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BUSINESS PROGRESS REPORT

DECEMBER 2021

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Generation Costs & Reliability

Combustion Turbine Project

Unit Operation for October 2021

Unit	Availability		Production		Reason for Run
CT1 Alameda	Unit 1	Unit 2	Unit 1	0.0 MWh	CAISO / CAISO
	0.0%	0.0%	Unit 2	0.0 MWh	
Curtailements, Outages, and Comments:					
Unit 1:	10/01 @ 00:00 - 10/31 @ 23:59; Annual Maintenance Outage, OMS 9128229				
Unit 2:	10/01 @ 00:00 - 10/31 @ 23:59; Annual Maintenance Outage, OMS 9128231				
Unit	Availability		Production		Reason for Run
CT1 Lodi	100.0%		68.1 MWh		CAISO
Curtailements, Outages, and Comments:					
Normal Operation.					
Unit	Availability		Production		Reason for Run
CT2 STIG	100.0%		0.0 MWh		CAISO
Curtailements, Outages, and Comments:					
Normal operation.					
Unit	Availability		Production		Reason for Run
LEC	93.2%		189,958 MWh		CAISO
Curtailements, Outages, and Comments:					
10/23 @ 00:00 - 10/24 @23:59; CT intake air filter replacement; OMS 10884486					

Maintenance Summary – Specific per asset above.

Geothermal Facilities

Availability/Production for October 2021

Unit	Availability	Net Electricity Generated/Water Delivered	Out-of-Service/Descriptors
Unit 1	94.42 %	20,035 MWh	U1 was off line 10/9/21 from 0400 until 10/10/21 2140 for PG&E line outage
Unit 2	94.42 %	*19,447 MWh	U2 was off line 10/9/21 from 0400 until 10/10/21 2134 for PG&E line outage
Unit 3	N/A %	N/A	Unit 3 remains out of service.
Unit 4	100 %	29,518 MWh	U4 had no outages for the month
Southeast Geysers Effluent Pipeline	46% %	87.0 mgallons	Average flow rate: 1,928 gpm
Southeast Solar Plant	N/A	87,797 KWh	Year-to-date KWh: 4,275,938
Bear Canyon Pump Station Zero Solar	N/A	65,766 KWh	Year-to-date KWh: 6,197,336

* Accounts for an additional 792 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

Hydroelectric Project

Availability/Production for October 2021

Units	Availability	Net Electricity Generated	Out-of-Service
Collierville Unit 1	50.36%	14441 MWh	CV Unit 1 – Out of Service on 10/1/21 to 10/16/21 from 0625 to 1541 for Annual Maintenance
Collierville Unit 2	56.95%	6171 MWh	CV Unit 2 – Out of Service on 10/1/21 to 10/3/21 from 0508 to 1935 for Dual Unit maintenance and trash rack cleaning and from 10/18/21 to 10/29/21 from 0727 to 2344 for Annual Maintenance
Spicer Unit 1	56.18%	650 MWh	NSM1- Out of Service on 10/18/21 to 10/19/21 from 0957 to 2359 for PG&E Substation work at Salt Springs
Spicer Unit 2	56.24%	115 MWh	NSM2- Out of Service on 10/18/21 to 10/19/21 from 1022 to 2359 for PG&E Substation work at Salt Springs
Spicer Unit 3	56.24%	92 MWh	NSM3- Out of Service on 10/18/21 to 10/19/21 from 1022 to 2359 for PG&E Substation work at Salt Springs

Operations & Maintenance Activities:

- CMMS work orders
- Alpine Main Dam – Downstream Face Maintenance
- CV Dual Unit Outage and McKays Intake Trash Rack Cleanout
- CV 1 Annual Maintenance
- CV 2 Annual Maintenance
- Union Dam Spillway Repair work
- Constructed Union Dam Seepage Weir Extension, LLO Operator Pedestal Repair, Spillway Repair
- Repaired heavily monitored Alpine Dam downstream gunite crack
- Completed McKays trashrack and apron approach cleaning down to concrete
- Completed McKays Landslide annual survey of all points
- Completed McKays Cleanout environmental permitting kickoff meeting and site visit
- Performed Beaver Creek bathymetry survey
- Completed Security Plans for Project 2409 and 11563
- Hand delivered physical EAPs to all bookholders

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

- There were no vehicle, or Lost Time accidents in the month of October. There was one Cal OSHA recordable incident which occurred at NCPA's Geothermal Plant on October 22nd, 2021. An employee bumped into a pipe rack while standing from a lowered position, startling him and causing him to hyper extend his right knee. The employee was cared for by a doctor and has since returned to work.
- Find below a Safety Report that highlights the following areas: recordable incidents and lost time accidents (LTAs) reported this period and this calendar year; the number of days since last recordable or LTA; the number of work hours since last recordable or LTA; and vehicle accidents reported this month and this calendar year. In September of 2012, Generation Services completed an internal audit of its records with the results reflected in this report and was updated through the payroll period ended October 23, 2021.
- The "CT Group" column reflects the combined safety numbers of all CT employees. Beginning with the November 2009 report, the CT Group Column also includes Lodi Energy Center staff.

October 2021 Generation Services Safety Report

	Hydro	GEO	CT Group *	NCPA HQ **
Cal OSHA Recordable (this month)	0	1	0	0
Cal OSHA Recordable (calendar year)	0	1	0	0
Days since Recordable	377	1	2,392	3,376
Work Hours Since Last Recordable	33,021	215	360,121	2,7398,329
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	0	0	0
Days without LTA	5,126	2,255	10,296	6,389
Work Hours without LTA	465,591	164,425	770,665	2,361,347
Vehicle Incident (month)	0	0	0	0
Vehicle Incident (calendar year)	0	1	0	0

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

** NCPA HQ: Roseville employees at the Main Office

Data originates from OSHA logs, HR records and payroll information.
Days and Hours are calculated through pay period ended October 23, 2021.

Power Management/NCPA Market Results

Dispatch and Schedule Coordination

- NCPA Dispatch and Schedule Coordination Center safely, reliably, and economically schedules, monitors, and manages NCPA and NCPA member power resources and loads 24 hours per day, 7 days per week on a continuous basis. This process includes balancing MSSA loads and resources on a 5-minute basis, optimizing NCPA resources and minimizing ISO costs.
- NCPA MSSA Load Data:

Current Year 2021 Data

	October 2021		Calendar Year 2021	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	331.7 10/1 @ 1800	180,009	440.56 6/17 @ 1700	1,879,472
SVP	562.28 10/4 @ 1600	363,596	591.96 8/27 @ 1500	3,417,213
MSSA	891.99 10/4 @ 1700	543,605	1025.46 6/17 @ 1700	5,296,685

Last Year 2020 Data*

	October 2020		Calendar Year 2020	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	379.27 10/01 @ 1700	190,636	467.45 8/14 @ 1700	1,899,534
SVP	544.52 10/01 @ 1600	338,754	586.3 8/14 @ 1700	3,204,188
MSSA	922.07 10/01 @ 1700	529,390	1053.75 8/14 @ 1700	5,103,722

* Last year's data added for comparison purposes only

System Peak Data

	All Time Peak Demand	2021 Peak Demand
NCPA Pool	517.83 MW on 7/24/06 @ 1500	440.56 6/17 @ 1700
SVP	591.96 MW on 8/27/21 @ 1500	591.96 8/27 @ 1500
MSSA	1070.79 MW on 9/1/17 @ 1700	1025.46 6/17 @ 1700

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

NCPA Deviation Band Performance		
	October 2021	Calendar Year 2021
MSSA % Within the Band	95.12%	97.84%

- PG&E Public Safety Power Shutoff (PSPS) events:
 - October 11-12, 2021. No NCPA members or facilities were affected.
 - October 14-16, 2021. No NCPA members or facilities were affected.

Pooling, Portfolio Planning & Forecasting

- NCPA Pool load during October 2021 was 180,010 MWh versus the budget forecast of 183,440 MWh, resulting in a forecast error of 1.91%. The forecast error was small as the Pool's actual temperatures were close to average during the month. The current weather outlook for November 2021 is for normal temperatures for the Bay Area and the inland Valley. The Pool November load forecast is 177,331 MWh compared with extrapolated actuals of 174,404 MWh as of November 17, 2021.
- Lodi Energy Center (LEC) ran 694 hours out of a possible 744 producing 189,966 MWh. Natural gas and power prices are significantly higher than a year ago due to the low reservoir levels throughout the state. November margins are expected to be fall as power prices soften during the shoulder month. Winter gas-fired generation will likely be strong unless California gets significant rainfall.
- During October 2021, 7.98" of rain was recorded at the Big Trees gauge. October average rainfall at Big Trees is 2.98". During October 2021 there was one substantial storm that increase flows at Big Trees enough to cause spill at McKay's forebay. The storm was not enough to substantially change storage at New Spicer Meadows or other reservoirs in California.
- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) has remained at \$300/MWh. Releases from NSMR are just enough to maintain the November 1st winter minimum Big Trees flows of 100 CFS.
- New Spicer Meadows storage as of October 31, 2021 was 60,398 acre feet. The historical average storage at the end of October is 91,205, acre feet. As of November 17th storage was 62,864 acre feet.
- Combined Calaveras Project generation for the Pool in October 2021 totaled 10,606 MWh, up from 7,682 MWh in September 2021. The Pool's 10,608 MWh in October 2021 was substantially higher than its revised forecast of 5,402 MWh due to the late October storm.
- Western Base Resource (BR) deliveries for the Pool during October 2021 were 25,720 MWh. Displacement program energy totaled 272 MWh. The Pool's share of expected total delivery from the Western Base Resource for November 2021 is zero MWh.
- The PG&E Citygate gas index averaged \$6.93 / MMBtu during the month of October as compared to an average of \$6.64 for September. November's current average price is \$6.19. Both NYMEX gas and basis prices fell due to less generation needed for cooling and heating during the shoulder month. Prices will remain high for the winter of 2021. The December 2021 PG&E Citygate forward price is \$6.25 / MMBtu.

- Day-Ahead PG&E DLAP electricity prices for October averaged \$71.37 / MWh On-Peak and \$61.84 Off-Peak, with a high of \$145.75. For the dates of November 1st through 17th, 2021 prices have averaged \$66.13 On-Peak and \$56.60 Off-Peak. The forward prices for December are \$79.96 On-Peak and \$72.64 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 periods of Calendar Year 2022 and January 2022:
 - Annual System Resource Adequacy Demonstration (filed October 30, 2021)
 - Annual Supply Plan (filed October 30, 2021)
 - Monthly System Resource Adequacy Demonstration (filed November 17, 2021)
 - Monthly Supply Plan (filed November 17, 2021)

Industry Restructuring

NCPA is actively participating in a number of CAISO stakeholder initiatives on behalf of the members. The following is a brief description of key active initiatives:

Extended Day-Ahead Market

- CAISO held a Foundational Workshop on November 12, 2021 where staff provided a high level overview of EDAM, common EDAM design principles, EDAM initiative scope topics, described the stakeholder working groups/structure, reviewed the EDAM market design timeline, and took questions and comments in an open forum.
 - EDAM is a voluntary expansion of CAISO's real-time Western Energy Imbalance Market into the Day Ahead timeframe. EDAM is not equivalent to becoming a full member of CAISO or any other RTO. Transmission control, planning, and cost allocation remains with the member entity and it is unlikely that EDAM will result in a single, unified transmission rate across the EDAM footprint. Resource Adequacy and Resource Planning will continue to remain with member entities and their respective regulating authorities. EDAM is not intended to result in any changes to state regulatory authority. EDAM benefits include potential production cost savings through more efficient day-ahead hourly trading, day-ahead unit commitment, use of transmission across larger footprint, more cost-effective day ahead solution serving load with increased load and generation diversity, and lastly potential environmental benefits.
 - Common design principles/scope are voluntary participation requires minimum commitment, maximize the amount of transmission made available to EDAM, while respecting the existing OATT framework and contractual commitments, provide certainty to the EDAM market participants as to the amount of participating load and resources, utilize congestion rent allocation between balancing authority areas to hold transmission customers harmless without creating new uplifts, congestion rent allocation distribution to LSEs and transmission customers in an equitable and implementable manner, achieve high level of confidence in EDAM transfers by considering them as firm transfers serving load, account for GHG costs of EDAM transfers

- equitably, stay consistent with state policies of different participating entities, and consider price formation concepts.
- Three public working groups will cover Supply Commitment & Resource Sufficiency Evaluation, Transmission Commitment & Congestion Rent Allocation, GHG Accounting and Costs. CAISO will publish meeting minutes. Working group deliverables to be determined. Working group deliverables will be used to craft straw proposals.
 - EDAM policy will be developed in 2022, implemented in 2023, and will become open for participating in 2024.

Resource Adequacy Enhancements

- CAISO delayed further work on RA Enhancements until 2022 in order to align bid insertion, must offer obligation, and flexible RA proposals with DAME and EDAM.

Day-Ahead Market Enhancements

- CAISO resuming initiative with November 30, 2021 day-ahead market overview session and Q4 2021 stakeholder working group.

Transmission Access Charge Structure Enhancements

- CAISO classified TACSE as a “Discretionary Initiative” in the latest Policy Roadmap and Annual Plan with no estimated implementation date.
- Initiative is currently on hold pending developments from EDAM initiative.
- This initiative considers changes to the CAISO’s current volumetric Transmission Access Charge (TAC) structure for recovering participating transmission owners’ costs of owning, operating and maintaining transmission facilities under CAISO operational control. The CAISO will consider stakeholder input on the initiative scope, which will include possible changes to reflect the benefits of distributed resources in reducing future transmission needs.
- CAISO’s draft final proposal includes a hybrid billing determinant consisting of volumetric and peak demand functions at an approximately 50/50 split in order to address costs shifts as well as the full impact of high coincident peak demand, low load factor UCD areas that have relatively lower volumetric use compared to high load factor areas. It received general support from the market and will be presented to the CAISO Board in 2021 and will be implemented at a to be determined point thereafter. The CAISO is working to align the TAC Board consideration with the Extended Day-Ahead Market (EDAM) process so they are aligned to the extent possible. The TAC proposal may possibly need to be updated if the EDAM proposal aspects related to transmission issues drive changes to the TAC initiative.
- NCPA performed an impact analysis and determined that NCPA Members would mostly benefit or be indifferent to the new billing determinant so long as certain LFMSS benefits remain in place.

Western

Western Base Resource Tracking (NCPA Pool)

Western Base Resource Tracking - NCPA Pool							
	Actual			Costs & Rates			
	BR Forecast 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-21	90,622	64,857	(25,765)	\$1,943,287	\$ 29.96	\$ 0.50	\$ 48.51
Aug-21	67,967	54,903	(13,064)	\$1,943,287	\$ 35.39	\$ (0.06)	\$ 49.58
Sep-21	28,320	34,068	5,748	\$1,849,800	\$ 54.30	\$ (0.13)	\$ 50.66
Oct-21	22,710	25,992	3,282	\$759,202	\$ 29.21	\$ 0.59	\$ 49.01
Nov-21	8,712	-	0	\$759,202	\$ 87.14	\$ -	\$ 49.25
Dec-21	7,036	-	0	\$759,202	\$ 107.90	\$ -	\$ 49.83
Jan-22	5,620	-	0	\$759,202	\$ 135.09	\$ -	\$ 49.60
Feb-22	14,806	-	0	\$759,202	\$ 51.28	\$ -	\$ 47.41
Mar-22	21,003	-	0	\$759,202	\$ 36.15	\$ -	\$ 46.37
Apr-22	55,270	-	0	\$1,735,370	\$ 31.40	\$ -	\$ 42.52
May-22	90,965	-	0	\$1,735,370	\$ 19.08	\$ -	\$ 36.56
Jun-22	86,068	-	0	\$1,735,370	\$ 20.16	\$ -	\$ 33.73
1/ As forecasted in NCPA 21/22 Budget 2/ = (Western Cost + Restoration Fund)/BR Delivered, for Pool Participants only. 3/ = (MEEA LMP - PG&E LAP LMP) using public market information (i.e. not settlement quality). 4/ Based on BR Delivered (Actual) when available and BR Forecast in all other cases. Includes CAISO LMP impact.							

- NCPA Pool received 25,992 MWh of Base Resource (BR) energy in October 2021. This includes Base Resource displacement energy of 272 MWh.
- Pool Members' total savings under Market Efficiency Enhancement Agreement (MEEA) was approximately \$15,300 in October 2021. The cumulative MEEA savings for FY2022 is approximately \$40,840 for July 2021 through October 2021.

Interconnection Affairs

PG&E Update

TO-18 Rate Case

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

- TO-19, which was settled at a TRR of 98.85% of TO-18 will be effective for a 14-month period from March 1, 2018 – April 30, 2019.
- FERC denied all PG&E request for rehearing on non-ROE issues and directed further briefing on ROE. PG&E has appealed and NCPA has intervened in that appeal. Paper hearing on ROE awaiting FERC order. Appeal of non-ROE issues pending in DC Circuit Court.
- NCPA has requested more information on legal fees PG&E has spent to date on rate cases. PG&E objected to answer legal fee questions and held back on answering questions during a meet and confer meeting on Sept 20th. CPUC and NCPA will discuss next steps.

Permanent Inter-Tie Switch Between Geo Plants 1 and 2

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

Cotenancy Agreement

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

PG&E RY2022 Formula Rate Annual Update

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

- July 1 – Utility posts proposed cost for the next calendar year
- July 1 – Oct 15 – Customers examine new costs and issue discovery

- August 15 – Sept 1 – Technical Conference
- November 1 – Last changes to Annual Update
- December 1 – Utility submits to FERC
- January 1 – New revenue requirement becomes effective

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

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

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

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

Next Steps:

- TANC is now engaged in the 2022 TRR review process to negotiate with PG&E over amounts found to be excessive or unsupported

STAR Process

To date, NCPA has identified eleven (11) projects totaling \$56.1M in estimated completion cost that are related to non-ISO controlled lines. PG&E has acknowledged the project's cost recovery does not belong in the transmission rate base and should be part of the CPUC's General Rate Case. NCPA will monitor for the removal of projects and costs in future transmission rate cases.

Debt and Financial Management

- At the November 3rd meeting, the Fed held its current target interest rate at 0% to 0.25% but those days are numbered. The Fed announced that it intends to begin paring back its bond purchases, in a process known as tapering. The taper news is hardly a surprise since it's been months in the making and comes at a time when inflation has risen much higher (and longer) than Fed officials estimated earlier in 2021. The Fed said it will likely begin reducing its monthly bond purchases as soon as November and signaled interest rate increases may follow more quickly than expected as the U.S. central bank's turn from pandemic crisis policies gains momentum.
- US consumer prices rose last month at the fastest annual pace since 1990, cementing high inflation as a hallmark of the pandemic recovery and eroding spending power even as wages surge. The index increased 6.2% from October 2020. Higher prices for energy,

shelter, food, and vehicles fueled the increase and indicated inflation is broadening out beyond categories associated with the reopening.

- At the November Finance Committee meeting, staff recommended selecting Citigroup as the lead Underwriter assisting the Agency refunding the 2012A Hydroelectric bonds. Over the next few months, staff will begin reviewing and updating the associated bond documents that will be presented for approval in February 2022.

Schedule Coordination Goals

Software Development

- Applications and Enhancements under development
 - Integration team working on integrating the South Feather Water and Power Agency resources in preparation for a 12/19/2021 Go Live.
 - Development of the Renewable Portfolio Standards application continues and data validation is being performed. Rollout delayed pending completion of other higher priority projects
 - IS team deploying apps in the test environment to test the Oracle 2019 database and testing is on-going
- Customer and Resource Integration
 - EBCE's Henrietta D Battery Storage on-going integration and slated for operations on January 1, 2022. For this first ever Non-Generator Resource for NCPA, testing is on-going in the Market Simulation environment.
 - BART's Slate Solar resource scheduling successfully implemented in production for its 11/12/2021 COD.
- New Chromium-based Deal Manager app released in the production

Network

- SCADA and Networking team continue to work with a variety of customers in an effort to integrate several new wind, solar and hydro resources,
 - Sky River Wind – telecommunication and WAN connectivity has been installed and tested. Initial point testing was completed successfully, however curtailment logic requires some changes from NextEra. Will schedule a follow-up point test.
 - Henrietta D –SCADA communications have been established to the site and point testing is successfully completed. Working to standup a new PI Web API server for scheduling optimization.
 - South Feather Water and Power – NCPA Information Services staff has largely completed integration activities associated with network and data communications as well as the mapping and importation of the necessary electronic field devices to be integrated into NCPA's SCADA (Supervisory Control and Data Acquisition) system. NCPA IS staff will next be working with SFWPA operations staff to perform SCADA system point mappings.
- Operations and Support continues to review the RFP for Enterprise VOIP system and has narrowed selections down to a few vendor solutions. HQ and staff from each of the NCPA generation plants continue to evaluate a solution that meets the Agency's needs.
- Operations and Support successfully performed a Hard Failover to the Disaster Recovery Center (DRC) on October 15 – 17 as part of a planned electrical shutdown at HQ to energize the new main electrical panel to NCPA's new EV charging station. Dispatch and Scheduling staff worked from the DRC over the weekend while Information Services staff performed server maintenance and various updates to the Network Operations Center.

- Oracle 2019 is currently being tested with the anticipation of it replacing the current Oracle 11 and 12 versions in production. Application testing has started and staff is preparing for a full upgrade in early 2022.

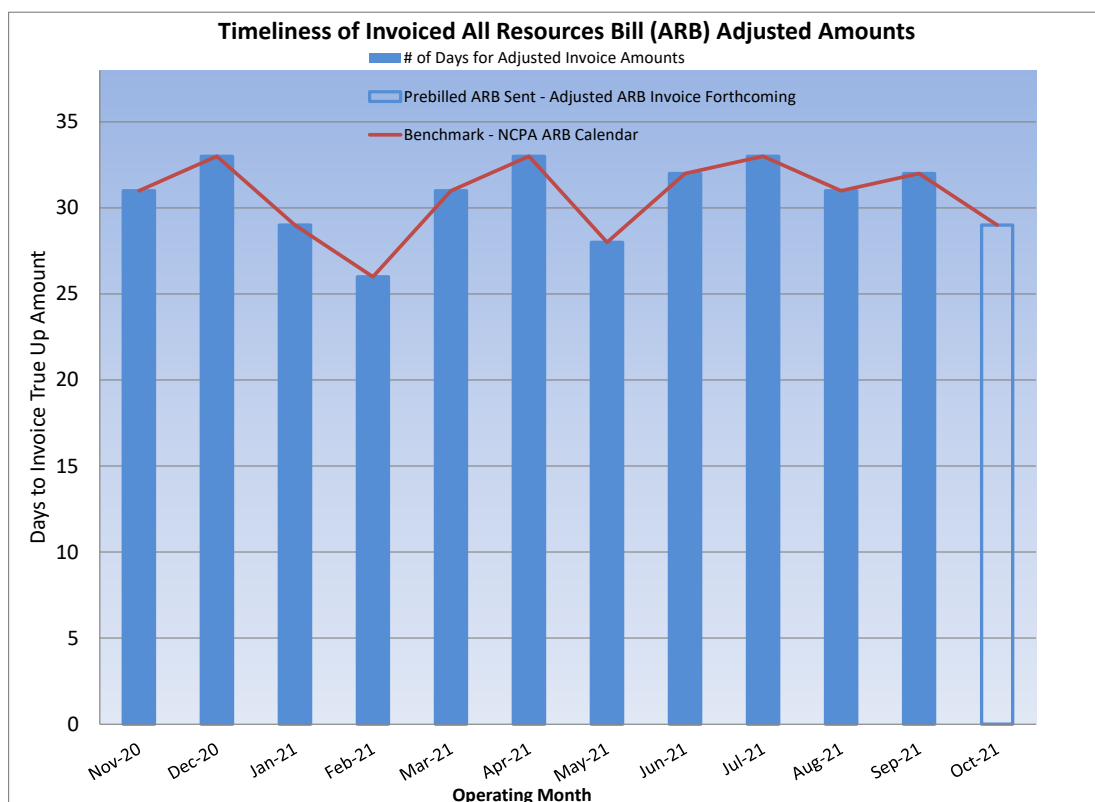
NCPA Bills & Settlements

Progress Against the Strategic Plan

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

The October 2021 NCPA All Resources Bill (ARB) monthly invoice sent to members on September 25, 2021 contains:

- October 2021 monthly pre-billed budget/forecast amounts;
- August 2021 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;
- July 2021 (2nd Adjustment) NCPA Project settlement true-up and T+12 business day recalculated CAISO settlement true-up allocations;
- May 2021 (3rd Adjustment) T+55 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;
- November 2020 (4th Adjustment) T+9 month recalculated CAISO settlement true-up allocations;
- January 2020 (5th Adjustment) T+18 month recalculated CAISO settlement true-up allocations;
- October 2018 (6th Adjustment) T+33 month recalculated CAISO settlement true-up;
- July 2018 (7th Adjustment) T+36 month CAISO settlement true-up;



Legislative & Regulatory

Federal Legislative Update

- Last month, a small contingent of NCPA members and staff flew to Washington, DC, to hold a total of 20 meetings both in person and virtually with congressional and executive branch staff in lieu of the cancellation of the NCPA/NWPPA Federal Policy Conference that was rescheduled for October 2021 due to COVID-19 concerns. The group met with industry trade associations, federal agencies, and members of our congressional delegation to discuss our key priorities impacting our members such as climate change and wildfires, Central Valley Project hydropower, and NCPA's green hydrogen future. NCPA looks forward to the upcoming FPC in Washington, DC, in April 2022.

Customer Program Update

- In anticipation of new federal and state funding opportunities in areas such as transportation electrification, wildfire mitigation, hydrogen, and climate adaptation/resilience, NCPA released a Request for Proposal (RFP) on September 28, 2021 for grant writing assistance services. The resulting contract(s) will be available to NCPA and Members for funding needs analysis, grant funding research, grant proposal development, and consultation. Evaluation of the responses received is currently underway, and agreements are expected by January 2022.

Human Resources

Hires:

Wyatt O'Brien joined the Agency's Geothermal Operations Team as an Operator Technician III on October 25, 2021. Wyatt joins us from Calpine where he has been an Operator II since 2017. While Wyatt was at Calpine, he was responsible for the day to day operations of three power plants. Wyatt brings over seven years of power plant operations and maintenance experience.

Intern Hires:

None.

Promotions:

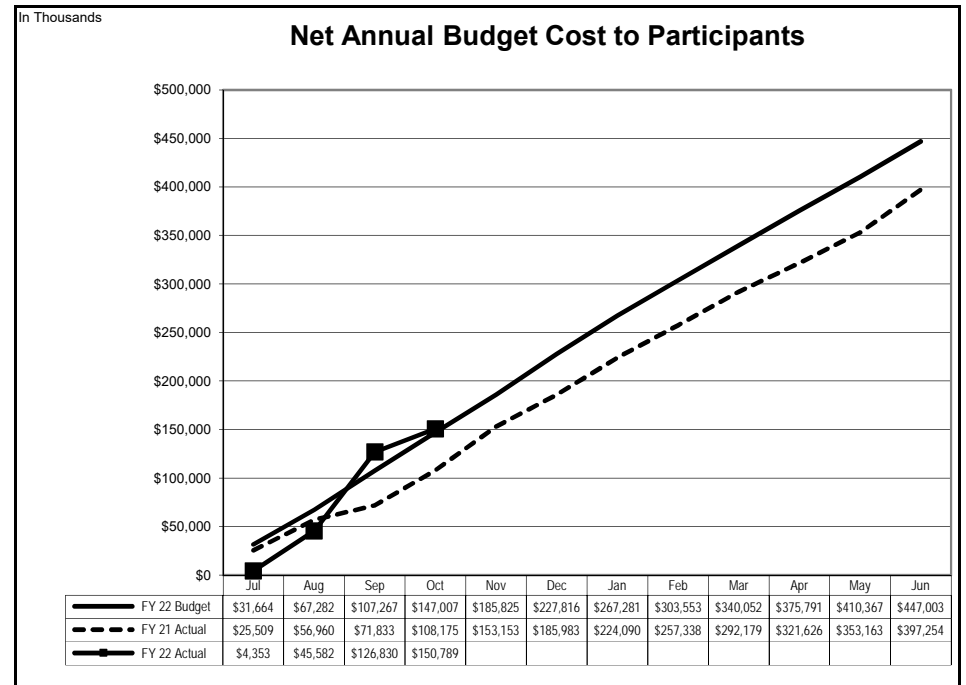
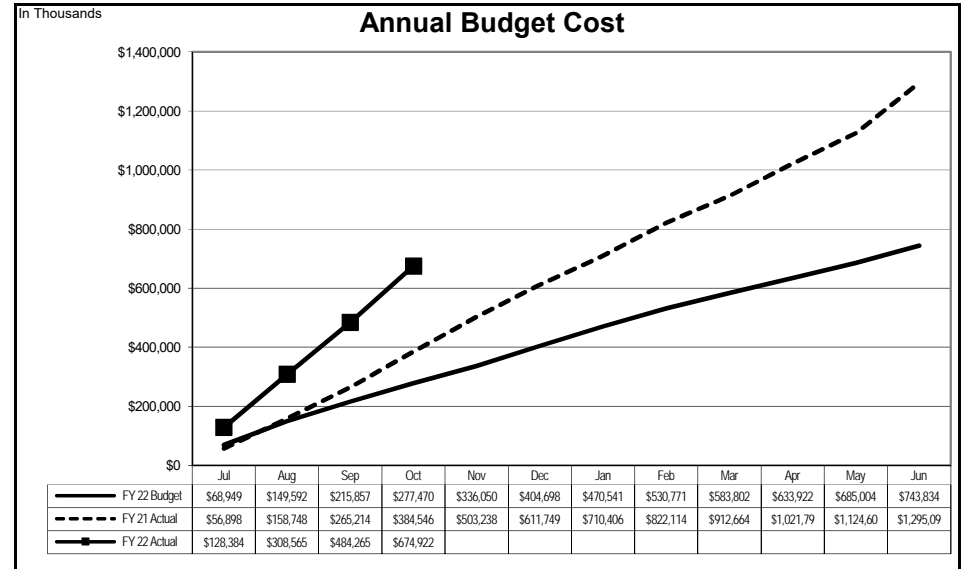
None.

Separations:

None.

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

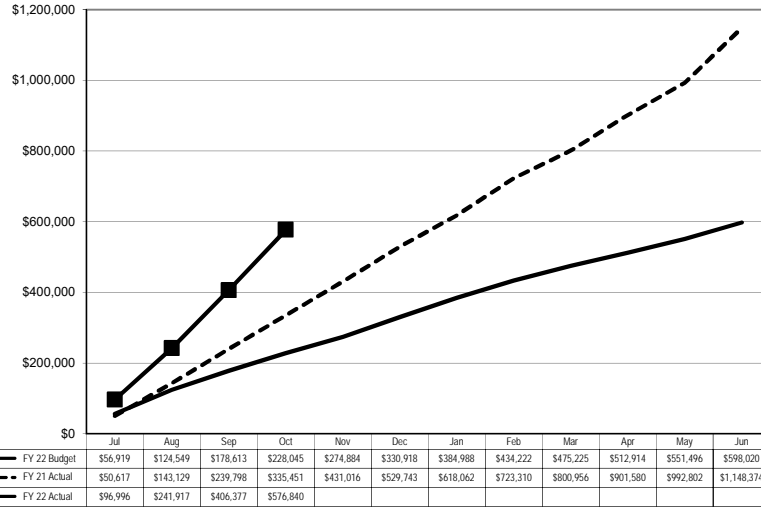
In Thousands	Program			
	Annual Budget	Actual	Under(Ovr) Budget	YTD % Remaining
GENERATION RESOURCES				
NCPA Plants				
Hydroelectric	54,081	18,987	\$ 35,095	65%
Geothermal Plant	40,662	13,485	27,177	67%
Combustion Turbine No. 1	7,055	2,860	4,195	59%
Combustion Turbine No. 2 (STIG)	8,962	3,627	5,336	60%
Lodi Energy Center	88,813	59,564	29,249	33%
	199,574	98,522	101,052	51%
Member Resources - Energy	67,417	25,887	41,530	62%
Member Resources - Natural Gas	2,981	2,571	411	14%
Western Resource	27,302	8,833	18,469	68%
Market Power Purchases	17,225	20,956	(3,731)	-22%
Load Aggregation Costs - ISO	282,244	419,466	(137,222)	-49%
Net GHG Obligations	1,277	606	671	
	598,020	576,840	21,179	4%
TRANSMISSION				
Independent System Operator	126,573	91,836	34,737	27%
MANAGEMENT SERVICES				
Legislative & Regulatory				
Legislative Representation	2,101	532	1,570	75%
Regulatory Representation	634	207	427	67%
Western Representation	694	176	518	75%
Customer Programs	481	131	350	73%
	3,911	1,047	2,864	73%
Judicial Action				
Power Management	300	232	68	23%
System Control & Load Dispatch	7,427	2,198	5,230	70%
Forecasting & Prescheduling	2,811	884	1,927	69%
Industry Restructuring	423	135	288	68%
Contract Admin, Interconnection Svcs & Ext. Affairs	975	323	651	67%
Gas Purchase Program	81	19	62	77%
Market Purchase Project	116	28	87	75%
	11,833	3,587	8,246	70%
Energy Risk Management				
Settlements	198	42	157	79%
Integrated System Support	975	279	696	71%
Participant Pass Through Costs	307	159	148	48%
Support Services	1,718	271	1,447	84%
	-	628	(628)	
	19,242	6,246	12,996	68%
TOTAL ANNUAL BUDGET COST	743,834	674,922	68,912	9%
LESS: THIRD PARTY REVENUE				
Plant ISO Energy Sales	101,640	85,028	16,612	16%
Member Resource ISO Energy Sales	34,353	16,569	17,784	52%
Member Owned Generation ISO Energy Sales	83,030	51,237	31,794	38%
Revenue from Customers	-	93,582	(93,582)	
Customer Owned Generation ISO Energy Sales	-	1	(1)	
NCPA Contracts ISO Energy Sales	12,615	18,566	(5,952)	-47%
Western Resource ISO Energy Sales	19,297	13,993	5,303	27%
Load Aggregation Energy Sales	-	216,138	(216,138)	
Ancillary Services Sales	4,317	4,603	(286)	-7%
Transmission Sales	110	37	74	67%
Western Credits, Interest & Other Income	41,469	24,380	17,089	41%
	296,831	524,133	(227,303)	-77%
NET ANNUAL BUDGET COST TO PARTICIPANTS	447,003	150,789	\$ 296,215	66%



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

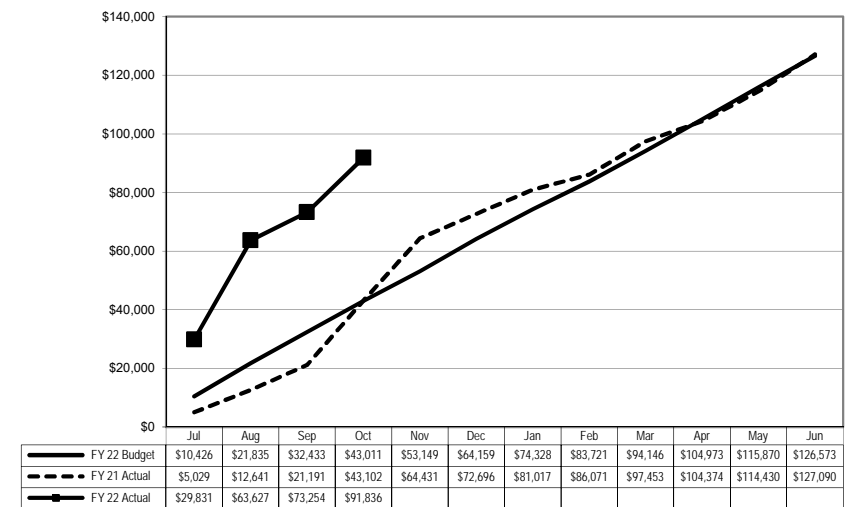
In Thousands

Generation Resources



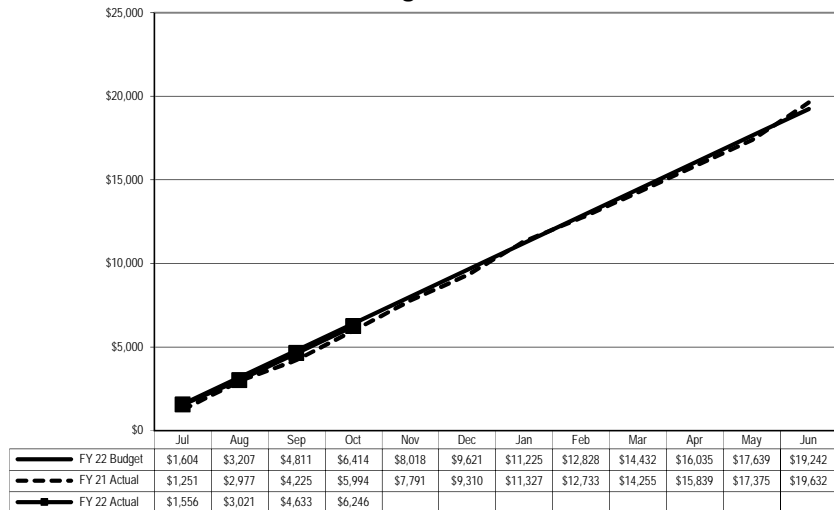
In Thousands

Transmission-ISO



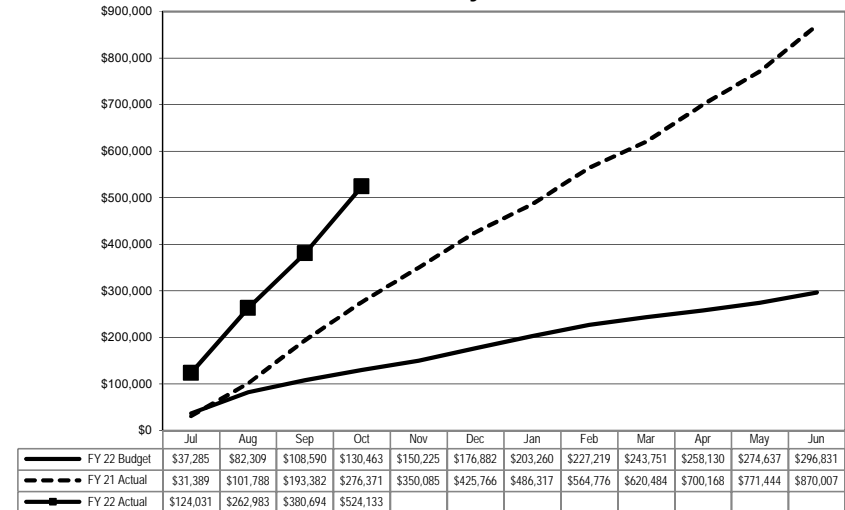
In Thousands

Management Services



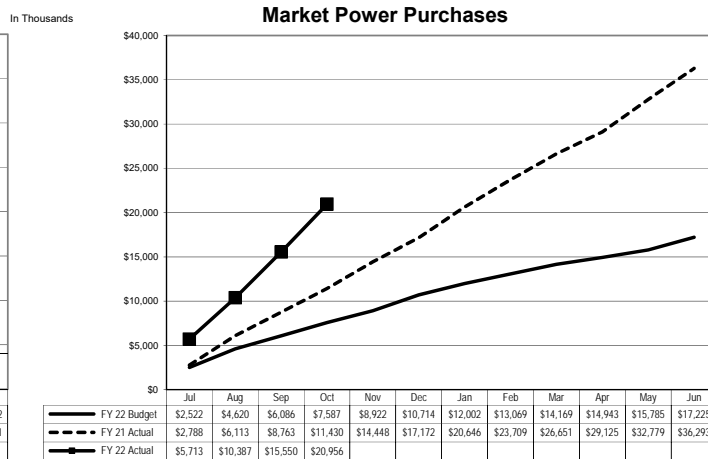
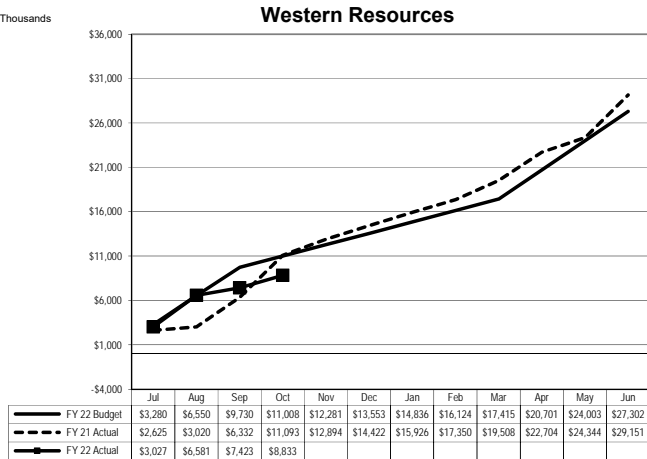
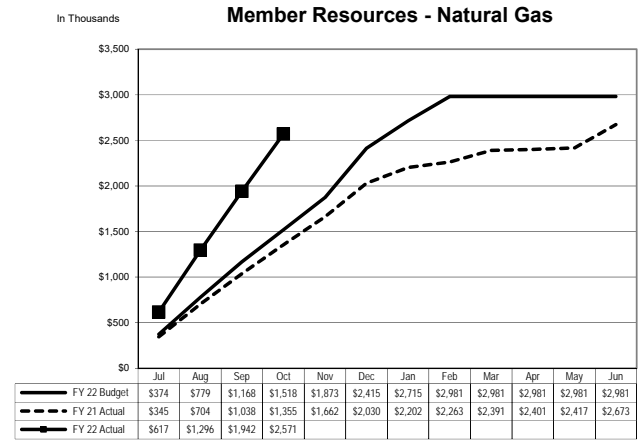
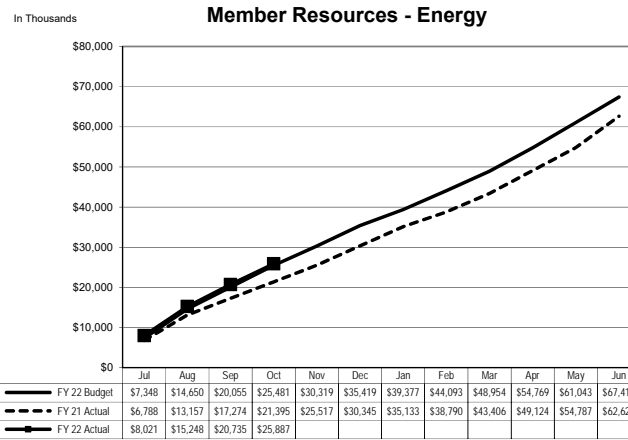
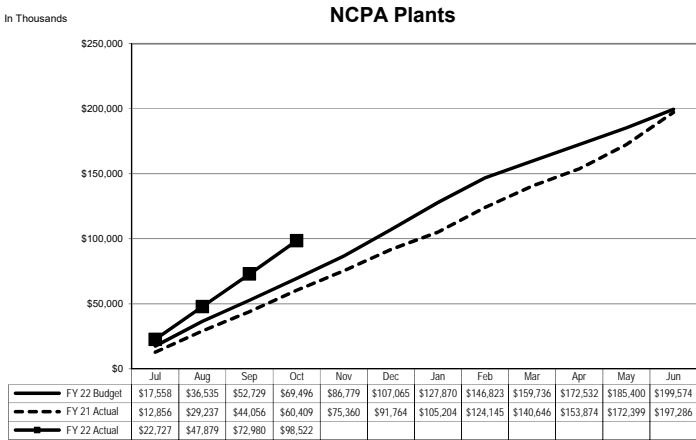
In Thousands

Third Party Revenue



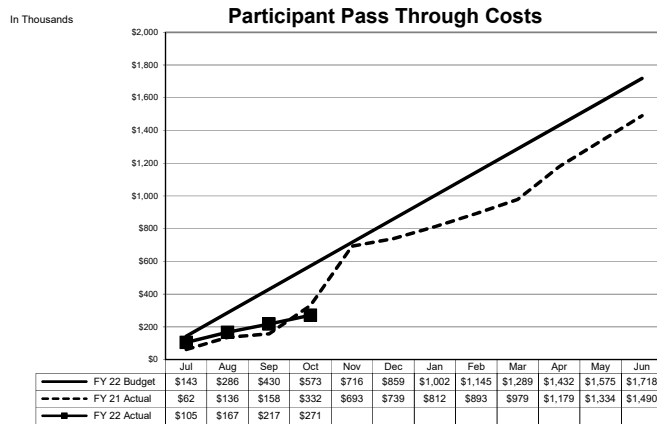
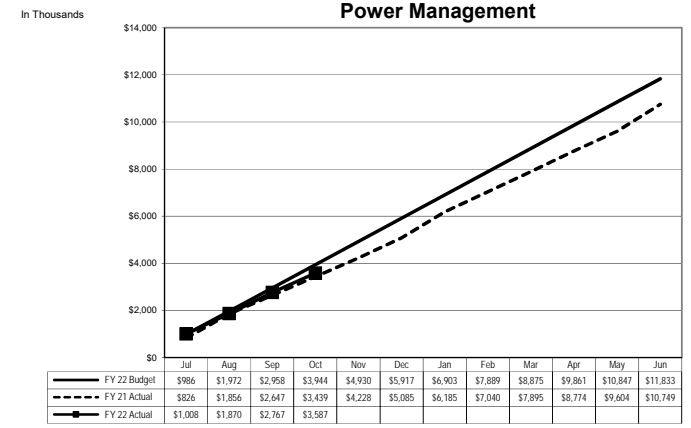
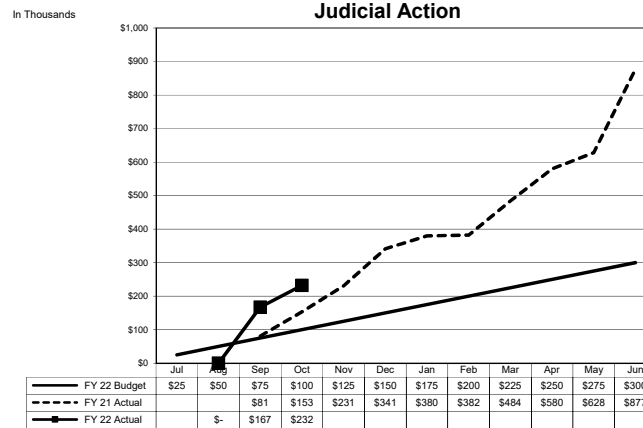
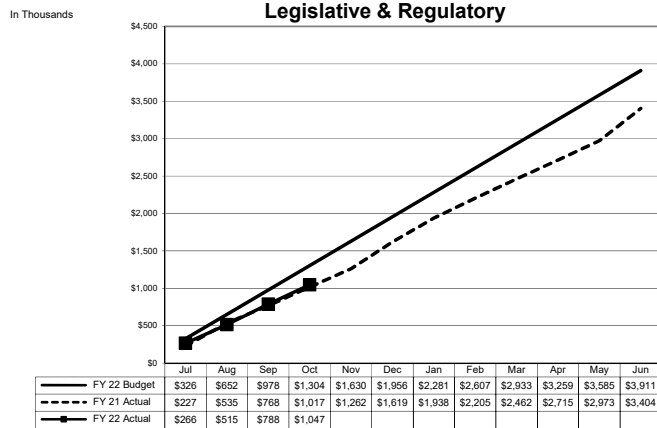
Footnote: Transmission is solely reflective of Independent System Operator (ISO) costs

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



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

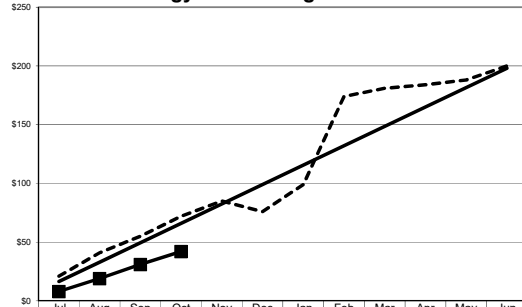
**Annual Budget Cost
Management Services Analysis By Source
As of October 31, 2021**



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

In Thousands

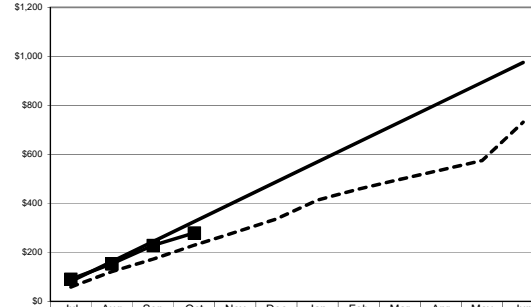
Energy Risk Management



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 22 Budget	\$17	\$33	\$50	\$66	\$83	\$99	\$116	\$132	\$149	\$165	\$182	\$198
FY 21 Actual	\$21	\$41	\$55	\$72	\$85	\$76	\$99	\$174	\$181	\$184	\$188	\$200
FY 22 Actual	\$8	\$19	\$31	\$42								

In Thousands

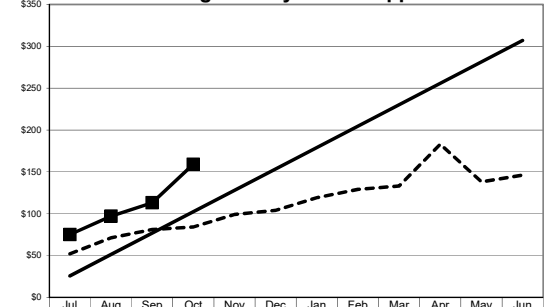
Settlements



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 22 Budget	\$81	\$163	\$244	\$325	\$406	\$488	\$569	\$650	\$731	\$813	\$894	\$975
FY 21 Actual	\$58	\$121	\$172	\$229	\$282	\$336	\$413	\$458	\$497	\$536	\$574	\$731
FY 22 Actual	\$90	\$153	\$228	\$279								

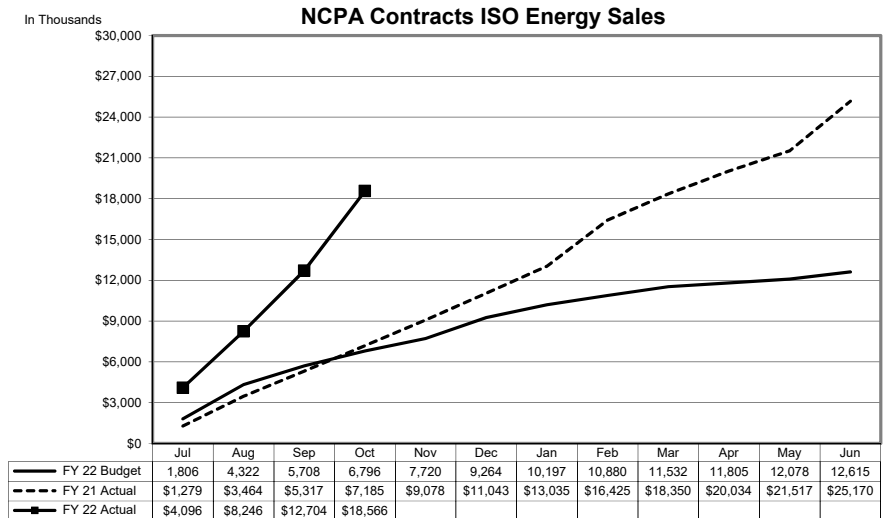
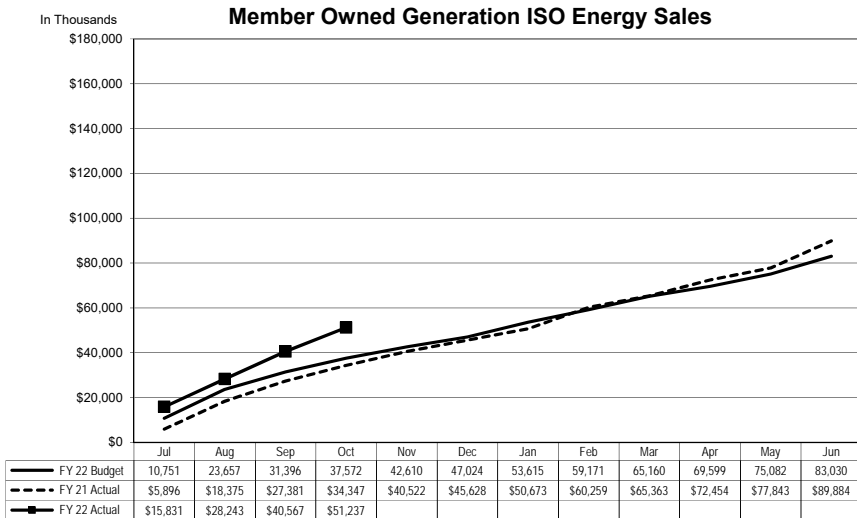
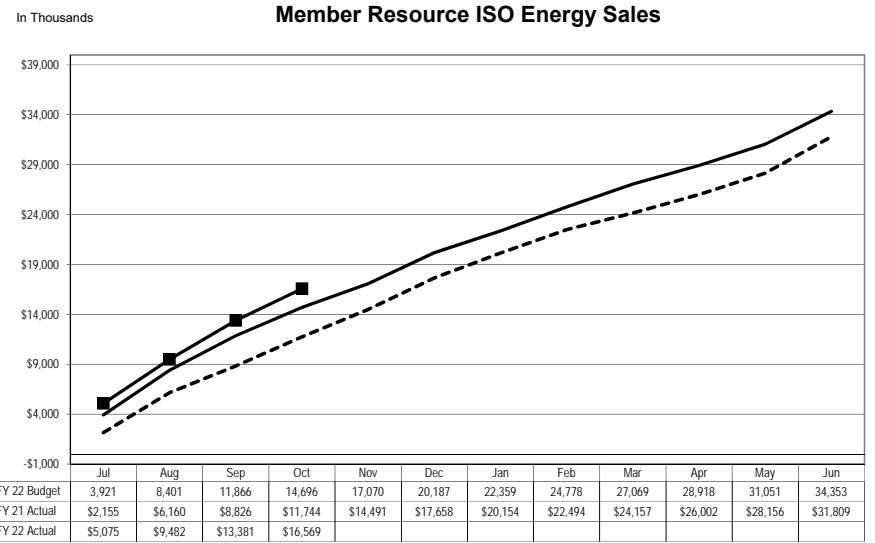
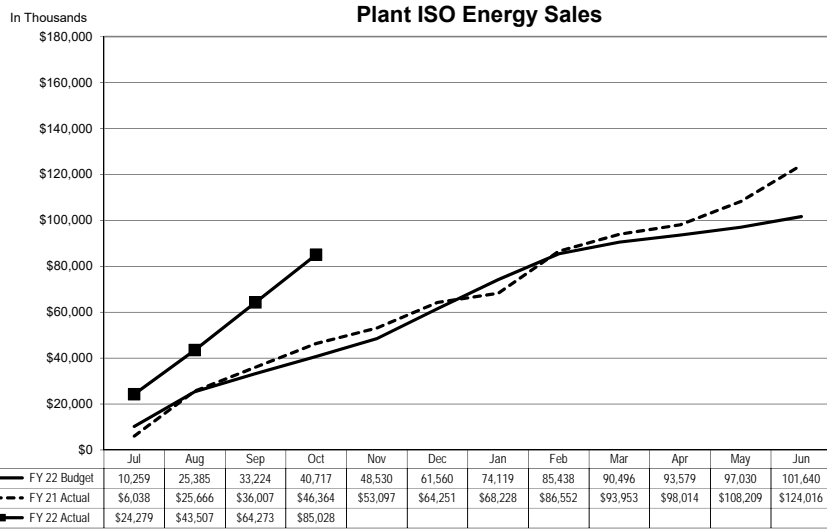
In Thousands

Integrated Systems Support

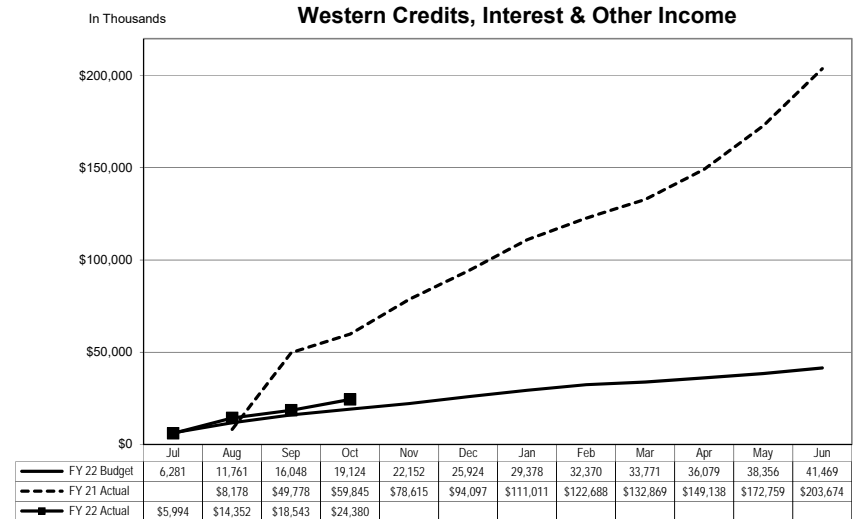
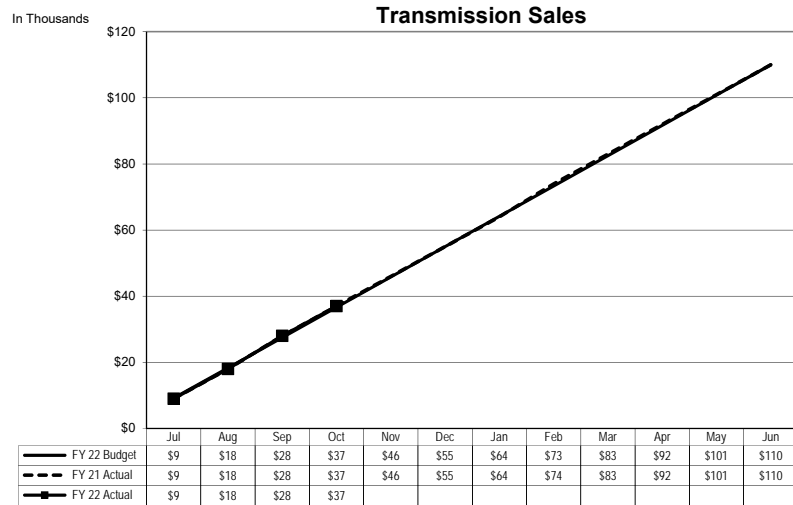
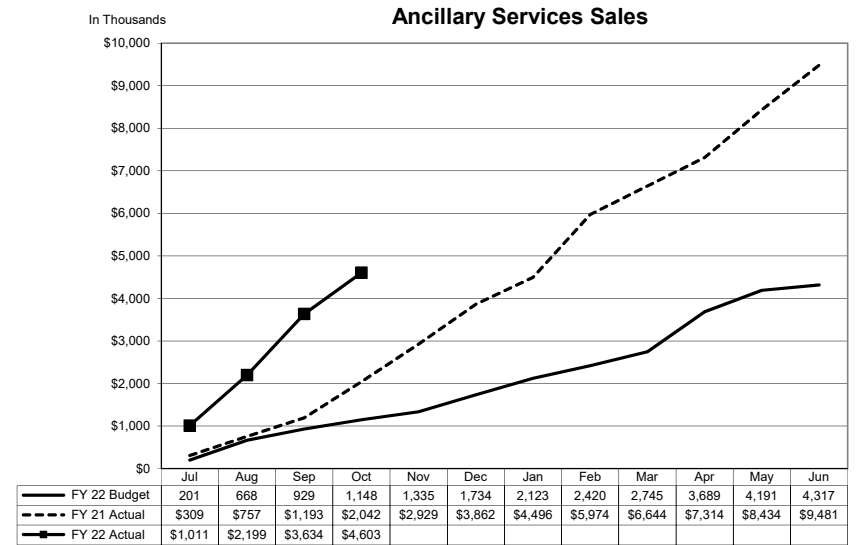
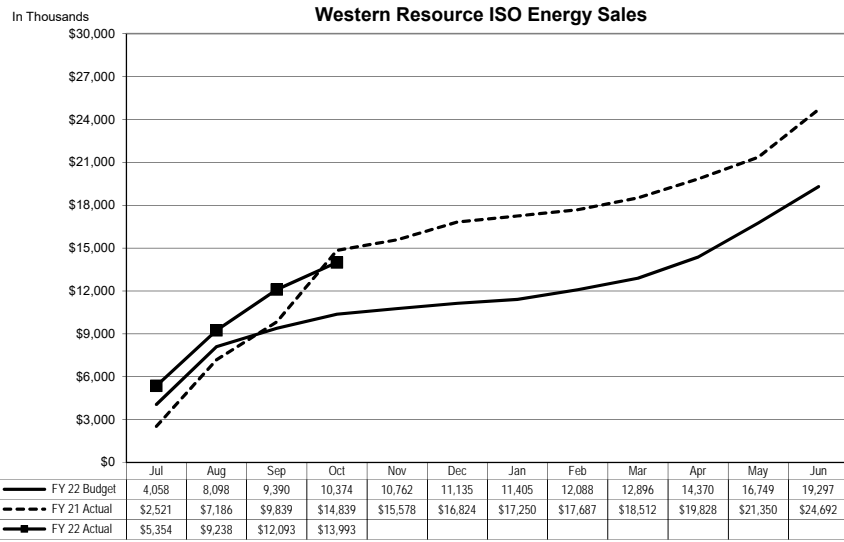


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 22 Budget	\$26	\$51	\$77	\$102	\$128	\$154	\$179	\$205	\$230	\$256	\$281	\$307
FY 21 Actual	\$52	\$71	\$81	\$84	\$99	\$104	\$119	\$129	\$133	\$183	\$138	\$146
FY 22 Actual	\$75	\$97	\$113	\$159								

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



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



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

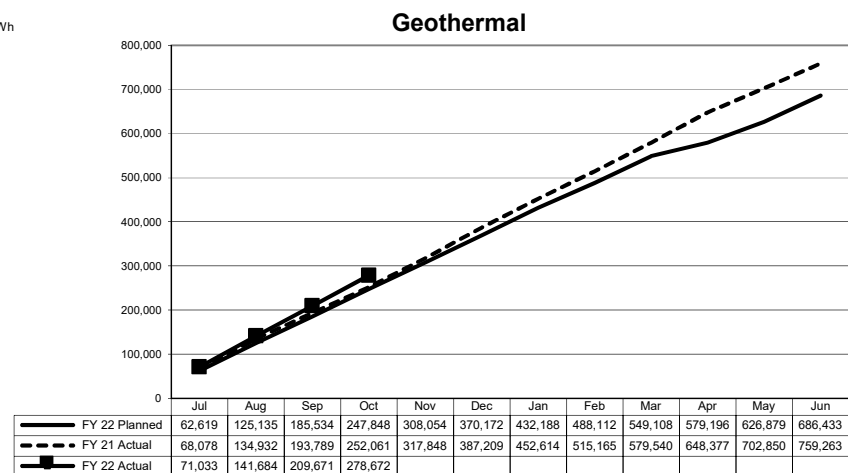
Generation Cost Analysis

\$ in thousands

	Geothermal				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 17,803	\$ 5,467	\$ 19.62	\$ 12,337	69%
Capital Assets/Spare Parts Inventories	6,205	1,926	6.91	4,279	69%
Other Costs	11,197	3,988	14.31	7,209	64%
CA ISO Charges	504	454	1.63	50	10%
Debt Service	4,953	1,651	5.93	3,302	67%
Annual Budget	40,662	13,485	48.39	27,177	67%
Less: Third Party Revenue					
Interest Income	382	25	0.09	357	93%
ISO Energy Sales	27,578	18,889	67.78	8,688	32%
Ancillary Services Sales	-	-	-	-	-
Effluent Revenues	750	(19)	(0.07)	769	103%
Misc	113	39	0.14	74	65%
	28,823	18,935	67.95	9,888	34%
Net Annual Budget Cost to Participants	\$ 11,839	\$ (5,450)	\$ (19.56)	\$ 17,289	146%
Net Generation--MWh @ Meter	686,433	278,672			
\$/MWh (A)	\$ 10.03	\$ (25.48)			

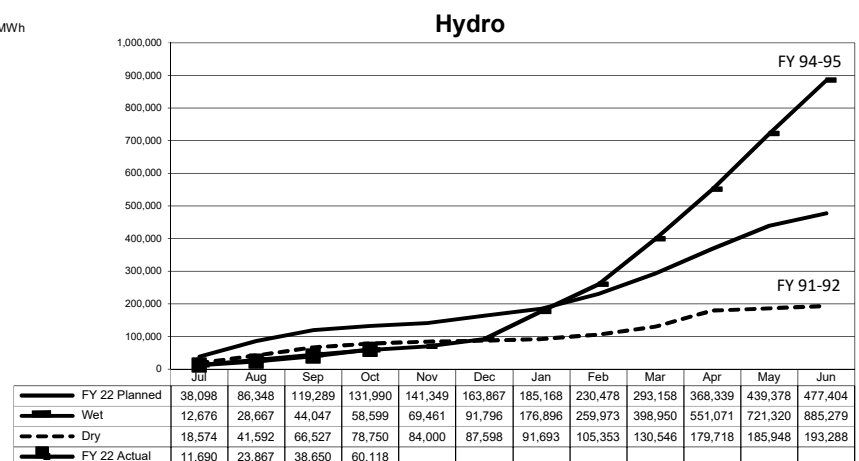
MWhs Generated

In MWh



	Hydroelectric				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 9,882	\$ 2,394	\$ 39.82	\$ 7,488	76%
Capital Assets/Spare Parts Inventories	3,465	1,381	22.97	2,084	60%
Other Costs	4,677	1,600	26.62	3,077	66%
CA ISO Charges	2,635	2,471	41.10	164	6%
Debt Service	33,422	11,141	185.31	22,281	67%
Annual Budget	54,081	18,987	315.82	35,095	65%
Less: Third Party Revenue					
Interest Income	670	37	0.61	633	94%
ISO Energy Sales	22,047	7,718	128.38	14,329	65%
Ancillary Services Sales	2,241	2,149	35.74	92	4%
Misc	-	-	-	-	-
	24,959	9,904	164.74	15,055	60%
Net Annual Budget Cost to Participants	\$ 29,123	\$ 9,083	\$ 151.08	\$ 20,040	
Net Generation--MWh @ Meter	477,404	60,118			
\$/MWh (A)	\$ (9.00)	\$ (34.23)			

In MWh



Footnotes:

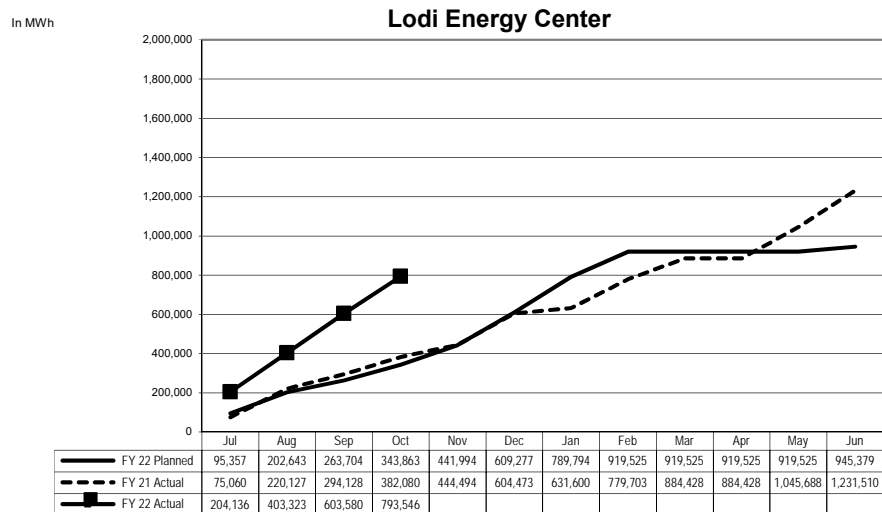
(A) Aggregate fiscal year generation in \$/MWh (excluding debt service)

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

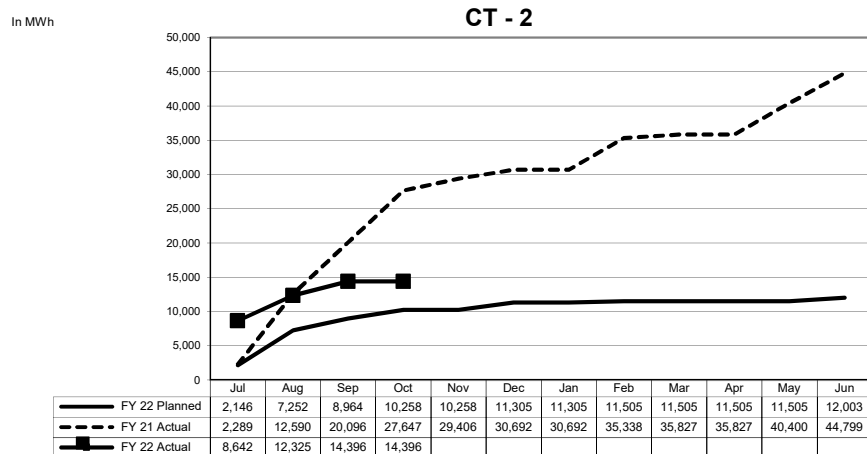
Generation Cost Analysis

	Lodi Energy Center				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 9,558	\$ 3,618	\$ 4.56	\$ 5,940	62%
Fuel	31,029	34,548	43.54	(3,519)	-11%
AB 32 GHG Offset	6,269	7,588	9.56	(1,319)	-21%
CA ISO Charges and Energy Purchases	3,137	2,166	2.73	971	31%
Capital Assets/Spare Parts Inventories	5,007	723	0.91	4,283	86%
Other Costs	7,805	2,132	2.69	5,673	73%
Debt Service	26,008	8,788	11.07	17,220	66%
Annual Budget	88,813	59,564	75.06	29,249	33%
Less: Third Party Revenue					
Interest Income	386	93	0.12	293	76%
ISO Energy Sales	49,394	54,712	68.95	(5,318)	-11%
Ancillary Services Sales	1,152	2,290	2.89	(1,138)	-99%
Transfer Gas Credit	-	-	-	-	0%
GHG Allowance Credits	6,102	7,472	9.42	(1,370)	-22%
Misc	-	-	-	-	0%
	57,034	64,567	81.37	(7,533)	-13%
Net Annual Budget Cost to Participants	\$ 31,779	\$ (5,003)	\$ (6.30)	\$ 36,782	116%
Net Generation--MWh @ Meter	945,379	793,546			
\$/MWh (A)	\$ 6.10	\$ (17.38)			

MWhs Generated



	Combustion Turbine No. 2 (STIG)				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 1,627	\$ 428	\$ 29.71	\$ 1,199	74%
Fuel and Pipeline Transport Charges	1,265	1,195	83.02	70	6%
Capital Assets/Spare Parts Inventories	46	-	-	46	100%
Other Costs	735	218	15.13	517	70%
CA ISO Charges	136	103	7.16	33	24%
Debt Service	5,048	1,683	116.88	3,365	67%
Annual Budget	8,858	3,627	251.91	5,232	59%
Less: Third Party Revenue					
Interest Income	109	8	0.54	101	93%
ISO Energy Sales	1,321	1,756	121.95	(435)	-33%
Ancillary Service Sales	-	-	-	-	0%
Fuel and Pipeline Transport Credits	1,788	711	49.40	1,077	60%
GHG Allowance Credits	104	-	-	104	100%
Misc	-	-	-	-	0%
	3,322	2,475	171.89	847	26%
Net Annual Budget Cost to Participants	\$ 5,536	\$ 1,152	\$ 80.02	\$ 4,384	79%
Net Generation--MWh @ Meter	12,003	14,396			
\$/MWh (A)	\$ 40.69	\$ (36.86)			



Footnotes:

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

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

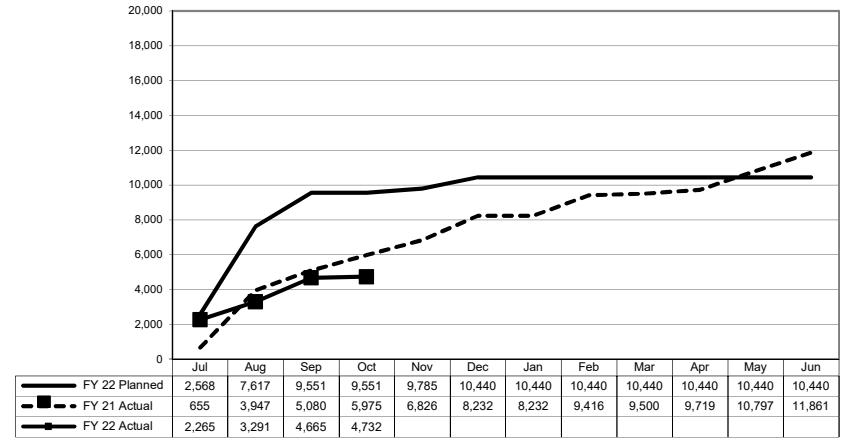
Generation Cost Analysis

	Combustion Turbine No. 1				
	Budget	Actual	\$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	\$ 2,497	\$ 1,119	\$ 236.38	\$ 1,378	55%
Fuel and Pipeline Transport Charges	792	620	131.01	172	22%
Capital Assets/Spare Parts Inventories	2,573	333	70.44	2,240	87%
Other Costs	1,104	357	75.48	746	68%
CA ISO Charges	90	431	90.97	(341)	-380%
Debt Service	-	-	-	-	-
Annual Budget	7,055	2,860	604.28	4,195	59%
Less: Third Party Revenue					
Interest Income	-	14		(14)	
ISO Energy Sales	1,300	1,952	412.59	(653)	-50%
Ancillary Services Sales	-	-	-	-	0%
Misc	-	-	-	-	0%
	1,300	1,966	412.59	(666)	-51%
Net Annual Budget Cost to Participants	\$ 5,755	\$ 894	\$ 188.82	\$ 4,862	84%
Net Generation--MWh @ Meter	10,440	4,732			
\$/MWh (A)	\$ 551.26	\$ 188.82			

MWhs Generated

In MWh

CT - 1



Footnotes:

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