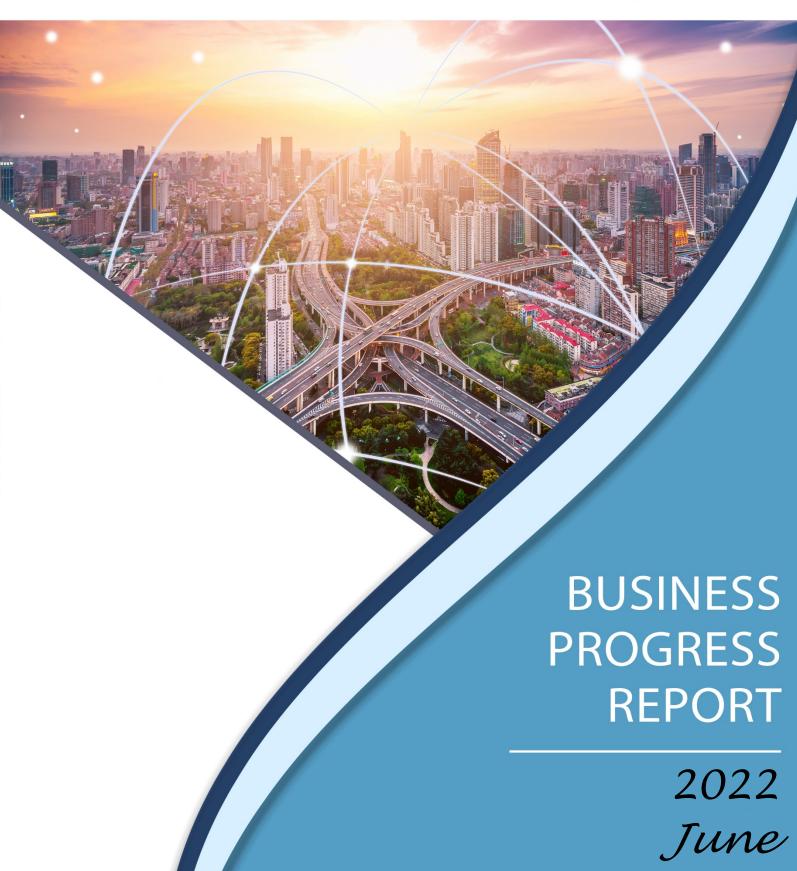


Northern California Power Agency 651 Commerce Drive | Roseville, California 95678 (916) 781-3636 | www.ncpa.com



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# **Generation Costs & Reliability**

## **Combustion Turbine Project**

## **Unit Operation for May 2022**

Unit	Availability Production		n	Reason for Run		
CT1 Alameda	Unit 1	Unit 2	Unit 1	0.0	MWh	CAISO / CAISO
CTT Alameda	0.0%	50.3%	Unit 2	142.8	MWh	CAISO / CAISO

Curtailments, Outages, and Comments:

Unit 1: 5/01 @ 00:00 - 5/31 @ 23:59; Oil Fire and Repair, OMS 11417957

5/01 @ 00:00 - 5/15 @ 22:59; Transmission Induced Generator Outage,

Unit 2: OMS 11722476

5/16 @ 00:00 - 10:39; Unit 1 Crane Work, OMS 11756014/11786886

Unit	Availability	Production	Reason for Run
CT1 Lodi	100.00%	470.3 MWh	CAISO

Curtailments, Outages, and Comments:

Normal Operation.

Unit	Availability	Production	Reason for Run
CT2 STIG	3.2%	0.0 MWh	CAISO/TESTING

Curtailments, Outages, and Comments:

5/01 @ 00:00 - 5/30 @ 23:59; Annual Maintenance Outage, OMS 10821687

Unit	Availability	Production	Reason for Run
LEC	0.0%	0 MWh	CAISO

Curtailments, Outages, and Comments:

3/1 @ 00:00 - 5/31 @ 23:59; CT ULN and ST Generator Major Maintenance Outage, OMS 11341152

Maintenance Summary - Specific per asset above.

# **Geothermal Facilities**

# **Availability/Production for May 2022**

Unit	Availat	oility	Generat	ectricity ed/Water vered	Out-of-Service/Descriptors
Unit 1	94.49	%	19,794	MWh	U1 was offline 5/6 0200 until 5/7 1843 for off gas system cleaning/stret repair
Unit 2	97.58	%	*20,356	MWh	U2 was offline 5/6 0200 until 5/6 2015 for stret repair
Unit 3	N/A	%	N/A	-	Unit 3 remains out of service.
Unit 4	100	%	28,190	MWh	Unit 4 had no outages for the month
Southeast Geysers Effluent Pipeline	DATA UNAVAILABLE	%	DATA UNAVAILABLE	mgallons	Average flow rate: DATA UNAVAILABLE gpm
Southeast Solar Plant	N/A		133,567	KWh	Year-to-date KWh: 1,359,769
Bear Canyon Pump Station Zero Solar	N/A		132,975	KWh	Year-to-date KWh: 1,551,399

<sup>\*</sup> Accounts for an additional 606 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

# **Hydroelectric Project**

# **Availability/Production for May 2022**

Units	Availability	Net Electricity Generated	Out-of-Service
Collierville Unit 1	100%	8489 MWh	CV Unit 1 – No Outages.
Collierville Unit 2	100%	12798 MWh	CV Unit 2 – No Outages.
Spicer Unit 1	95.54%	0 MWh	NSM1- Out of Service on 5/17/22 from 1157 to 1412 for transfer trip trouble and on 5/18/22 to 5/19/22 from 0701 to 1354 for PGE work at Tiger Creek.
Spicer Unit 2	95.54%	0 MWh	NSM2- Out of Service on 5/17/22 from 1157 to 1412 for transfer trip trouble and on 5/18/22 to 5/19/22 from 0701 to 1354 for PGE work at Tiger Creek.
Spicer Unit 3	95.51%	189 MWh	NSM3- Out of Service on 5/17/22 from 1157 to 1422 for transfer trip trouble and on 5/18/22 to 5/19/22 from 0701 to 1400 for PGE work at Tiger Creek.

# Operations & Maintenance Activities:

- CMMS work orders
- NSM Recreation Facilities Startup

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

- There were no vehicle, Cal OSHA recordable incidents, or Lost Time accidents in the month of May.
- 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 May 21, 2022.
- 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.

May 2022 Generation Services Safety Report

	Hydro	GEO	CT Group *	NCPA HQ **
Cal OSHA Recordable (this month)	0	0	0	0
Cal OSHA Recordable (calendar year)	0	0	0	0
Days since Recordable	587	211	2,602	3,586
Work Hours Since Last Recordable	49,570	43,372	395,256	2,816,317
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	0	0	0
Days without LTA	5,336	2,465	10,506	6,599
Work Hours without LTA	482,139	207,582	805,800	2,438,335
Vehicle Incident (month)	0	0	0	0
Vehicle Incident (calendar year)	0	0	0	0

<sup>\*</sup> CT Group: Combines CT-1, CT-2 and LEC Operations

Data originates from OSHA logs, HR records and payroll information. Days and Hours are calculated through pay period ended May 21, 2022.

<sup>\*\*</sup> NCPA HQ: Roseville employees at the Main Office

## **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 2022 Data**

0 311 0110 1 0311 2 022 2 3110					
	May 2022		Calendar Year 2022		
	Peak MW	MWh	Peak MW	MWh	
NCPA Pool	392.74 5/25 @ 1700	184,129	392.74 5/25 @ 1700	895,639	
SVP	619.25 5/25 @ 1500	378,117	619.25 5/25 @ 1500	1,806,979	
MSSA	1006.73 5/25 @ 1600	562,246	1006.73 5/25 @ 1600	2,702,618	

## Last Year 2021 Data\*

	May 2021		Calendar Year 2021		
	Peak MW	MWh	Peak MW	MWh	
NCPA Pool	349.23 5/31 @ 1800	183,809	440.56 6/17 @ 1700	895,238	
SVP	525.51 5/10 @ 1700	339,066	591.96 8/27 @ 1500	1,618,968	
MSSA	853.26 5/31 @ 1800	522,875	1025.46 6/17 @ 1700	2,514,206	

<sup>\*</sup>Last year's data added for comparison purposes only

## **System Peak Data**

	All Time Peak Demand	2022 Peak Demand
NCPA Pool	517.83 MW on 7/24/06 @ 1500	392.74 5/25 @ 1700
SVP	619.25 MW on 5/25/22 @ 1500	619.25 5/25 @ 1500
MSSA	1070.79 MW on 9/1/17 @ 1700	1006.73 5/25 @ 1600

 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 5minute 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						
May 2022 Calendar Year 2022						
MSSA % Within the Band	98.71%	98.23%				

- There were no PG&E PSPS events.
- CAISO Oversupply Potential Notifications:
  - o 5/1/22, HE10-16
  - o 5/7/22, HE11-15
  - o 5/8/22, HE11-16
  - o 5/29/22, HE11-16
  - o 5/30/22. HE11-15
- There were no CAISO Real-time Contingency Dispatches (RTCD).

## Pooling, Portfolio Planning & Forecasting

- NCPA Pool load during May 2022 was 184,209 MWh versus the budget forecast of 185,595 MWh, resulting in a forecast error of 0.75%. The current weather outlook for June 2022 is for normal temperatures and little rainfall. The Pool's June load forecast is 194,548 MWh compared with extrapolated actuals of 202,568 MWh as of June 16, 2022.
- Lodi Energy Center (LEC) ran 0 hours out of a possible 744 producing 0 MWh.
   Natural gas and power prices are significantly higher than a year ago due to the low reservoir levels throughout the state and the situation in Ukraine. LEC is on outage through June.
- During May 2022, 0.00" of rain was recorded at the Big Trees gauge. May average rainfall at Big Trees is 1.26". New Spicer Meadows storage increased by just over 17,000 acre feet in May, mainly due to increased melt and maintaining minimum reservoir releases under 20cfs until the last week of May.
- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) has remained at \$300/MWh. Releases from NSMR have been ramped up to meet and maintain the June 1<sup>st</sup> summer minimum Big Trees flows of 150 CFS.
- New Spicer Meadows storage as of May 31, 2022 was 128,693 acre feet. The
  historical average storage at the end of May is 138,598 acre feet. As of June 14<sup>th,</sup>
  storage was 129,035 acre feet. Peak storage this year was 129,378 acre feet on
  June 9<sup>th</sup>.
- Combined Calaveras Project generation for the Pool in May 2022 totaled 10,475 MWh, down from 25,686 MWh in April 2022.
- Western Base Resource (BR) deliveries for the Pool during May 2022 were 20,965 MWh. Displacement program energy totaled 0 MWh. The Pool's share of expected total delivery from the Western Base Resource for June 2022 is 20,196 MWh.
- The PG&E Citygate gas index averaged \$9.297 / MMBtu during the month of May as compared to an average of \$7.30 for April. June's current average price is \$9.55 Both NYMEX gas and basis prices increased due to the unrest in world fuel prices and below average storage volumes. The July 2022 PG&E Citygate forward price is \$8.22 / MMBtu.

 Day-Ahead PG&E DLAP electricity prices for May averaged \$74.44 / MWh On-Peak and \$68.10 Off-Peak, with a high of \$214.38. For the dates of June 1<sup>st</sup> through the 15<sup>th</sup>, 2022 prices have averaged \$87.17 On-Peak and \$75.44 Off-Peak. The forward prices for July are \$91.95 On-Peak and \$78.50 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 August 2022:
  - o Monthly System Resource Adequacy Demonstration (filed June 17, 2022)
  - Monthly Supply Plan (filed June 17, 2022)

## **Industry Restructuring**

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

## **Energy Storage Enhancements**

 Next steps: Final Straw Proposal postponed, Aug 30, 2022 ISO Board of Governors and WEIM Governing Body joint meeting.

## **Extended Day-Ahead Market**

- NCPA submitted comments generally in support of EDAM.
  - o EIM is resulting in bilateral markets drying up so EIM entities are concerned they will have no other markets to go to if they are locked out of the EDAM. This development resulted in stakeholders reevaluating a core fundamental EDAM principle of "no leaning". NCPA expressed concerns of building "leaning" functionality into the markets which would enable EDAM entities to continue participating in the program despite failing a given resource sufficiency evaluation (RSE). Notwithstanding the aforementioned, NCPA could support limited RSE failure exceptions in non-stressed conditions. If an RSE is failed during stressed conditions (e.g., Energy Emergency Alert Watch or worse) they may continue participating if there is surplus but would be subject to an after the fact penalty at a price to be determined. The penalty must be applied ex post and not included in the optimization in order to mitigate pricing impacts to sufficiently resourced participants.
  - NCPA supports the Shared Transfer Revenue Distribution proposal for sharing revenues that are collected when a transfer constraint binds and creates energy, imbalance reserve, or reliability capacity price differences between two participating BAAs at an EDAM internal intertie. The revenues would be allocated 50/50 among EDAM Entities or CAISO and an EDAM Entity. In addition, congestion revenue attributable to external interties or scheduling points would be distributed to the EDAM BAA that manages the transmission made available at that intertie. NCPA requested more workshops to walk through transfer revenue scenarios and more information how LSEs will see the benefits of the revenue.
  - NCPA generally supports the resource specific model for GHG accounting and reporting.

- EDAM Next steps:
  - Jun-Jul 2022 Technical workshops
  - o Aug 11, 2022 Revised straw proposal posting
  - o Aug 25, 2022 Meeting
  - o Sep 09, 2022 Comments due on revised straw proposal
  - Sep 2022 Draft tariff framework posting
  - o Oct 19, 2022 Draft final proposal posting
  - o Nov 02-03, 2022 Meeting
  - o Nov 03, 2022 Draft tariff posting
  - o Nov 18, 2022 Comments due on draft final proposal and draft tariff language
  - Dec 07, 2022 Final proposal posting
  - o Dec 14, 2022 ISO Board of Governors and WEIM Governing Body joint meeting

## Resource Adequacy Enhancements

- CAISO delayed further work on RA Enhancements indefinitely in order to align bid insertion, must offer obligation, and flexible RA proposals with DAME, EDAM, and CPUC stakeholder initiatives. No schedule is currently available other than fall 2023 implementation.
- NCPA continues to monitor RA developments at CPUC that could materialize at CAISO and NCPA could then become subject to. Jurisdictional entities are vetting an hourly slice of day proposal that would better ensure sufficient coverage in all hours than the current coincident peak program. One could envision batteries, large hydro, and peakers in the AM and PM ramps, solar during the day, and base load and wind generation overnight. A 17% planning reserve margin is also being proposed but the unforced capacity concept is evolving into more of an ambient derate concept which could result in lesser impact on Net Qualifying Capacity values than the original proposal to degrade the values when the original proposal which would reduce NQC when units experienced forced outages during certain periods of tight supply. The proposals seem rational thus far.

### Day-Ahead Market Enhancements

- NCPA submitted comments supporting Load Following Metered Subsystem RUC cost exemption and Imbalance Reserve Product cost netting. Other entities opposed the initiative's timing or were concerned that it would not adequately address uncertainty and increase costs.
- DAME Next steps
  - Jul 19, 2022 Draft final proposal posting
  - Jul 26, 2022 Meeting
  - o Aug 09, 2022 Comments due
  - Sep 01, 2022 ISO Board of Governors and WEIM Governing Body joint meeting

## Transmission Access Charge Structure Enhancements

• Initiative draft final proposal is complete and the initiative is currently on hold pending developments from Extend Day Ahead Market to EIM initiative.

## Western

## Western Base Resource Tracking (NCPA Pool)

	Western Base Resource Tracking - NCPA Pool																	
		Actual		Costs & Rates														
	BR	BR		Base Resource &	Monthly	CAISO LMP	12-Mo Rolling											
	Forecast <sup>1</sup>	Delivered	Difference	Restoration Fund	Cost of BR <sup>2</sup>	Differential <sup>3</sup>	Avg. Cost of BR <sup>4</sup>											
	(MWh)	(MWh)	(MWh)	(\$)	(\$/MWh)	(\$/MWh)	(\$/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	-	(8,712)	\$759,202	\$ 87.14	\$ -	\$ 49.25											
Dec-21	7,036	1,094	(5,942)	\$759,202	\$ 693.97	\$ 0.78	\$ 50.71											
Jan-22	5,620	880	(4,740)	\$759,202	\$ 862.73	\$ -	\$ 51.22											
Feb-22	14,806	6,343	(8,463)	\$759,202	\$ 119.69	\$ 0.01	\$ 50.12											
Mar-22	21,003	10,930	(10,073)	\$759,202	\$ 69.46	\$ 0.06	\$ 50.44											
Apr-22	55,270	13,637	(41,633)	\$1,735,370	\$ 127.25	\$ (0.46)	\$ 51.96											
May-22	90,965	20,965	(70,000)	\$1,735,370	\$ 82.77	\$ 1.76	\$ 53.42											
Jun-22	86,068	-	0	\$1,735,370	\$ 20.16	\$ -	\$ 47.70											
1/	As forecaste	ed in NCPA 21	/22 Budget															
2/	= (Western (	Cost + Restora	ation Fund)/B	R Delivered, for Pool	Participants (	only.												
3/	= (MEEA LM	P - PG&E LAP	LMP) using pu	ıblic market informat	ion (i.e. not s	ettlement qua	3/ = (MEEA LMP - PG&E LAP LMP) using public market information (i.e. not settlement quality).											

 NCPA Pool received 20,965 MWh of Base Resource (BR) energy in May 2022 with an estimated MEEA savings of \$36,800. There was zero MWh displaced energy.

4/ Based on BR Delivered (Actual) when available and BR Forecast in all other cases. Includes CAISO LMP

 Pool Members' cumulative MEEA savings for FY2022 is approximately \$72,950 from July 2021 through May 2022.

## **Interconnection Affairs**

## PG&E Update

## TO-18 and TO-19 Rate Case

- On March 24, 2022 FERC issued an order on PG&E's TO18 return on equity, reducing PG&E's base return on equity from 10.4% to 9.26%, and ordering PG&E to pay refunds by May 2022.
- May 16, 2022 PG&E made a Compliance Filing with FERC in which it calculated the TO-18 refund amount to be \$234 million. The Compliance Filing stated "the CAISO is responsible for administering refunds that occur as a result of adjustment of a PTO TAC/WAC." NCPA has reached out to the ISO to find out more information on the timing and process of refunds.
- PG&E's TO19 settlement is tied to the TO18 outcome. PG&E will have to pay refunds in TO19 after a final, non-appealable decision is made in the TO18

proceeding. TANC estimates the TO-19 refund to be \$248.5 million (HV: \$112.8 million; LV: \$135.7 million).

## 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. CAISO has updated their full network model.
- NCPA and PG&E operating procedure is complete.
- May 2022 NCPA received formal approval from CEC. Intertie switch engineering, design, and construction to be complete by fall of 2022 or spring 2023.

## 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.
- Members have indicated they would like to keep the original 110MW plus CDWR's layoff (an additional 55 MW) since NCPA has paid for the capacity.

# **Debt and Financial Management**

- On June 10<sup>th</sup>, the Bureau of Labor Statistics reported that CPI surged 8.6% last month from 12 months earlier, faster than April's year-over-year increase of 8.3%. The costs of gas, food, and other necessities jumped in May, raising inflation to a new four-decade high.
- High inflation has also forced the Federal Reserve into what will likely be the fastest series of interest rate hikes in three decades. By raising borrowing costs aggressively, the Fed hopes to cool spending and growth enough to curb inflation without tipping the economy into a recession. For the central bank, it will be a difficult balancing act. On June 15<sup>th</sup>, the Fed raised interest rates by 0.75% which was the largest move it has made in a single meeting since 1994. They also indicated that further interest rate hikes will come this year to slow the faster-than-expected inflation.
- One of the goals of the 2021-2026 Strategic Plan for developing and enhancing strategies to control costs and minimize risks is reviewing NCPA's Reserve and Security Deposit policies to ensure collected balances are aligned with emerging market risks and opportunities. An RFQ was released in late May with the goal of kicking off this project in late June. The plan is to review the maintenance reserves

of each project, security deposit requirements for the SCPA, MPP, GPP, and GHG programs, and NCPA's Working Capital. Staff is targeting August/September to review the recommendations with the Commission.

## **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
  - IS team deploying apps in the test environment to test the Oracle 2019 database and testing is on-going. September 2022 rollout into production anticipated.
  - IS Team configuring the Deal Manager app for Palo Alto's use. Anticipating a July 2022 rollout.
- Customer and Resource Integration
  - Work continues on the Settlements-related configurations for the South Feather Water and Power Agency Resources.
  - Initial systems configuration for the integration of NID's Deer Creek resource.

## **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,
  - Camp Far West IS team has completed the integration with Camp Far West at the end of April and are currently monitoring and controlling this resource.
  - Deer Creek IS team is currently working with NID staff to collect the required information needed to perform a successful integration of the Deer Creek hydro resource by first of July
  - Luciana Solar IS is coordinating with the necessary technical teams to setup communications to the resource. We anticipate communications to be established by mid-summer.
- Operations and Support continues to work with VOIP vendor Integration Partners and ISP Consolidated Communications (CCI) to replace HQ and Disaster Recovery Center phone systems and migrate to Session Initiation Protocol (SIP) from a legacy PRI circuit. Cutover is expected to be completed this summer.
- Operations and Support continue working on preparations necessary for CIP-012
   Control Protection requirement that will be enforced by July 1<sup>st</sup> of 2022. Currently
   working with AT&T to ensure encrypted communications between NCPA and CAISO
   are compliant with this new standard.
- Oracle 2019 continues to be 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 fall of 2022.

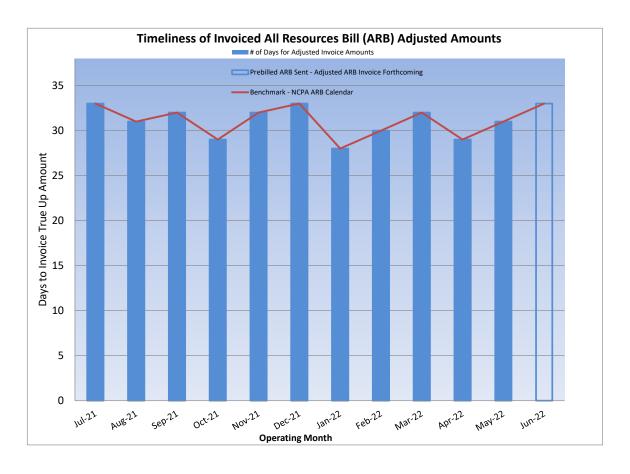
# **NCPA Bills & Settlements**

## **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 June 2022 NCPA All Resources Bill (ARB) monthly invoice sent to members on May 24, 2022 contains:

- June 2022 monthly pre-billed budget/forecast amounts;
- April 2022 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;
- March 2022 (2nd Adjustment) NCPA Project settlement true-up and T+20 business day recalculated CAISO settlement true-up allocations;
- January 2022 (3rd Adjustment) T+70 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;
- May 2021 (4th Adjustment) T+11 month recalculated CAISO settlement true-up allocations;
- September 2020 (5th Adjustment) T+18 month recalculated CAISO settlement true-up allocations;
- June 2019 (6th Adjustment) T+33 month recalculated CAISO settlement true-up;
- March 2019 (7th Adjustment) T+36 month CAISO settlement true-up;



## **Legislative & Regulatory**

## **Energy Efficiency Update**

On May 17, 2022, NCPA, SCPPA, and CMUA submitted its annual joint report to the California Energy Commission (CEC) regarding the results of public power energy efficiency programs for Fiscal Year 2021, on behalf of the state's POUs. This year's submission was the 16<sup>th</sup> edition of the annual energy efficiency report, as required by SB 1037 (Kehoe, 2005). During fiscal year 2021, California POUs spent \$159 million on energy efficiency programs, investments that helped contribute to 2,851 GWh in lifecycle energy savings, a 254 GWh reduction of annual electricity consumption, as well as a reduced peak demand of nearly 81,000 kW.

## **Human Resources**

## <u>Hires:</u>

Kasimere Edwards joined the Operations team at the Lodi Energy Center as a Combustion Turbine Specialist II (Operator), effective May 23, 2022. Kasimere joins us from the United States Navy, where he was a Nuclear Mechanical Operator. In this role, he was responsible for maintaining steaming and lay-up chemistry in two steam generators, executing corrective and preventative maintenance, and supervising the maintenance and review of primary and secondary preventative maintenance and calibration programs. Kasimere brings ten years of naval nuclear power experience. Kasimere has a Bachelor's degree in Nuclear Engineering Technology from Excelsior College.

## **Intern Hires:**

Erin Loader joined Redding Electric Utility as a Student Assistant III, effective May 2, 2022.

Abigail Goss joined Redding Electric Utility as a Student Assistant II, effective May 16, 2022.

Manuel Romero joined the City of Lodi as a Student Assistant III, effective May 16, 2022.

Lauren Giordano joined NCPA Headquarters' Generation Services team as a Student Assistant III, effective May 31, 2022.

Ryan Dolan joined NCPA's Lodi Energy Center as a Student Assistant III, effective May 31, 2022.

Eric Oliver joined Redding Electric Utility as a Student Assistant III, effective May 31, 2022.

## **Promotions:**

Melissa Conrad was promoted to Materials/Warehouse Coordinator I at NCPA's Hydro, effective May 23, 2022. Melissa joined NCPA's Lodi Energy Center in 2013. Since

becoming a Facility Office Administrator, she has built relationships with NCPA members and vendors and assisted with training, accounting, payroll, office administration, events, tours, and meeting organization. Melissa has developed an understanding of NCPA's procurement processes, policies and procedures, and safety programs. She has also trained as backup support for LEC's Materials/Warehouse Coordinator. Melissa holds a Bachelor's degree in Accounting from Humphreys College.

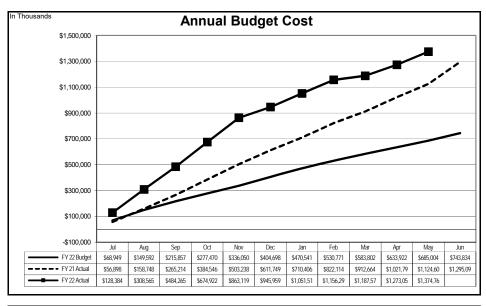
Vela Wann was promoted to Energy Resource Analyst III at NCPA's Headquarters offices, effective June 5, 2022. Vela joined NCPA in 2012 as an Accountant/Analyst I, later reclassed as a Power Settlements Analyst I, and in 2018 was promoted to an Energy Resource Analyst II. Throughout her time at the Agency, Vela has continued to develop her professional skills and always demonstrates a high level of professionalism, productivity, and willingness to take on new assignments and challenges based on the needs of the Agency. Vela is highly respected by her peers and NCPA's members and customers and is acutely focused on providing strong customer service. Vela holds a Bachelor of Arts degree in Organizational Studies with a minor in Psychology from the University of California, Davis.

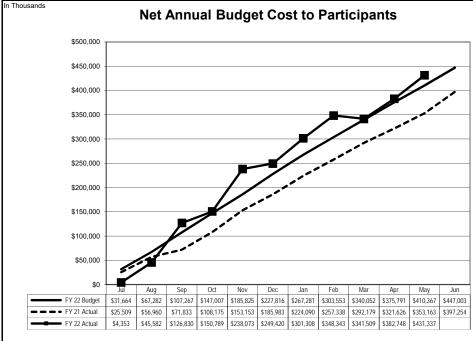
## Separations:

Rod Stagg resigned from his position as a Computer Technology Analyst III at our Headquarters office on May 27, 2022.

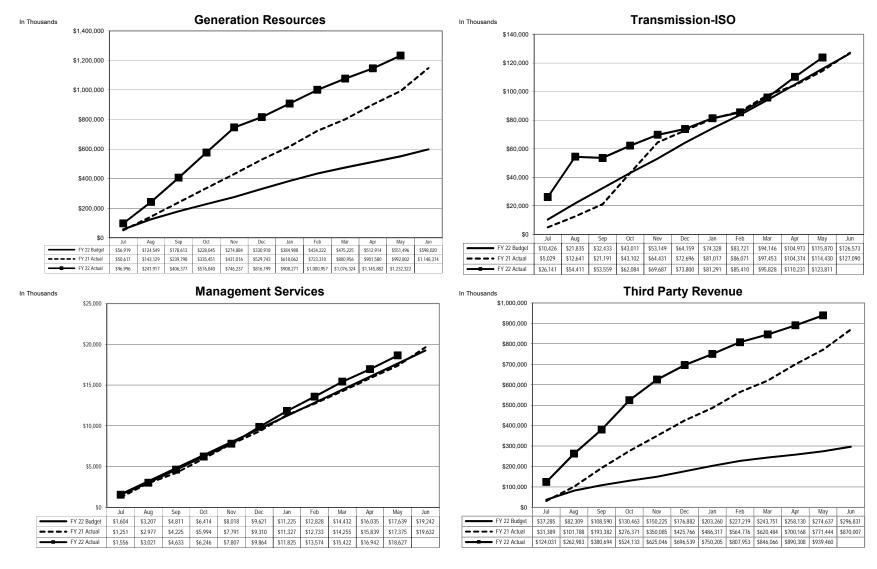
## Annual Budget 2021-2022 Fiscal Year To Date As of May 31, 2022

In Thousands		Program		
	Annual		Under(Ovr)	YTD %
GENERATION RESOURCES	Budget	Actual	Budget	Remaining
NCPA Plants				
Hydroelectric	54,081	49,646	\$ 4,435	8%
Geothermal Plant	40,662	37,138	3,524	9%
Combustion Turbine No. 1	7,055	7,734	(679)	-10%
Combustion Turbine No. 2 (STIG)	8,962	8,188	775	9%
Lodi Energy Center	88,813	119,282	(30,469)	-34% -11%
Member Resources - Energy	199,574 67,417	221,988 78,024	(22,414)	
Member Resources - Natural Gas	2,981	4,904	(10,608)	
Western Resource	27,302	22.234	(1,923) 5,068	19%
Market Power Purchases	17,225	44.076	(26,851)	-
Load Aggregation Costs - ISO	282,244	858,009	(575,765)	
Net GHG Obligations	1.277	3.087	(1,810)	-20476
Not one obligations	598,020	1,232,322	(634,303)	-106%
TRANSMISSION	390,020	1,202,022	(034,303)	-100%
Independent System Operator	126,573	123,811	2,762	2%
MANAGEMENT SERVICES				
Legislative & Regulatory				1
Legislative Representation	2,101	1,575	526	25%
Regulatory Representation	634	585	49	8%
Western Representation	694	510	184	26%
Customer Programs	481	422	60	12%
	3,911	3,092	819	21%
Judicial Action	300	965	(665)	-222%
Power Management				
System Control & Load Dispatch	7,427	6,261	1,166	16%
Forecasting & Prescheduling	2,811	2,406	405	14%
Industry Restructuring	423	363	60	14%
Contract Admin, Interconnection Svcs & Ext. Affairs	975	872	103	11%
Gas Purchase Program	81	50	31	38%
Market Purchase Project	116	79	37	32%
F Di-l-M	11,833	10,031	1,802	15%
Energy Risk Management Settlements	198	171	27	14%
Integrated System Support	975 307	704 483	271	28% -57%
Participant Pass Through Costs		1,314	(176)	-57% 24%
Support Services	1,718	1,868	404 (1,868)	24%
Support Scriticus	19,242	18,627	614	3%
TOTAL ANNUAL BUDGET COST	743,834	1,374,761	(630,927)	-85%
_		.,,	(555,521)	
LESS: THIRD PARTY REVENUE				
Plant ISO Energy Sales	101,640	160,724	(59,084)	-58%
Member Resource ISO Energy Sales	34,353	54,792	(20,440)	
Member Owned Generation ISO Energy Sales	83,030	125,023	(41,992)	
Revenue from Customers		90,762	(90,762)	
Customer Owned Generation ISO Energy Sales NCPA Contracts ISO Energy Sales	12,615	180 36,590	(180)	
Western Resource ISO Energy Sales	12,015	18,447	(23,975) 850	4%
Load Aggregation Energy Sales	19,297	391,125	(391,125)	470
Ancillary Services Sales	4,317	8,589	(4,271)	-99%
Transmission Sales	110	101	(4,271)	8%
Western Credits, Interest & Other Income	41,469	57,092	(15,623)	-38%
	296,831	943,424	(646,593)	-218%
Г				,,,
NET ANNUAL BUDGET COST TO PARTICIPANTS	447,003	431,337	\$ 15,666	4%



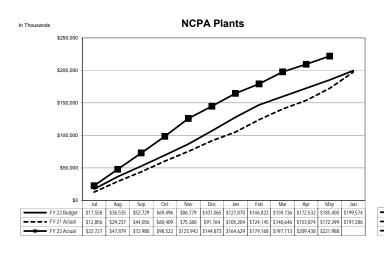


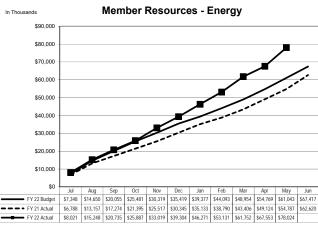
## Annual Budget Budget vs. Actual By Major Area As of May 31, 2022

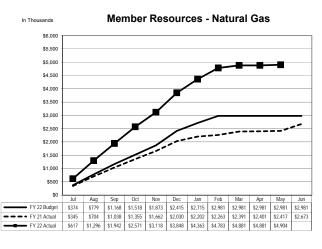


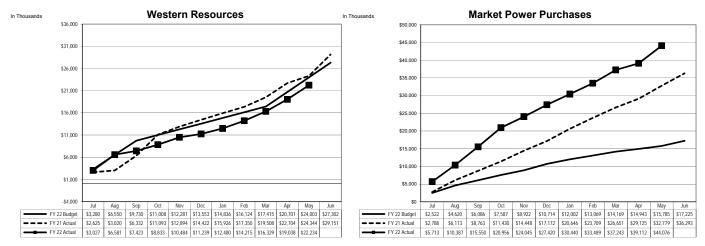
Footnote: Transmission is solely reflective of Independent System Operator (ISO) costs
Transmission-ISO, July 2021 through February 2022, restated to include Other ISO Revenue

#### Annual Budget Cost Generation Resources Analysis By Source As of May 31, 2022



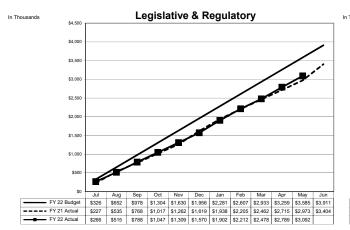


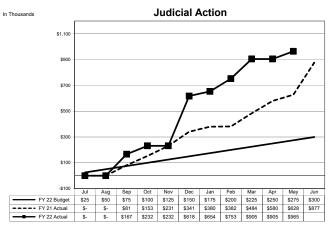


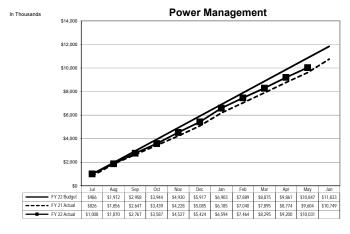


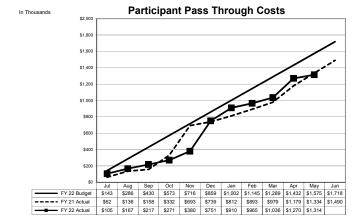
Footnote: Other Resources (Graeagle, BART PV, Gridley PV) are included in Market Power Purchases

#### Annual Budget Cost Management Services Analysis By Source As of May 31, 2022

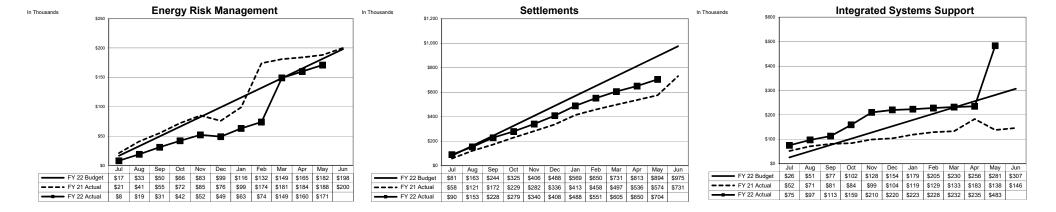




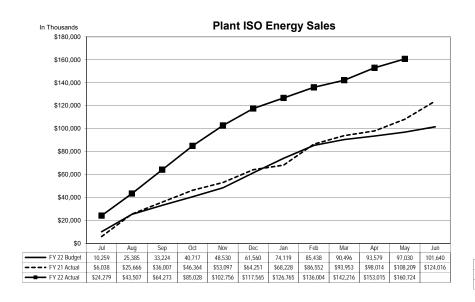


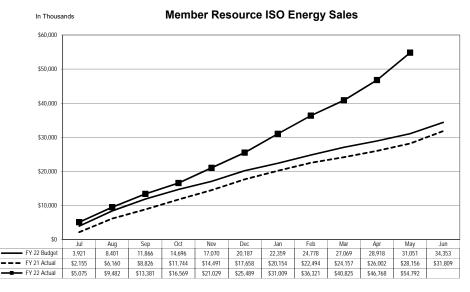


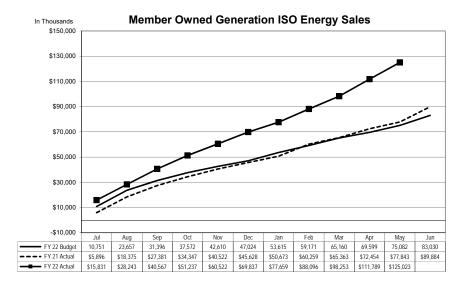
### Annual Budget Cost Management Services Analysis By Source As of May 31, 2022

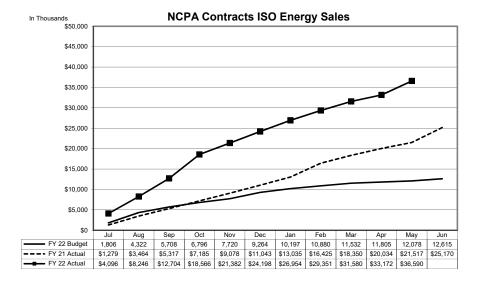


#### Annual Budget Cost Third Party Revenue Analysis By Source As of May 31, 2022

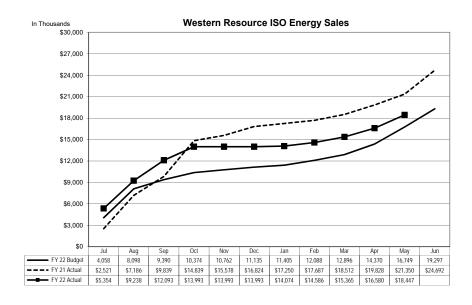


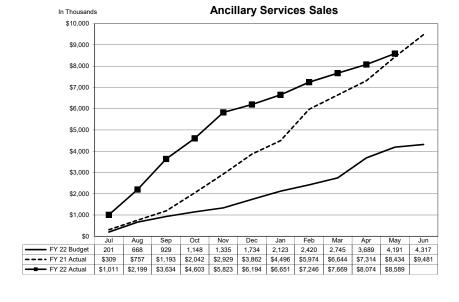


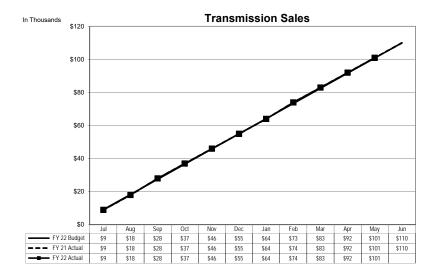


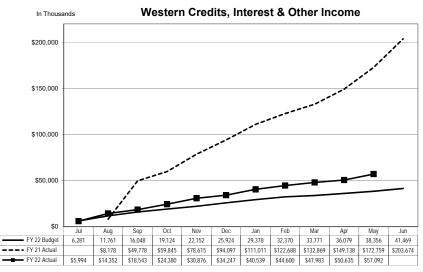


#### Annual Budget Cost Third Party Revenue Analysis By Source As of May 31, 2022









# Annual Budget NCPA Generation Detail Analysis By Plant As of May 31, 2022

## **Generation Cost Analysis**

#### \$ in thousands

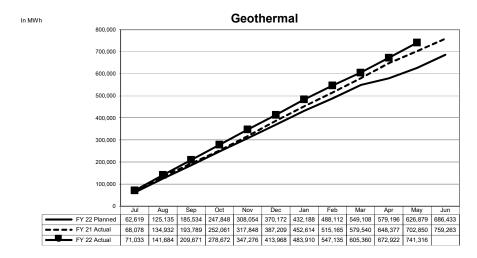
		Geothermal \$/MWh Under(Over) YTE									
						\$/MWh	Ur	ider(Over)	YTD %		
		Budget		Actual		Actual		Budget	Remaining		
Routine O & M	\$	17,803	\$	14,856	\$	20.04	\$	2,948	17%		
Capital Assets/Spare Parts Inventories		6,205		5,874		7.92		331	5%		
Other Costs		11,197		10,954		14.78		243	2%		
CA ISO Charges		504		915		1.23		(411)	-82%		
Debt Service		4,953		4,541		6.13		413	8%		
Annual Budget		40,662		37,138		50.10		3,524	9%		
ess: Third Party Revenue											
Interest Income		382		87		0.12		295	77%		
ISO Energy Sales		27,578		47,123		63.57		(19,545)	-71%		
Ancillary Services Sales		-		-		-		-			
Effluent Revenues		750		632		0.85		118	16%		
Misc		113		106		0.14		7	6%		
		28,823		47,948		64.68		(19,125)	-66%		
Net Annual Budget Cost to Participants	\$	11,839	\$	(10,809)	\$	(14.58)	\$	22,649	191%		
Net GenerationMWh @ Meter		686,433		741,316							
S/MWh (A)	s	10.03	\$	(20.71)							

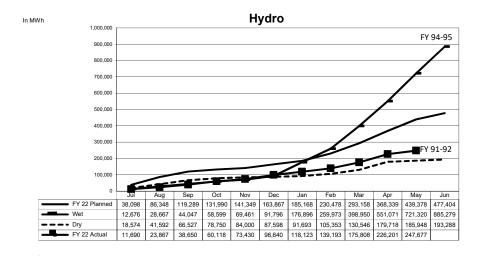
	Hydroelectric								
						\$/MWh	U	nder(Over)	YTD %
	В	udget		Actual		Actual		Budget	Remaining
Routine O & M	\$	9,882	\$	7,061	\$	28.51	\$	2,822	29%
Capital Assets/Spare Parts Inventories		3,465		3,083		12.45		382	11%
Other Costs		4,677		4,384		17.70		293	6%
CA ISO Charges		2,635		4,482		18.09		(1,847)	-70%
Debt Service		33,422		30,637		123.70		2,785	8%
Annual Budget		54,081		49,646		200.45		4,435	8%
Less: Third Party Revenue									
Interest Income		670		72		0.29		598	89%
ISO Energy Sales		22,047		25,941		104.74		(3,893)	-18%
Ancillary Services Sales		2,241		5,054		20.41		(2,813)	-126%
Misc		-		1		0.00		(1)	
		24,959		31,068		125.44		(6,109)	-24%
Net Annual Budget Cost to Participants	\$	29,123	\$	18,578	\$	75.01	\$	10,544	
Net GenerationMWh @ Meter		477,404		247,677					
\$/MWh (A)	\$	(9.00)	\$	(48.69)					

#### Footnotes:

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

#### **MWhs Generated**





# Annual Budget NCPA Generation Detail Analysis By Plant As of May 31, 2022

## **Generation Cost Analysis**

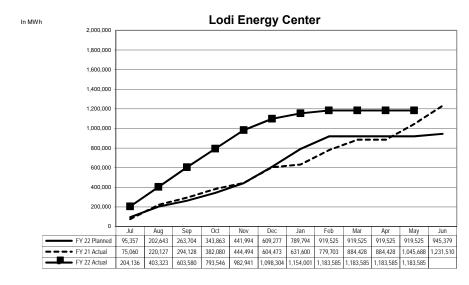
		Loc	di E	nergy Cei	nter		
				\$/MWh	U	nder(Over)	YTD %
	Budget	Actual		Actual		Budget	Remaining
Routine O & M	\$ 9,558	\$ 9,525	\$	8.05	\$	33	0%
Fuel	31,029	53,064		44.83		(22,035)	-71%
AB 32 GHG Offset	6,269	17,471		14.76		(11,202)	-179%
CA ISO Charges and Energy Purchases	3,137	3,269		2.76		(132)	-4%
Capital Assets/Spare Parts Inventories	5,007	4,228		3.57		779	16%
Other Costs	7,805	7,557		6.39		247	3%
Debt Service	26,008	24,168		20.42		1,841	7%
Annual Budget	88,813	119,282		100.78		(30,469)	-34%
Less: Third Party Revenue Interest Income ISO Energy Sales Ancillary Services Sales	386 49,394 1,152	214 80,906 3,242		0.18 68.36 2.74		172 (31,511) (2,090)	44% -64% -181%
Transfer Gas Credit	.,.02					(2,000)	0%
GHG Allowance Credits Misc	6,102 -	16,384 2		13.84 0.00		(10,282) (2)	-169% 0%
	57,034	100,747		85.12		(43,713)	-77%
Net Annual Budget Cost to Participants	\$ 31,779	\$ 18,535	\$	15.66	\$	13,244	42%
Net GenerationMWh @ Meter	945,379	1,183,585					
\$/MWh (A)	\$ 6.10	\$ (4.76)					

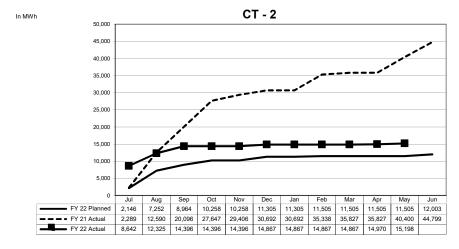
	Combustion Turbine No. 2 (STIG)								
						\$/MWh	ι	Inder(Over)	YTD %
		Budget		Actual		Actual		Budget	Remaining
Routine O & M	\$	1,627	\$	1,201	\$	79.03	\$	426	26%
Fuel and Pipeline Transport Charges		1,265		1,627		107.03		(361)	-29%
Capital Assets/Spare Parts Inventories		46		-		-		46	100%
Other Costs		735		576		37.91		159	22%
CA ISO Charges		136		156		10.30		(21)	-15%
Debt Service		5,048		4,627		304.48		421	8%
Annual Budget		8,858		8,188		538.74		671	8%
Less: Third Party Revenue									
Interest Income		109		24		1.57		85	78%
ISO Energy Sales		1,321		1,872		123.19		(551)	-42%
Ancillary Service Sales		-		-		-		-	0%
Fuel and Pipeline Transport Credits		1,788		2,157		141.92		(369)	-21%
GHG Allowance Credits		104		-		-		104	100%
Misc		-		-		-		-	0%
		3,322		4,053		266.68		(731)	-22%
Net Annual Budget Cost to Participants	\$	5,536	\$	4,135	\$	272.06	\$	1,402	25%
		•							
Net GenerationMWh @ Meter		12,003		15,198					
\$/MWh (A)	\$	40.69	\$	(32.41)					

#### Footnotes:

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

#### **MWhs Generated**





## Annual Budget NCPA Generation Detail Analysis By Plant As of May 31, 2022

## **Generation Cost Analysis**

	Combustion Turbine No. 1								
		Budget		Actual		\$/MWh Actual	U	nder(Over) Budget	YTD % Remaining
Routine O & M	\$	2,497	\$	2,318	\$	121.18	\$	178	7%
Fuel and Pipeline Transport Charges		792		2,176		113.77		(1,385)	-175%
Capital Assets/Spare Parts Inventories		2,573		1,550		81.04		1,023	40%
Other Costs		1,104		982		51.34		121	11%
CA ISO Charges		90		707		36.94		(617)	-688%
Debt Service		-		-				-	
Annual Budget		7,055		7,734		404.27		(679)	-10%
Less: Third Party Revenue Interest Income		_		35				(35)	
ISO Energy Sales Ancillary Services Sales Misc		1,300		4,882 - -		255.20 - -		(3,583)	-276% 0% 0%
		1,300		4,917		255.20		(3,618)	-278%
Net Annual Budget Cost to Participants	\$	5,755	\$	2,817	\$	147.23	\$	2,938	51%
				·		·			
Net GenerationMWh @ Meter		10,440		19,131					
\$/MWh (A)	\$	551.26	\$	147.23					

#### Footnotes:

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

### **MWhs Generated**

