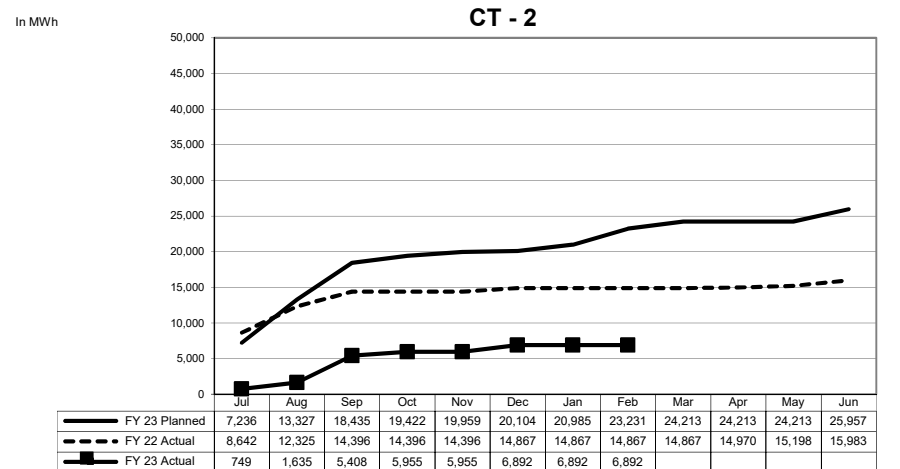
Generation Cost Analysis

	Lodi Energy Center				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 9,826	\$ 6,996	\$ 6.81	\$ 2,830	29%
Fuel	64,819	110,731	107.72	(45,912)	-71%
GHG Allowance Costs	20,250	8,911	8.67	11,339	56%
CA ISO Charges and Energy Purchases	2,970	7,540	7.33	(4,570)	-154%
Capital Assets/Spare Parts Inventories	3,631	1,709	1.66	1,922	53%
Other Costs	10,244	6,351	6.18	3,893	38%
Debt Service	25,996	17,331	16.86	8,665	33%
Annual Budget	137,737	159,569	155.23	(21,832)	-16%
Less: Third Party Revenue					
Interest Income	250	698	0.68	(448)	-179%
ISO Energy Sales	121,620	151,550	147.43	(29,930)	-25%
Ancillary Services Sales	2,318	243	0.24	2,074	90%
Transfer Gas Credit	-	-	-	-	0%
GHG Allowance Credits	19,710	8,911	8.67	10,799	55%
Misc	-	9	0.01	(9)	0%
	143,897	161,411	157.02	(17,515)	-12%
Net Annual Budget Cost to Participants	\$ (6,160)	\$ (1,843)	\$ (1.79)	\$ (4,317)	70%
Net Generation--MWh @ Meter	1,626,895	1,027,973			
\$/MWh (A)	\$ (19.77)	\$ (18.65)			

MWhs Generated



	Combustion Turbine No. 2 (STIG)				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 1,616	\$ 883	\$ 128.09	\$ 733	45%
Fuel and Pipeline Transport Charges	2,227	1,453	210.84	774	35%
GHG Allowance Costs	424	-	-	424	100%
Capital Assets/Spare Parts Inventories	220	9	1.31	211	96%
Other Costs	643	868	125.96	(225)	-35%
CA ISO Charges	148	-	-	148	100%
Debt Service	5,084	3,389	491.79	1,695	33%
Annual Budget	10,361	6,602	957.99	3,759	36%
Less: Third Party Revenue					
Interest Income	42	66	9.59	(24)	-57%
ISO Energy Sales	4,331	2,547	369.53	1,785	41%
Ancillary Service Sales	-	-	-	-	0%
Fuel and Pipeline Transport Credits	1,775	6,520	946.12	(4,745)	-267%
GHG Allowance Credits	424	-	-	424	100%
Misc	-	3	0.37	(3)	0%
	6,572	9,136	1,325.61	(2,564)	-39%
Net Annual Budget Cost to Participants	\$ 3,789	\$ (2,533)	\$ (367.62)	\$ 6,323	167%
Net Generation--MWh @ Meter	25,957	6,892			
\$/MWh (A)	\$ (49.88)	\$ (859.40)			



Footnotes:

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

**Annual Budget
NCPA Generation Detail Analysis By Plant
As of February 28, 2023**

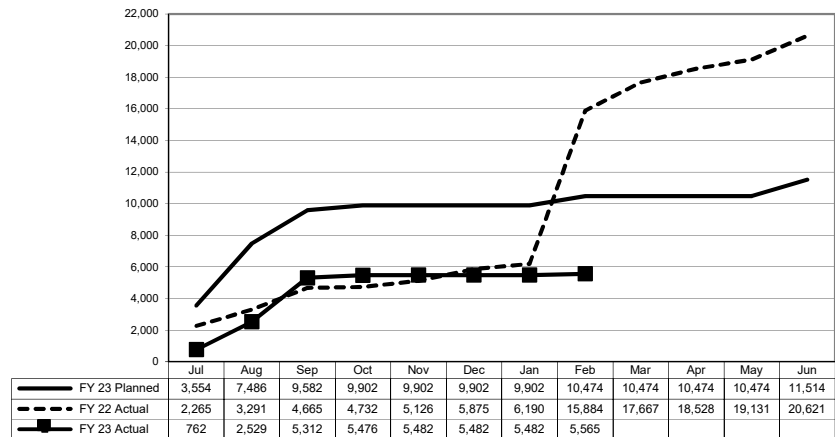
Generation Cost Analysis

	Combustion Turbine No. 1				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 2,530	\$ 1,427	\$ 256.42	\$ 1,103	44%
Fuel and Pipeline Transport Charges	1,214	1,045	187.70	169	14%
Capital Assets/Spare Parts Inventories	800	716	128.75	84	10%
Other Costs	882	621	111.56	261	30%
CA ISO Charges	176	403	72.33	(227)	-129%
Debt Service	-	-	-	-	-
Annual Budget	5,602	4,211	756.76	1,390	25%
Less: Third Party Revenue					
Interest Income	55	44		11	21%
ISO Energy Sales	3,053	3,440	618.13	(387)	-13%
Ancillary Services Sales	-	-	-	-	0%
Misc	-	-	-	-	0%
	3,108	3,484	618.13	(375)	-12%
Net Annual Budget Cost to Participants	\$ 2,493	\$ 728	\$ 130.80	\$ 1,765	71%
Net Generation--MWh @ Meter	11,514	5,565			
\$/MWh (A)	\$ 216.54	\$ 130.80			

MWhs Generated

In MWh

CT - 1



Footnotes:

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