2020 BUSINESS PROGRESS REPORT

APRIL

A PUBLIC AGENCY
NCPA
NORTHERN CALIFORNIA POWER AGENCY

Northern California Power Agency
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Generation Costs & Reliability

Combustion Turbine Project

Unit Operation for March 2020

Unit	Availability		Production	Reason for Run
CT1 Alameda	Unit 1	Unit 2	Unit 1 4.7 MWh	CAISO / CAISO
	39.8%	3.1%	Unit 2 0.0 MWh	
Curtailments, Outages, and Comments: Unit 1: 3/2 Annual Maintenance ETR 4/15, OMS# 7821159. Unit 2: 3/2 @ 0000 - 3/20 @ 1500 Annual Maintenance, OMS# 7801165				

Unit	Availability	Production	Reason for Run
CT1 Lodi	100.0%	0.0 MWh	CAISO
Curtailments, Outages, and Comments: Normal operation.			

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	0.0%	0 MWh	CAISO
Curtailments, Outages, and Comments: 3/1 - 3/31 - LEC CT Failure, OMS 8187485.			

Maintenance Summary – Specific per asset above.

Geothermal Facilities

Availability/Production for March 2020

Unit	Availability	Net Electricity Generated/Water Delivered	Out-of-Service/Descriptors
Unit 1	100 %	23,158 MWh	U1 had no outages for the month
Unit 2	100 %	*23,797 MWh	U2 had no outages for the month
Unit 3	N/A %	N/A	Unit 3 remains out of service.
Unit 4	70.56 %	22,522 MWh	U4 was OOS 3/1 - 3/2 @ 0830 due to PG&E line outage. U4 was OOS 3/24 @ 1230 - 3/31 due to turbine vibration/oil pressure problem.
Southeast Geysers Effluent Pipeline	2.082 %	124.9 mgallons	Average flow rate: 2,734 gpm
Southeast Solar Plant	N/A	0 KWh	Year-to-date KWh: 2,598,995
Bear Canyon Pump Station Zero Solar	N/A	70,327 KWh	Year-to-date KWh: 3,972,203

* Accounts for an additional 1,178 MWh of house load for the 21KV power supply to the effluent pipeline supplied from Unit #2.

Hydroelectric Project

Availability/Production for March 2020

Units	Availability	Net Electricity Generated	Out-of-Service
Collierville Unit 1	99.48 %	6315 MWh	CV1 was out of service on 3/10/20 from 0822 to 1214 for exciter brush replacement.
Collierville Unit 2	100 %	10500 MWh	No Outages to Report.
Spicer Unit 1	98.78 %	0 MWh	NSM1 was out of service on 3/12/20 from 0559 to 1507 for PG&E Substation Work.
Spicer Unit 2	98.78 %	0 MWh	NSM2 was out of service on 3/12/20 from 0559 to 1507 for PG&E Substation Work.
Spicer Unit 3	86.12 %	190 MWh	NSM3 was out of service on 3/12/20 to 3/16/20 from 0559 to 1317 for PG&E Substation Work.

Operations & Maintenance Activities:

- CMMS work orders
- Changed out exciter brushes on CV1
- Complete 2018-2019 Water Year Report for Projects 11563 and 2409
- Annual USFS/NCPA Coordination Meeting
- Contract awarded for 230 KV insulator replacement project

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

- There were no Cal OSHA recordable, Lost Time, or vehicle accidents in the month of March.

- 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 March 28, 2020.

- 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.

March 2020
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	283	613	1,818	6,802
Work Hours Since Last Recordable	24,950	128,108	269,364	2,512,544
LTA's (this month)	0	0	0	0
LTA's (calendar year)	0	0	0	0
Days without LTA	4,552	1,681	9,722	5,815
Work Hours without LTA	413,847	345,083	679,908	2,134,562
Vehicle Incident (month)	0	0	0	0
Vehicle Incident (calendar year)	0	0	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 March 28, 2020.

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 2020 Data

	March 2020		Calendar Year 2020	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	311.68 3/4 @1900	181,544	336.72 1/16 @1900	556,534
SVP	482.27 3/4 @1500	309,568	484.02 2/27 @1600	923,039
MSSA	776.86 3/4 @ 1900	491,112	804.23 1/16 @ 1200	1,479,573

Last Year 2019 Data*

	March 2019		Calendar Year 2019	
	Peak MW	MWh	Peak MW	MWh
NCPA Pool	322.12 3/5 @1900	187,642	478.77 8/15 @ 1700	566,137
SVP	462.93 3/18 @1500	306,082	587.78 6/11 @1600	893,067
MSSA	765.73 3/5 @ 1900	493,724	1057.99 8/15 @ 1700	1,459,204

*Last year's data added for comparison purposes only

System Peak Data

	All Time Peak Demand	2020 Peak Demand
NCPA Pool	517.83 MW on 7/24/06 @ 1500	336.72 1/16 @ 1900
SVP	587.78 MW on 6/11/19 @ 1600	484.02 2/27 @1600
MSSA	1070.79 MW on 9/1/17 @ 1700	804.23 1/16 @ 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		
	March 2020	Calendar Year 2020
MSSA % Within the Band	97.92%	95.73%

- Dispatch and SC group are operating in split mode occupying both Roseville HQ and DRC beginning March 16

- Spicer Meadows:
  - March 12, units separated from the grid for PG&E substation work. Unit 3 remained on providing station service power.
  - March 17, station service power restored normal

- Geothermal Units:
  - March 2, Unit 4 returned to service from PG&E Geysers 12 – Fulton 230kV line outage
  - March 24, Unit 4 removed from service due to high vibration and low lube oil pump pressure. Unit will remain o/s through schedule annual maintenance outage in April

- Lodi Energy Center:
  - March 1 - 31, Unit remains o/s for combustion turbine replacement. ETR 6/30

- Alameda CTs:
  - March 2, Unit 1 and 2 removed from service for planned annual maintenance
  - March 20, Unit 1 returned to service
  - Unit 2 ETR April 15

- Lodi CT:
  - No curtailments

- Collierville Units:
  - March 10, Unit 1 o/s for exciter brush replacement

- STIG:
  - No curtailments

Pooling, Portfolio Planning & Forecasting

- NCPA Pool load during March 2020 was 181,339 MWh, or 95.9% of forecast. The stay-at-home mandate issued on March 19th has changed load patterns across the state. Pool load through April is also expected to be lower than during the same period last year, due to reduced demand related to COVID-19 impacts.

- Lodi Energy Center (LEC) did not operate during March. LEC is expected to be offline through June 30, 2020.

- During March 2020, 8.44" of rain was recorded at the Big Trees gauge. Average March Big Trees precipitation is 8.30".

- The Value of Storage (VOS) of New Spicer Meadow Reservoir (NSMR) has been increased from $55/MWh to $75/MWh.

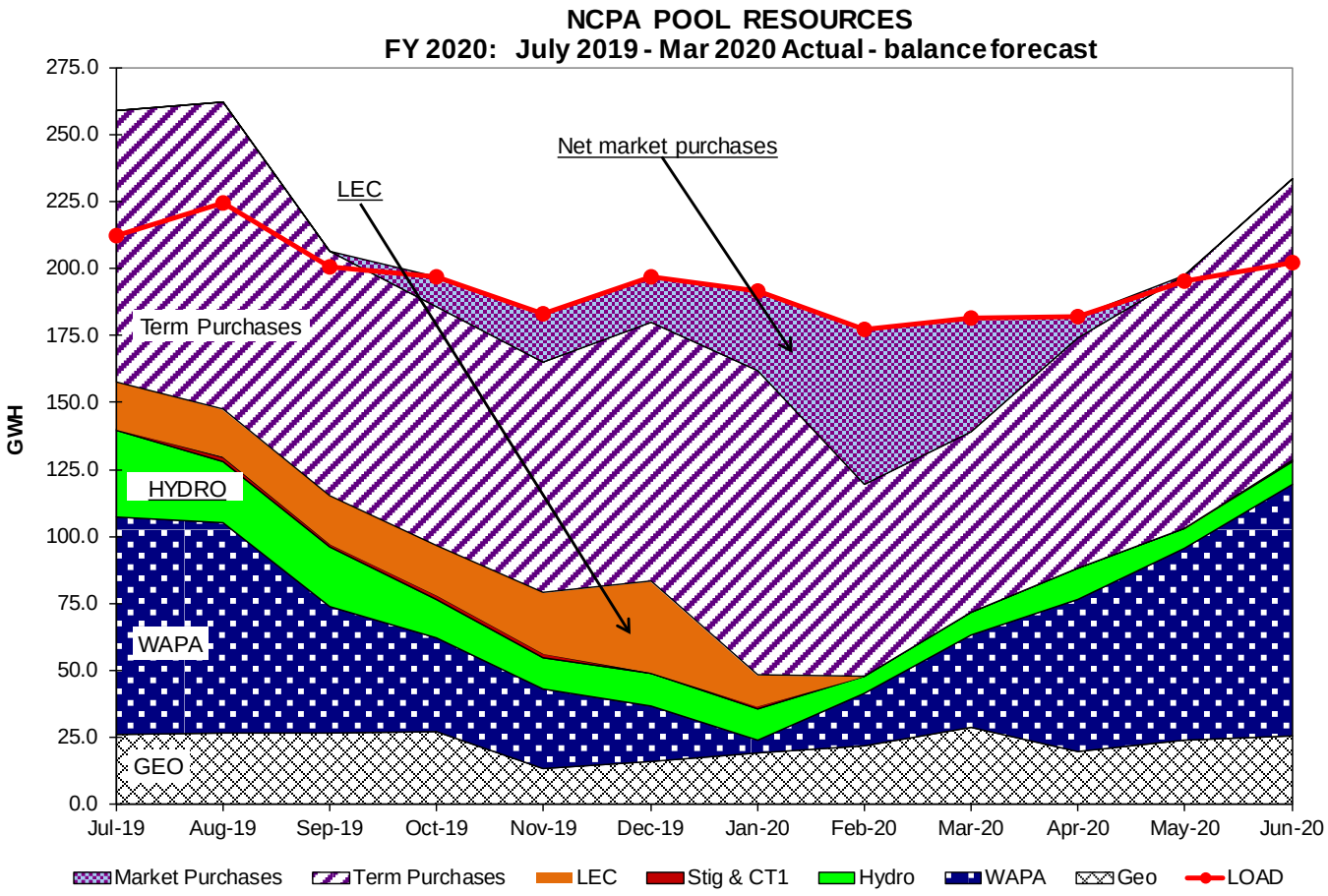
- NSMR storage as of March 31, 2020 was at 85,813 acre feet. The historical average NSMR storage at the end of March is 78,840 acre feet. As of April 7, 2020 NSMR storage is 87,432 acre feet. The current NCPA Pool share of NSMR storage is 44,753 acre feet.

- Combined Calaveras Project generation for the Pool in March 2020 totaled 8.6 GWh, up from 6.3 GWh in February 2020. The Pool's 8.6 GWh in March 2020 was below the pre-month forecast of 11.6 GWh.

- Western Base Resource (BR) deliveries for the Pool during March 2020 were 34,397 MWh, including Displacement energy totaling 2,402 MWh. Energy received was 132% of Western's pre-month forecast, possibly due to early snow melt. Western's latest rolling forecast for the pool's share of April 2020 generation is 61,486 MWh.

- The PG&E Citygate gas index averaged $2.175/MMBtu for delivery on April 6, 2020, well below the average PG&E gas price during March of $2.545/MMBtu an impending spring cold spell. The April 2020 PG&E Citygate Bidweek price is $2.335/MMBtu, or 35 cents lower than the March Bidweek price – and $1.20 lower than January's $3.54/MMBtu.

- Day-Ahead NP15 electricity prices averaged $27.62/MWh (HLH) and $25.25 (LLH) during March 2020, with evening ramp hour prices never reaching $60 at TH_NP15 as demand fell and heavy renewables curtailments flattened prices toward the end of the month.



NCPA Pool Loads & Resources Value Summary

	Peak and Energy Summary Mar-20				Estimated Production Costs		Cost of Serving Demand	
	Coincident Peak (MW)	Total MWh	Pre-Month Forecast Values	Avg. MW	NCPA Pool			
	Mar-04-20 Hour 19				Cost/Revenue (Estimate)	Variable Cost ($/MWh)	Totals	Avg ($/MWh)
Demand	311.7	181,339	189,164	244.1	N/A	N/A		
			69152				**at Market Clearing Price**	
WAPA	-	34,397	26,242	46.3	$ 1,170,720	$ 34.04	$ 5,058,634	$ 27.90
Geothermal	-	28,765	26,512	38.7	546,531	19.00		
Hydro	-	8,600	11,180	11.6	51,600	6.00		
Stig & CTs	-	2	-	0.0	30	14.10	**at Variable Cost of Pool Generation**	
LEC	-	-	-	-	-	32.38		
Contracts	-	67,088	88,109	90.3	3,866,601	57.63	$ 7,359,876	$ 40.59
Market - Net	311.7	42,487	37,121	57.2	1,169,148	27.52		
(Net Sales = Negative)								
Net Total	311.7	181,339	189,164	244.1	$ 6,804,630	$ 40.59		

Monthly Market Summary

	Pool Energy (MWh)	HLH Avg MCP ($/MWh)	Avg Variable Cost of Pool Generation ($/MWh)
Jul-19	212,102	$ 33.30	$ 56.98
Aug-19	224,328	$ 34.79	$ 37.80
Sep-19	200,894	$ 37.46	$ 40.97
Oct-19	186,955	$ 38.43	$ 33.39
Nov-19	182,993	$ 43.69	$ 40.97
Dec-19	182,993	$ 43.69	$ 48.09
Jan-20	191,771	$ 32.76	$ 39.71
Feb-20	177,169	$ 27.58	$ 46.65
Mar-20	**181,339**	**$ 27.90**	**$ 40.59**
Apr-20			
May-20			
Jun-20			

Forward Prices (EOX NP15 HLH Ask Prices)	NP15 3/2/2020 ($/MWh)	4/6/2020 ($/MWh)
May-20	**$ 24.17**	**$ 21.91**
Jun-20	**31.44**	**27.81**
Jul-20	**45.92**	**40.06**
Q3 2020	**$ 46.78**	**$ 41.14**
Q4 2020	**39.62**	**39.19**
Q1 2021	**39.15**	**37.21**
CY2021	**$ 38.91**	**$ 38.28**
CY2022	**37.00**	**37.32**
CY2023	**35.88**	**36.38**
CY2024	**35.09**	**35.56**
CY2025	**34.73**	**35.31**
CY2026	**34.64**	**35.13**

NOTES TO SUMMARY TABLE:

Peak and Energy Summary:

* Monthly generation summary of Coincidental Peak (hour in which pool demand peaked), total MWH for the month, and pre-month forecasted values for report period.
* Generation totals are for POOL SHARE of the projects.
* Hydro totals include Collierville and Spicer generation.

Estimated Production Costs:

* Fixed project costs not included except for WAPA, where total month's project costs are used to calculate the average unit cost.
* STIG and CT costs include forward natural gas and basis hedge transactions.
* STIG & CT costs reflect $2.60 and $1.62/MWH variable O&M costs per 6-12-06 GSCA.

Cost of Serving Demand:

Compares price of meeting total monthly demand with (1) Hourly pool market clearing price; (2) Variable cost of pool gen. Pool Gen is sum of estimated costs divided by sum of generation

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 May 2020:
  - Monthly System Resource Adequacy Demonstration (filed March 17, 2020)
  - Monthly Supply Plan (filed March 17, 2020)

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

- This initiative will develop an approach to extend participation in the Day-Ahead market to the Western Energy Imbalance Market (EIM) entities in a framework similar to the existing EIM approach for the real-time market, rather than requiring full integration into the California ISO balancing area. The extended Day-Ahead market (EDAM) will improve market efficiency by integrating renewable resources using Day-Ahead unit commitment and scheduling across a larger area.
- CAISO responded to stakeholder concerns and is extending the process to include more workshops to deal issues such as transmission cost allocation.
- February workshops focused on transmission provisions, resource sufficiency evaluations, and congestion revenue rights. The package of topic was described as bucket 1. With two more contentious buckets to follow, a fall 2021 go live is unlikely.
- CAISO and EIM participants continue to discuss terms and products conceptually without offering much detail and discussion of implementation costs is non-existent.

Resource Adequacy Enhancements

- Due to the rapid transformation of the resource mix in California, the CAISO is currently re-examining the CAISO Resource Adequacy requirements and rules. This initiative will explore changes to the CAISO's Resource Adequacy requirements and rules to ensure the resources providing reserve services are effectively supporting reliable operations of the grid.
- CAISO is proposing massive overhauls to its RA program in conjunction with CPUC changes. Specific areas the CAISO is looking at are termination of the Resource Adequacy Availability Mechanism for System capacity and replacing it with "less complicated" counting rules similar to eastern RTOs, import eligibility, exemptions, and redefining Planned and Forced outages.
- CAISO published a Third Revised Straw Proposal and scheduled a stakeholder meeting for 1/7/2020. Maximum import capability calculation and allocation portions were moved to a separate and distinct placeholder initiative. CAISO removed long and fast ramp proposals. However, CAISO failed to adequately address NCPA's concerns regarding jurisdiction, hydro counting, and the UCAP deficiency tool, among others. NCPA will continue to advocate at meetings and in comments.
- The fourth revised straw proposal was published last month and a stakeholder meeting took place. New components are two options for modifying the planned outage process:

- Option 1: CalCCA Proposal - Develop Planned Outage Planning Reserve Margin for off peak months and allow all planned outages without substitution.
- Option 2: SCE - CAISO develops substitution market

CAISO seemed to favor option 1 by expressing concerns with complexity and lack of incentives to show capacity under option 2. NCPA's primary issue with current process is CAISO's ability to cancel outages and then refer SCs to FERC if resubmitting outage as forced. The primary issue is that "forced" designation is set by the fact that it was submitted seven or fewer days prior to a given trade date. SCs should be able to submit forced outages that further out and not be subject to denial, rather only be subject to reduced UCAP.

- NCPA will continue to advocate for must offer obligation exemption due to existing LF-MSS balancing requirements.

<u>Day-Ahead Market Enhancements</u>

- This initiative will explore new Day-Ahead products that will address ramping needs between intervals and uncertainty that can occur between the Day-Ahead and real-time markets.
- CASIO reviewed the need for new products along with data supporting uncertainty concerns:
  - Uncertainty between Day-Ahead and real-time market has increased from 2017 to 2019 and CAISO operators are addressing this development with out of market actions which disrupts market efficiency
  - Historically, generators had higher certainty to know if they would be scheduled in real-time
  - Due to uncertainty and changing resource fleet, commitment decisions are no longer necessarily known
  - Gas, hydro, storage, and imports need to cover costs to be available for dispatch in real-time – this will be accomplished with imbalance reserves
- Two new products:
  - Imbalance Reserve Product (IRP) will be designed to address granularity and uncertainty between Day-Ahead and real-time markets:
    - Hourly product;15-minute dispatchable; Biddable; Covers granularity difference and uncertainty between DAM and FMM; All awards are co-optimized and settled simultaneously; DAM has no energy price formation issue because the market solves all hours in a single optimization; Stepped relaxation parameters (proposed)
  - Reliability Energy: replaces RUC process used to address gaps between bid in demand and forecast demand.
- CAISO reviewed two options for applying IRP and REN:
  - Option 1 – Financial
    - Co-optimizes bid-in demand, ancillary services and imbalance reserves
    - Imbalance reserves cover historical uncertainty between IFM cleared net load and FMM net load
    - Exceptional dispatch if IFM clears inconsistent with operational needs
  - Option 2 – Financial + Forecast
    - Co-optimizes bid-in demand, ISO reliability capacity, ancillary services and imbalance reserves
    - Imbalance reserves cover historical uncertainty between ISO's Day-Ahead net load forecast and FMM net load

    - Reliability capacity covers differences between ISO net load and cleared net load
    - Exceptional dispatch if IFM/RUC clears inconsistent with operational needs
- CAISO reviewed policy alignment and relationships among Day-Ahead Market Enhancements, Extending Day-Ahead Market to EIM, and Resource Adequacy Enhancements. Fall 2021 target.
- NCPA Comments included tentative support of Option 2 along with requests for special Load Following MSS cost allocation netting.
- March stakeholder meetings were contentious with significant opposition to the Reliability Energy/Capacity products. NCPA's cost allocation concerns still have not yet been addressed and we will express such concerns in the next round of comments. Fall 2021 implementation is unlikely for this initiative as well. Seems as if all timelines should be reassessed once the new CAISO CEO is onboard.

<u>Maximum Import Capability Stabilization</u>

- MIC required for resource adequacy imports. NCPA Load-Following MSS is exempt from MIC, however, CAISO assigns NCPA's pre-RA contracts MIC in order to force it to fit its model. In comments, NCPA is advocating for pre-RA contracts and extension of such contracts to maintain grandfathering treatment in MIC allocation process.

<u>Transmission Access Charge Structure Enhancements</u>

- 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 determinate consisting of volumetric and peak demand functions 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 comparted to high load factor areas. It received general support from the market and will be presented to the CAISO board in Q4 2020 or 2021. 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-19	95,615	81,155	(14,460)	$2,134,816	$ 26.31	$ (0.02)	$ 30.98
Aug-19	75,245	78,474	3,229	$2,134,816	$ 27.20	$ (0.02)	$ 30.65
Sep-19	46,290	47,422	1,133	$2,049,840	$ 43.23	$ (0.17)	$ 31.31
Oct-19	23,193	54,290	31,097	$962,107	$ 17.72	$ 0.06	$ 30.64
Nov-19	7,602	29,611	22,009	$962,107	$ 32.49	$ 0.04	$ 30.47
Dec-19	6,564	20,786	14,222	$582,148	$ 28.01	$ 0.11	$ 29.95
Jan-20	9,331	7,749	(1,582)	$582,148	$ 75.13	$ 0.15	$ 29.75
Feb-20	17,163	19,458	2,295	$769,511	$ 39.55	$ (0.00)	$ 29.59
Mar-20	27,643	34,397	6,754	$962,107	$ 27.97	$ 0.03	$ 28.70
Apr-20	52,877	-	(52,877)	$1,826,020	$ 34.53	$ -	$ 28.00
May-20	84,464	-	(84,464)	$1,826,020	$ 21.62	$ -	$ 28.16
Jun-20	90,039	-	(90,039)	$1,826,020	$ 20.28	$ -	$ 28.04
1/	As forecasted in NCPA 19/20 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 34,397 MWh Base Resource (BR) energy in March 2020. This includes 2,402 MWh of Displacement Energy for an estimated savings of $13,798 or about $5.70/MWh.
- Pool Members' total savings under Market Efficiency Enhancement Agreement (MEEA) for Pool Members was approximately $900 in March 2020. FY 2020 so far shows a net MEEA savings of $490. There has been a few months with negative savings due to lower congestion prices for import at COTP as opposed to MEEA prices. Despite MEEA Benefits are negative June 2019 through September 2019 and February 2020, there are significant benefits for MEEA prices since the program started in December 2015. NCPA will continue to closely monitor MEEA Benefits.

2025 Base Resource Contract

- The contract service period beings January 1, 2025 and shall remain in effect through December 31, 2054, subject to prior termination. The contract permits termination or reduction of Base Resource share for any reason through June 30, 2024.
- Publication of the final contract has been delayed until May 2020 due to the COVID-19 work interruption. WAPA's tentative schedule show each entity will have six months to sign the contract.

FY2020 Power Revenue Requirement (PRR) Mid-Year Adjustment

- On March 23, 2020 WAPA published the mid-year adjustment for FY2020 PRR. The PRR was reduced by nearly $10.8 million. The decrease is the result of the recently finalized CVP Cost Allocation Study, which reduced CVP preference power

customer's capital repayment obligation by $32 million. WAPA applied the $10 million credit to the PRR this fiscal year. WAPA anticipates to apply the remainder of the $32 million credit to capital in future fiscal years. The amount for each year is yet to be determined.

- The BR Revenue Requirement for NCPA Pool Members is reduced by 18%, approximately $1.9 million total for 6 months.

Interconnection Affairs

PG&E Update

Permanent Inter-Tie switch Between Geo Plants 1 and 2

- NCPA has approached the CAISO to discuss a long term solution to mitigate frequency of transmission induced outages at Geo. NCPA proposes to install a permanent no load intertie switch between Geo Plants 1 and 2 to use when either the Fulton or Lakeville line is out of service. NCPA will discuss with CAISO first to see if this scheme is a possibility. If the CAISO agrees, NCPA will then approach PG&E to seek by-in and amend the three (NCPA-CAISO-PG&E) party Generator Interconnection Agreements.

- CAISO confirmed the proposed scheme is possible. Next step is to have a three party discussion with PG&E.

TO-20 Rate Case

- Partial settlement was filed at FERC towards the end of March, 2020. Key items not settled are ROE, Capital Structure, and Depreciation.

- FERC 890 case/PG&E's self-approved projects case is now part of the TO-20 settlement. CPUC and Joint Interveners have proposed a Stakeholder Transmission Asset Review (STAR) Process as an appendix to the TO-20 settlement. STAR was finalized and filed at FERC for approval as part of the partial settlement in TO-20.

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. Pending the outcome of the capacity discussion, NCPA and SVP will look at next steps. More updates will be provided to members they become available.

Transmission Planning BPM Updated Modeling Data Submittal

- CAISO is requiring Generators to submit updated modeling data to ensure CASIO has current and accurate system information.

- NCPA has submitted updated data and power flow models for all Hydro and Geo Units, along with Alameda CT's and STIG. LEC data was submitted to CAISO on March 30, 2020.

Debt and Financial Management

- The world is facing a pandemic and these are extraordinary times. On March 2nd, the Federal Reserve took the emergency step of cutting interest rates by half a percentage point in an attempt to limit the economic and financial fallout from the coronavirus. The Fed had not made a cut like that since late 2008, shortly after the collapse of Lehman. Unfortunately, this move was not enough and less than two weeks later, the Federal Reserve made an extraordinary move to safeguard the economy by slashing its benchmark interest rate to near 0%. In addition, the Fed has relaunched its quantitative easing program and will buy $700 billion worth of assets that entail Treasuries and mortgage-backed securities.

- This financial turmoil will start to impact the reset rates on the 2008A Hydroelectric bonds. Similar to 2008, liquidity issues are beginning to impact the financial markets causing the reset rates to climb higher in order to attract investors. If there are no investors, the bonds are 'put' back to the letter of credit bank (Bank of America). Per the agreement, the rate charged will be approximately 7% and can climb as high as 12% with a prolonged disruption. NCPA staff will continue to monitor.

Schedule Coordination Goals

Software Development

- Technology upgrade and development of the NADS application is in progress. The go-live date is scheduled to coincide with the MSG rollout for LEC.

- IS Staff is providing support for activities related to the COVID-19 to ensure that all schedule apps remain accessible for both internal and external access.

- IS Staff continues to work on enhancements pertaining to the Risk Management application. New capabilities are being developed for RPS reporting.

- Review of the current Accounting Business Process may be delayed again due to the COVID-19 activities but the intended upgrade of the main accounting system, Microsoft Dynamics GP is still anticipated to be completed middle of next year.

Network

- Progress continues to be made upgrading staff to Windows 10 with over 85% of the Agency on the new Operating System. IS Staff are working with individual departments to upgrade the few remaining Windows 7 machines and anticipate to be completed in the coming weeks.

- The Ops and Support group has been working alongside Power Management and Settlements in preparation for the CAISO MSG market simulation later this year. Part of this effort will include enhancements to SCADA control logic for LEC configurations along with updating dispatch control center screens.

- IS is working with Generation Services, Power Management and CAISO to implement needed changes to accommodate the shoofly work being performed at the Geothermal plant. This includes modeling changes to our SCADA system along with how meter data values are represented within our business applications.

- IS has begun to work alongside Compliance to prepare to meet the CIP medium impact requirements. Policy and procedures are being drafted in preparation for first review by the Compliance Working Group by spring of this year.

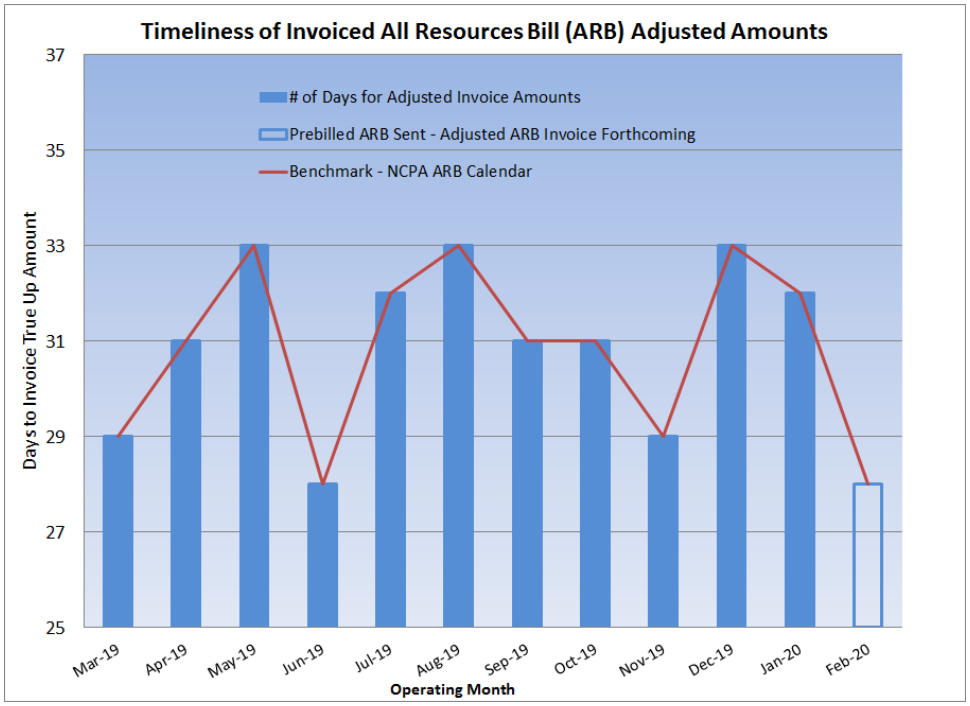
NCPA Bills & Settlements

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 February 2020 NCPA All Resources Bill (ARB) monthly invoice sent to members on January 26, 2020 contains:

- February 2020 monthly pre-billed budget/forecast amounts;
- December 2019 (1st Adjustment) NCPA Project and CAISO Initial settlement true-ups;
- November 2019 (2nd Adjustment) NCPA Project settlement true-up and T+12 business day recalculated CAISO settlement true-up allocations;
- September 2019 (3rd Adjustment) T+55 business day recalculated CAISO settlement true-up allocations and NCPA Projects true-up;
- March 2019 (4th Adjustment) T+9 month recalculated CAISO settlement true-up allocations;
- May 2018 (5th Adjustment) T+18 month recalculated CAISO settlement true-up allocations;
- February 2017 (6th Adjustment) T+33 month recalculated CAISO settlement true-up;
- November 2016 (7th Adjustment) T+35 month CAISO settlement true-up;



Legislative & Regulatory

Political Arena State/Federal/Western Programs

The State Legislature extended its joint recess from April 13th until May 4th as a result of updated guidance from state health officials. NCPA continues to analyze legislation and collect feedback to inform positions, as well as discuss concerns about pending

The The Governor's May Revision of the State Budget will likely include an overhaul of previous proposals, now focusing on COVID-19 response. The Legislature must pass the State Budget by June 15, and the new budget will become effective on July 1.

Western Area Power Administration (WAPA) extended their timeline to mail the 2025 CVP Base Resource contracts until at least May 2020. Citing COVID-19 stay-at-home order and guidelines, the original contract distribution date, March 31, is now delayed. Since the requirement to execute 2025 CVP Base Resource contracts within six months is triggered when WAPA distributes the contracts, the customers' contract execution date will move into the October 2020 timeframe.

In late March, WAPA also announced a significant reduction to the CVP power rate, dropping the initial rate estimate from $79.6 million to $68.8 million for the rate period beginning October 1, 2019, to September 30, 2020. WAPA's aptly-timed decrease is the result of the recently finalized CVP Cost Allocation Study, which reduced CVP preference power customers' CVP capital repayment obligation by $32 million. WAPA plans to apply the remaining capital repayment reduction—$22 million—in future power rates. In a separate action, we await Reclamation's determination on the CVPIA True-up amount—currently $34 million—and, when final, may provide additional rate reductions.

Federal Legislative Update

As of early March, following the passage of the first coronavirus supplemental bill and the President's national emergency declaration concerning the coronavirus disease COVID-19, Congress has suspended all public business, visits, and meetings to focus solely on debate and passage of economic stimulus bills to help provide aid to combat the virus and bolster the economy. The second and third stimulus bill—the Families First Coronavirus Response Act and the Coronavirus Aid, Relief, and Economic Security Act—have impacts on our members including new costs for paid leave without payroll tax credits provided to offset these same costs for private employers, and possible new federal power program costs. As well, the with suspended power-shut offs, NCPA is working with our congressional delegation and the National League of Cities to seek access to the new federal Economic Stabilization funds for public power systems faced with financial challenges related to a loss of revenue due to COVID-19. As Congress contemplates additional economic stimulus measures to further offset the financial impacts caused by COVID-19, we will continue to work with our state, regional, and national partners to urge members of our delegation to include provisions in federal legislation that address our members' immediate concerns.

Human Resources

Hires:

Mojtaba Khanabadi was hired as an Energy Resources Analyst V effective February 24, 2020. Mojtaba comes from the California Independent System Operator (CASIO) where he worked as a Power Systems Engineer. Mojtaba holds a Ph.D. in Electrical and Computer Engineering, a Masters in Business Administration and a Masters in Electrical and Computer Engineering.

Elizabeth Gonzalez joined the HR team as the Human Resources Manager effective March 16, 2020. She brings over 12 years of HR experience specific to the public sector and possesses particular expertise in the areas of recruitment, talent management, and organizational development. Elizabeth spent the last nine years with the Department of Water Resources responsible for providing a wide range of HR services in a fast-paced environment.

Intern Hires:

None.

Promotions/Position Changes:

Gordon Loyd was promoted to an Engineer II and transferred to our Lodi Energy Center effective March 29, 2020. Gordon has been with NCPA since June 15, 2015.

Separations:

The late Bob Young, Superintendent, Generation Resources, retired from his position at our Geothermal Facilities after nearly 10 years of service with NCPA, effective March 12, 2020.

John Jones, Operator Technician IV, retired from his position at our Geothermal Facilities after nearly 28 years of service with NCPA, effective March 12, 2020.

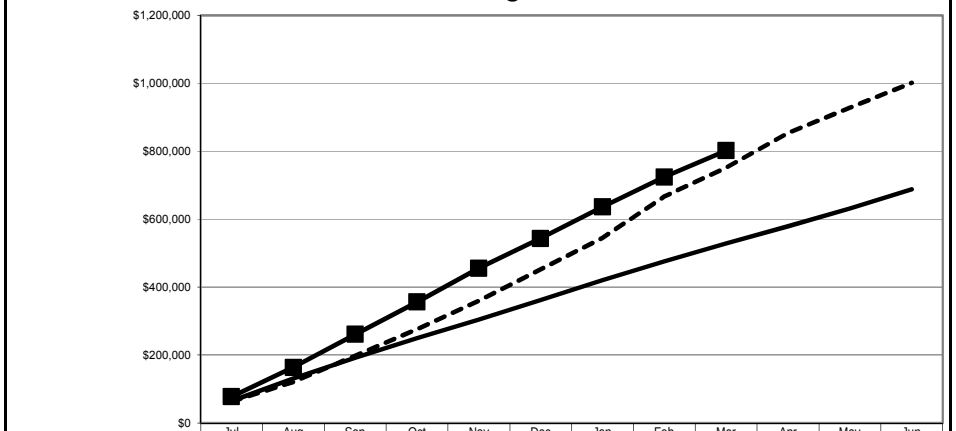
Annual Budget
2019-2020 Fiscal Year To Date
As of March 31, 2020

In Thousands

	Program			
	Annual Budget	Actual	Under(Ovr) Budget	YTD % Remaining
GENERATION RESOURCES				
NCPA Plants				
Hydroelectric	54,074	39,006	$ 15,068	28%
Geothermal Plant	35,311	26,721	8,590	24%
Combustion Turbine No. 1	6,170	4,390	1,780	29%
Combustion Turbine No. 2 (STIG)	9,438	6,889	2,550	27%
Lodi Energy Center	92,960	71,529	21,431	23%
	197,953	148,534	49,419	25%
Member Resources - Energy	56,229	45,744	10,485	19%
Member Resources - Natural Gas	3,541	3,321	220	6%
Western Resource	23,325	15,395	7,930	34%
Market Power Purchases	15,123	17,997	(2,874)	-19%
Load Aggregation Costs - ISO	256,030	459,634	(203,604)	-80%
Net GHG Obligations	497	2,556	(2,059)	-414%
	552,698	693,181	(140,483)	-25%
TRANSMISSION				
Independent System Operator	117,089	105,101	11,988	10%
MANAGEMENT SERVICES				
Legislative & Regulatory				
Legislative Representation	2,132	1,452	680	32%
Regulatory Representation	748	495	253	34%
Western Representation	745	445	300	40%
Customer Programs	424	195	229	54%
	4,049	2,588	1,462	36%
Judicial Action	625	414	211	34%
Power Management				
System Control & Load Dispatch	6,082	4,420	1,663	27%
Forecasting & Prescheduling	2,934	1,824	1,111	38%
Industry Restructuring	414	271	144	35%
Contract Admin, Interconnection Svcs & Ext. Affairs	954	692	262	27%
Gas Purchase Program	77	47	30	39%
Market Purchase Project	111	66	46	41%
	10,573	7,319	3,254	31%
Energy Risk Management	212	109	102	48%
Settlements	980	584	395	40%
Integrated System Support	243	41	203	83%
Participant Pass Through Costs	1,560	837	724	46%
Support Services	-	1,178	(1,178)	
	18,243	13,069	5,174	28%
TOTAL ANNUAL BUDGET COST	688,030	811,352	(123,321)	-18%
LESS: THIRD PARTY REVENUE				
Plant ISO Energy Sales	127,624	64,221	63,402	50%
Member Resource ISO Energy Sales	29,156	20,853	8,304	28%
Member Owned Generation ISO Energy Sales	67,108	50,111	16,996	25%
NCPA Contracts ISO Energy Sales	15,623	13,806	1,817	12%
Western Resource ISO Energy Sales	18,304	15,255	3,050	17%
Load Aggregation Energy Sales	-	265,074	(265,074)	
Ancillary Services Sales	4,197	4,499	(302)	-7%
Transmission Sales	110	83	28	25%
Western Credits, Interest & Other Income	19,227	79,824	(60,597)	-315%
	281,350	513,726	(232,375)	-83%
NET ANNUAL BUDGET COST TO PARTICIPANTS	406,680	297,626	$ 109,054	27%

In Thousands

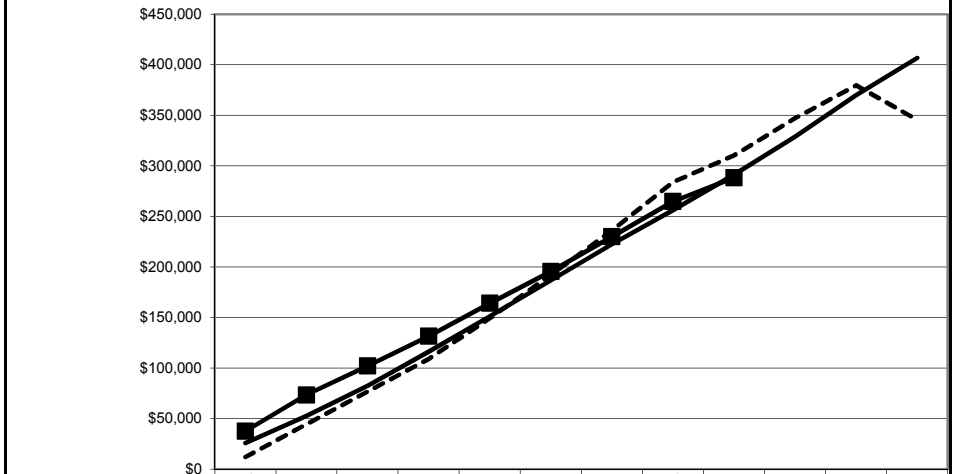
Annual Budget Cost



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$64,891	$131,522	$192,999	$250,201	$304,618	$361,780	$420,917	$475,948	$528,756	$578,747	$631,574	$688,030
FY 19 Actual	$63,553	$121,408	$198,335	$276,168	$360,407	$452,972	$545,265	$667,517	$751,832	$853,506	$928,181	$1,001,3
FY 20 Actual	$77,768	$164,232	$261,543	$356,663	$456,078	$543,531	$636,428	$724,707	$802,068			

In Thousands

Net Annual Budget Cost to Participants

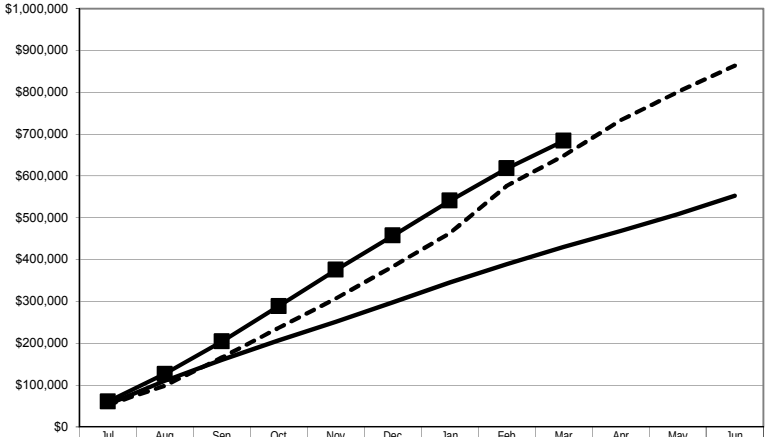


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$25,871	$52,668	$82,467	$116,217	$151,257	$186,673	$222,399	$256,326	$291,457	$328,685	$369,774	$406,680
FY 19 Actual	$11,955	$44,549	$76,828	$109,135	$149,357	$192,075	$235,887	$283,765	$310,479	$347,146	$379,656	$345,575
FY 20 Actual	$37,551	$73,476	$102,181	$131,597	$164,211	$195,604	$230,035	$264,827	$288,342			

Annual Budget
Budget vs. Actual By Major Area
As of March 31, 2020

In Thousands

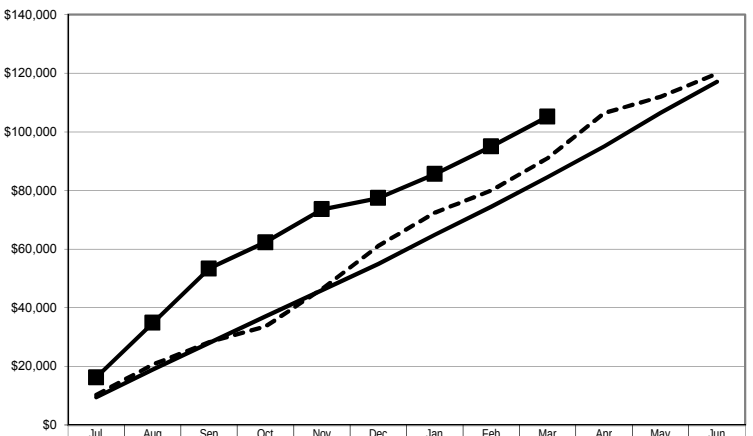
Generation Resources



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$53,901	$109,577	$160,541	$207,155	$251,102	$297,774	$345,322	$389,360	$430,481	$468,531	$508,391	$552,698
FY 19 Actual	$52,459	$98,414	$166,029	$237,122	$307,103	$383,425	$462,967	$576,569	$648,144	$733,140	$800,901	$863,745
FY 20 Actual	$60,271	$126,555	$204,204	$288,725	$375,372	$457,524	$540,710	$617,986	$683,904			

In Thousands

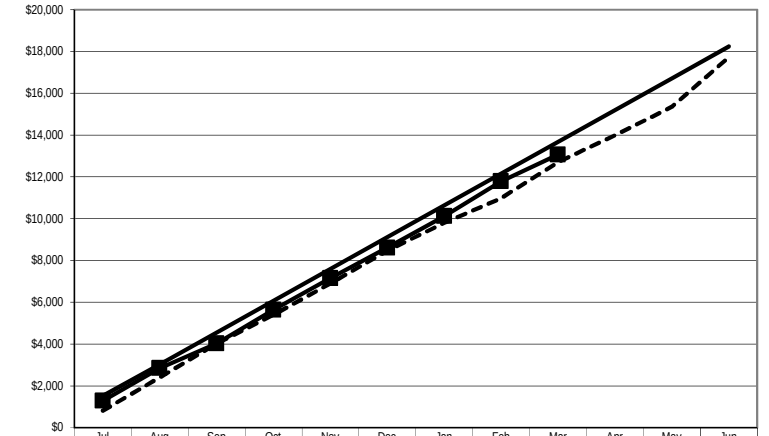
Transmission-ISO



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$9,470	$18,905	$27,897	$36,965	$45,914	$54,885	$64,953	$74,426	$84,593	$95,013	$106,460	$117,089
FY 19 Actual	$10,278	$20,580	$28,273	$33,646	$46,400	$61,084	$72,491	$79,965	$90,983	$106,374	$111,929	$119,864
FY 20 Actual	$16,211	$34,827	$53,305	$62,290	$73,544	$77,396	$85,596	$94,930	$105,101			

In Thousands

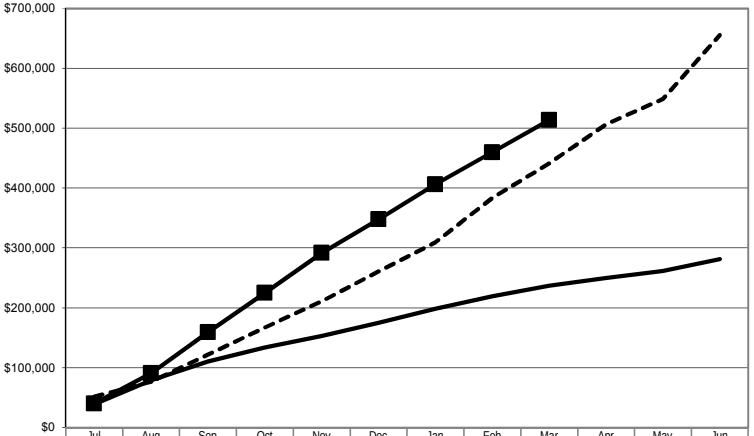
Management Services



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$1,520	$3,041	$4,561	$6,081	$7,601	$9,122	$10,642	$12,162	$13,682	$15,203	$16,723	$18,243
FY 19 Actual	$816	$2,414	$4,033	$5,400	$6,904	$8,463	$9,807	$10,983	$12,706	$13,992	$15,351	$17,726
FY 20 Actual	$1,286	$2,850	$4,034	$5,647	$7,161	$8,611	$10,122	$11,791	$13,063			

In Thousands

Third Party Revenue



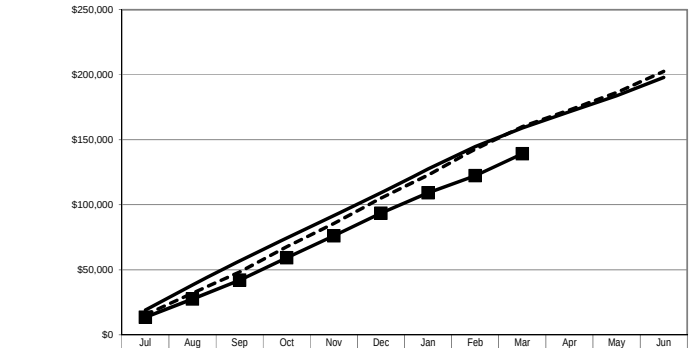
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$39,020	$78,853	$110,532	$133,984	$153,360	$175,108	$198,517	$219,622	$237,299	$250,062	$261,800	$281,350
FY 19 Actual	$51,598	$76,859	$121,507	$167,033	$211,049	$260,897	$309,378	$383,752	$441,354	$506,360	$548,526	$655,760
FY 20 Actual	$40,218	$90,756	$159,361	$225,066	$291,867	$347,927	$406,393	$459,880	$513,726			

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

Annual Budget Cost
Generation Resources Analysis By Source
As of March 31, 2020

NCPA Plants

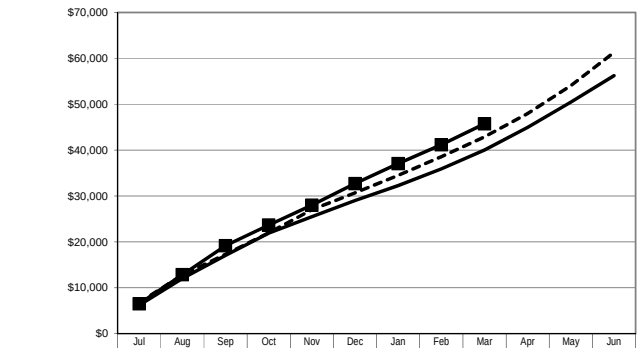
In Thousands



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$19,050	$38,415	$57,018	$74,438	$91,513	$109,446	$127,564	$144,736	$159,191	$171,539	$183,934	$197,953
FY 19 Actual	$15,505	$32,170	$48,356	$67,829	$85,681	$105,177	$122,893	$142,833	$160,156	$172,979	$186,383	$202,593
FY 20 Actual	$13,547	$27,561	$42,100	$59,310	$76,167	$93,568	$109,273	$122,423	$139,257			

Member Resources - Energy

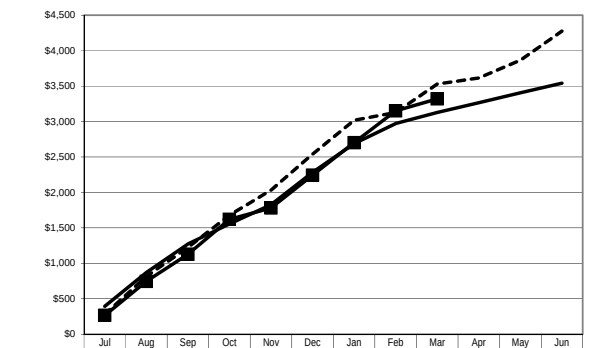
In Thousands



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$6,226	$12,048	$17,084	$21,906	$25,515	$29,027	$32,285	$35,918	$40,027	$44,957	$50,466	$56,229
FY 19 Actual	$6,833	$12,799	$17,335	$21,987	$27,023	$30,686	$34,508	$38,584	$42,886	$47,975	$54,053	$61,277
FY 20 Actual	$6,529	$12,860	$19,187	$23,656	$28,008	$32,708	$37,065	$41,179	$45,744			

Member Resources - Natural Gas

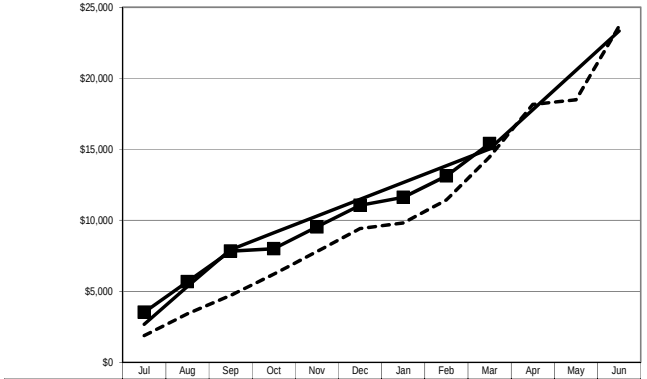
In Thousands



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$395	$872	$1,272	$1,554	$1,828	$2,285	$2,691	$2,971	$3,128	$3,265	$3,404	$3,541
FY 19 Actual	$282	$817	$1,223	$1,680	$2,034	$2,541	$3,019	$3,127	$3,530	$3,614	$3,866	$4,276
FY 20 Actual	$267	$746	$1,128	$1,620	$1,781	$2,244	$2,703	$3,150	$3,321			

Western Resources

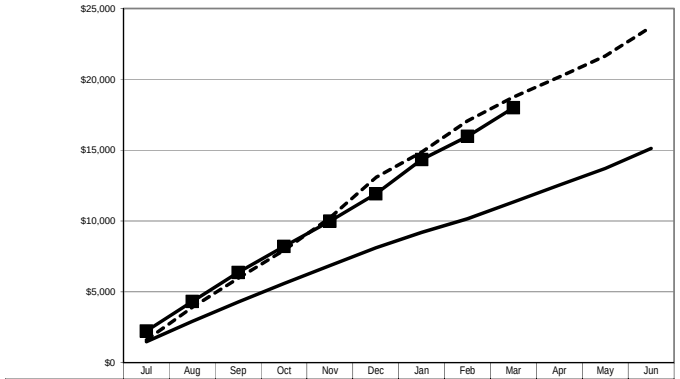
In Thousands



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$2,672	$5,336	$7,929	$9,115	$10,295	$11,474	$12,655	$13,838	$15,026	$17,783	$20,553	$23,325
FY 19 Actual	$1,876	$3,410	$4,702	$6,208	$7,791	$9,416	$9,805	$11,433	$14,459	$18,152	$18,477	$23,669
FY 20 Actual	$3,519	$5,678	$7,827	$7,991	$9,523	$11,046	$11,611	$13,119	$15,395			

Market Power Purchases

In Thousands



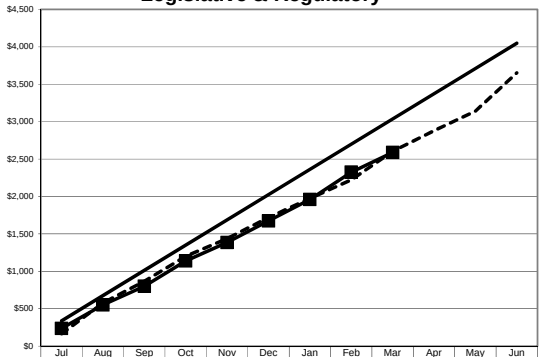
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$1,488	$2,928	$4,292	$5,599	$6,866	$8,120	$9,203	$10,155	$11,350	$12,543	$13,716	$15,123
FY 19 Actual	$1,607	$3,902	$5,965	$7,940	$10,244	$13,071	$14,866	$17,068	$18,755	$20,175	$21,658	$23,702
FY 20 Actual	$2,238	$4,328	$6,373	$8,208	$9,996	$11,926	$14,343	$15,977	$17,997			

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

Annual Budget Cost
Management Services Analysis By Source
As of March 31, 2020

In Thousands

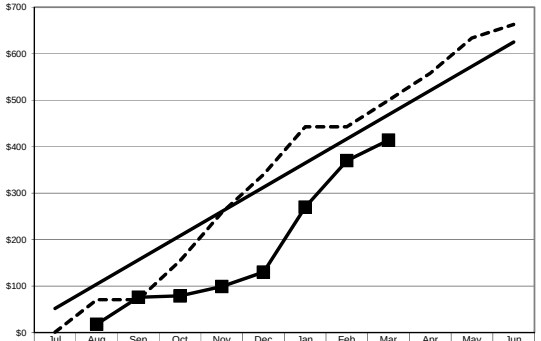
Legislative & Regulatory



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$337	$675	$1,012	$1,350	$1,687	$2,025	$2,362	$2,699	$3,037	$3,374	$3,712	$4,049
FY 19 Actual	$165	$576	$867	$1,200	$1,438	$1,717	$1,974	$2,222	$2,604	$2,879	$3,141	$3,652
FY 20 Actual	$236	$550	$801	$1,138	$1,386	$1,674	$1,960	$2,325	$2,588			

In Thousands

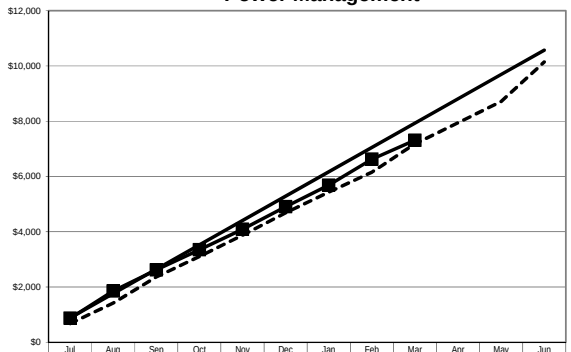
Judicial Action



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$52	$104	$156	$208	$260	$313	$365	$417	$469	$521	$573	$625
FY 19 Actual	$1	$71	$71	$155	$258	$340	$443	$443	$500	$558	$634	$663
FY 20 Actual		$18	$76	$79	$99	$130	$270	$370	$414			

In Thousands

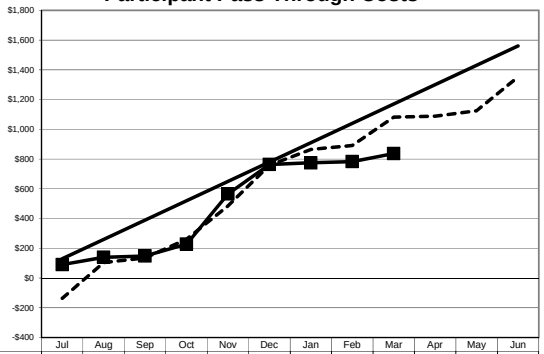
Power Management



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$881	$1,762	$2,643	$3,524	$4,405	$5,287	$6,168	$7,049	$7,930	$8,811	$9,692	$10,573
FY 19 Actual	$676	$1,422	$2,366	$3,108	$3,877	$4,686	$5,432	$6,157	$7,179	$7,948	$8,718	$10,144
FY 20 Actual	$869	$1,858	$2,622	$3,350	$4,092	$4,907	$5,685	$6,626	$7,313			

In Thousands

Participant Pass Through Costs

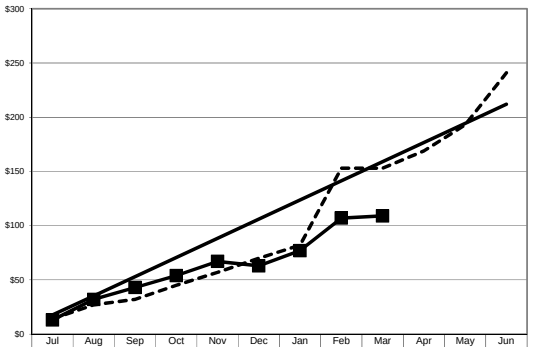


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$130	$260	$390	$520	$650	$780	$910	$1,040	$1,170	$1,300	$1,430	$1,560
FY 19 Actual	$(136)	$104	$136	$261	$485	$758	$865	$891	$1,082	$1,088	$1,125	$1,352
FY 20 Actual	$91	$140	$149	$228	$566	$764	$775	$783	$837			

Annual Budget Cost
Management Services Analysis By Source
As of March 31, 2020

In Thousands

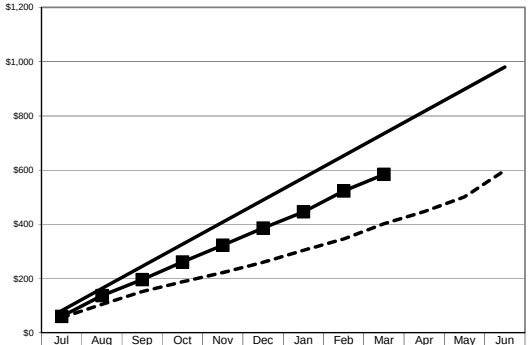
Energy Risk Management



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$18	$35	$53	$71	$88	$106	$124	$141	$159	$177	$194	$212
FY 19 Actual	$14	$27	$32	$45	$57	$70	$82	$153	$153	$169	$193	$241
FY 20 Actual	$13	$32	$43	$54	$67	$63	$77	$107	$109			

In Thousands

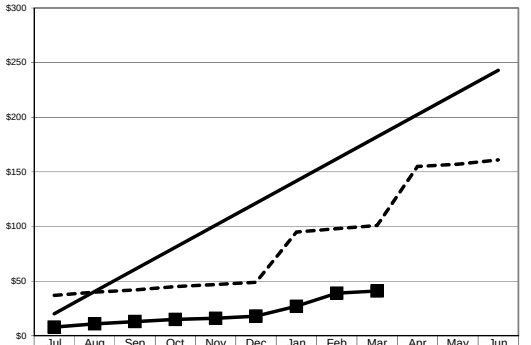
Settlements



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$82	$163	$245	$327	$408	$490	$572	$653	$735	$817	$898	$980
FY 19 Actual	$56	$105	$152	$188	$222	$260	$304	$346	$402	$447	$501	$599
FY 20 Actual	$60	$137	$196	$261	$323	$386	$446	$523	$584			

In Thousands

Integrated Systems Support

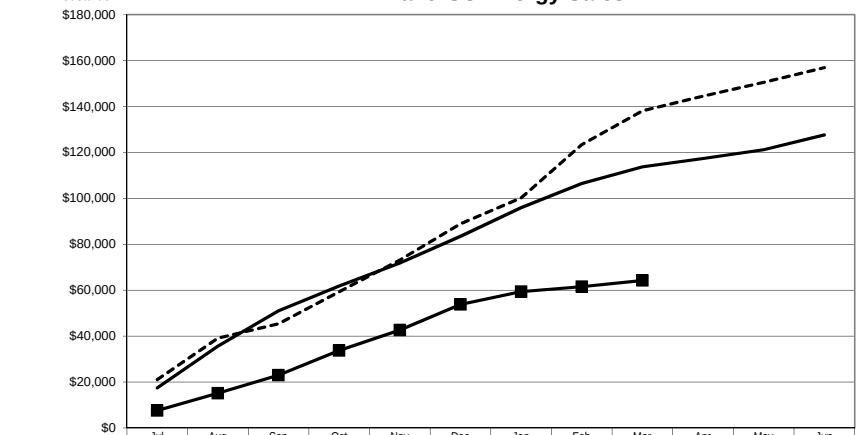


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$20	$41	$61	$81	$101	$122	$142	$162	$182	$203	$223	$243
FY 19 Actual	$37	$40	$42	$45	$47	$49	$95	$98	$101	$155	$157	$161
FY 20 Actual	$8	$11	$13	$15	$16	$18	$27	$39	$41			

Annual Budget Cost
Third Party Revenue Analysis By Source
As of March 31, 2020

Plant ISO Energy Sales

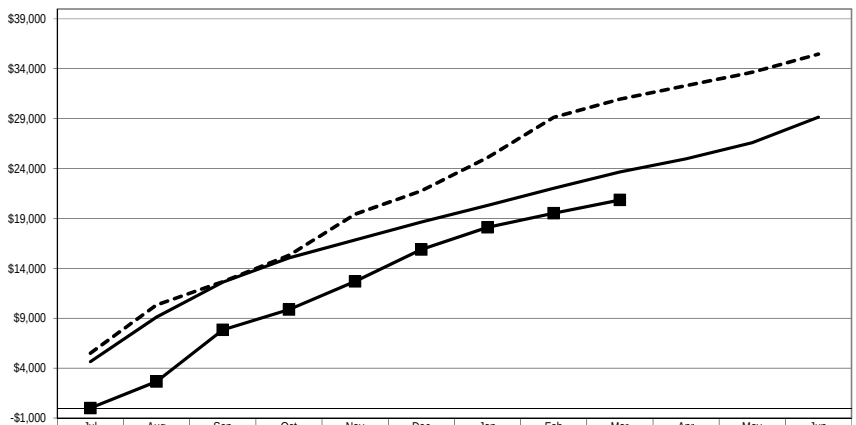
In Thousands



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$17,452	$35,598	$51,017	$61,781	$71,857	$83,514	$95,920	$106,509	$113,742	$117,326	$121,182	$127,624
FY 19 Actual	$21,050	$39,072	$45,395	$59,335	$73,164	$88,909	$100,220	$123,435	$138,094	$144,504	$150,538	$156,912
FY 20 Actual	$7,599	$15,146	$22,997	$33,715	$42,684	$53,819	$59,408	$61,524	$64,221			

Member Resource ISO Energy Sales

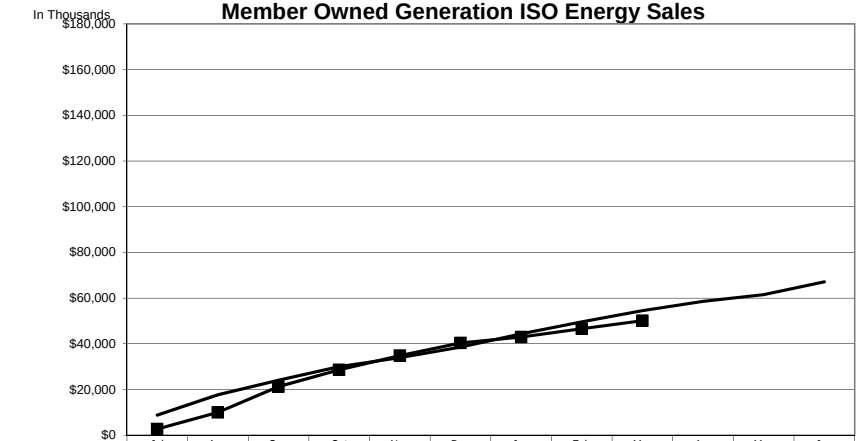
In Thousands



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$4,655	$9,117	$12,609	$15,058	$16,845	$18,646	$20,319	$22,022	$23,664	$24,972	$26,599	$29,156
FY 19 Actual	$5,502	$10,342	$12,667	$15,316	$19,426	$21,778	$25,106	$29,133	$30,959	$32,300	$33,660	$35,471
FY 20 Actual	$-	$2,659	$7,838	$9,868	$12,697	$15,882	$18,117	$19,528	$20,853			

Member Owned Generation ISO Energy Sales

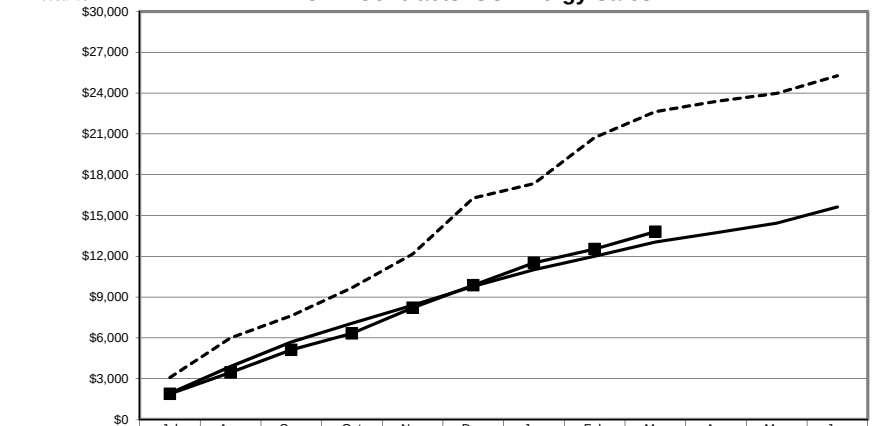
In Thousands



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$8,818	$17,720	$24,050	$29,987	$33,910	$38,572	$44,374	$49,649	$54,549	$58,616	$61,541	$67,108
FY 19 Actual												
FY 20 Actual	$2,693	$9,993	$21,258	$28,586	$34,870	$40,375	$42,960	$46,606	$50,111			

NCPA Contracts ISO Energy Sales

In Thousands

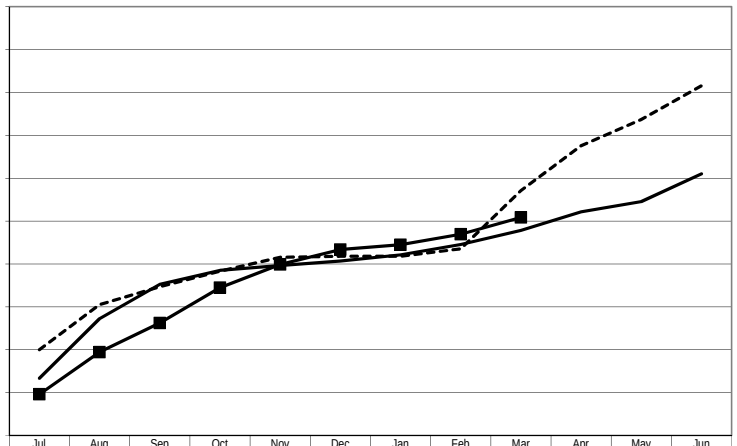


	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$1,917	$3,887	$5,697	$7,067	$8,398	$9,788	$11,014	$12,006	$13,044	$13,727	$14,439	$15,623
FY 19 Actual	$3,080	$5,995	$7,617	$9,687	$12,161	$16,283	$17,346	$20,728	$22,641	$23,389	$23,979	$25,276
FY 20 Actual	$1,880	$3,451	$5,120	$6,331	$8,214	$9,875	$11,512	$12,530	$13,806			

Annual Budget Cost
Third Party Revenue Analysis By Source
As of March 31, 2020

In Thousands

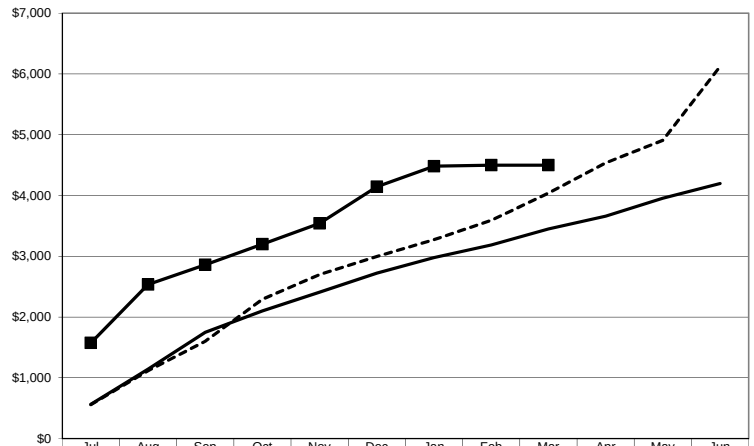
Western Resource ISO Energy Sales



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$4,001	$8,165	$10,574	$11,542	$11,885	$12,195	$12,632	$13,359	$14,348	$15,646	$16,358	$18,304
FY 19 Actual	$5,997	$9,148	$10,400	$11,489	$12,465	$12,529	$12,535	$13,062	$17,130	$20,266	$22,108	$24,468
FY 20 Actual	$2,878	$5,828	$7,864	$10,340	$11,956	$13,001	$13,344	$14,076	$15,255			

In Thousands

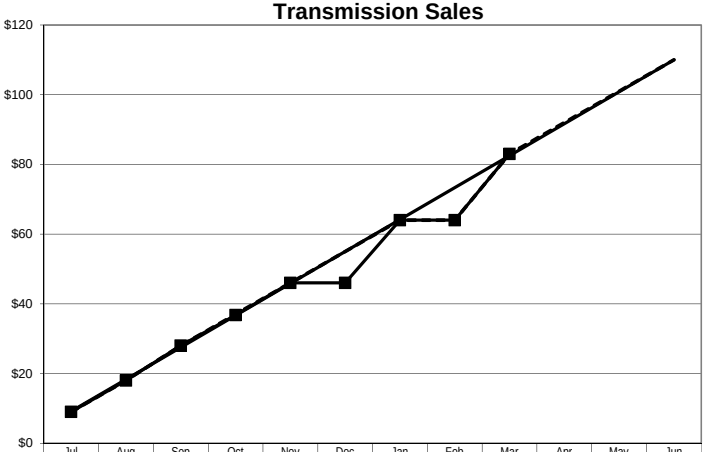
Ancillary Services Sales



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$565	$1,144	$1,750	$2,103	$2,409	$2,723	$2,977	$3,186	$3,449	$3,661	$3,955	$4,197
FY 19 Actual	$558	$1,117	$1,601	$2,293	$2,700	$2,997	$3,272	$3,591	$4,039	$4,537	$4,909	$6,122
FY 20 Actual	$1,575	$2,536	$2,860	$3,200	$3,543	$4,144	$4,482	$4,499	$4,499			

In Thousands

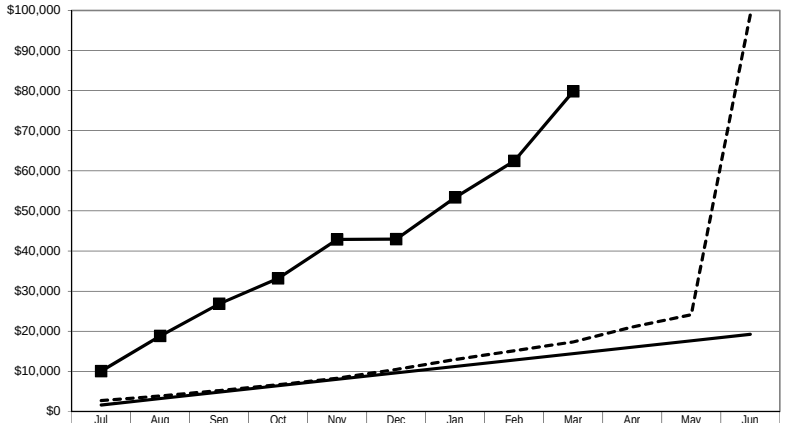
Transmission Sales



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$9	$18	$28	$37	$46	$55	$64	$73	$83	$92	$101	$110
FY 19 Actual	$9	$18	$28	$37	$46	$55	$64	$64	$83	$92	$101	$110
FY 20 Actual	$9	$18	$28	$37	$46	$46	$64	$64	$83			

In Thousands

Western Credits, Interest & Other Income



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Budget	$1,602	$3,205	$4,807	$6,409	$8,011	$9,614	$11,216	$12,818	$14,421	$16,023	$17,625	$19,227
FY 19 Actual	$2,696	$3,834	$5,221	$6,652	$8,284	$10,456	$12,944	$15,155	$17,336	$21,059	$24,114	$98,965
FY 20 Actual	$10,053	$18,816	$26,846	$33,182	$42,871	$42,944	$53,372	$62,457	$79,824			

Annual Budget
NCPA Generation Detail Analysis By Plant
As of March 31, 2020

Generation Cost Analysis

$ in thousands

	Geothermal				
	Budget	Actual	$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	$ 18,456	$ 13,816	$ 29.24	$ 4,640	25%
Capital Assets/Spare Parts Inventories	3,645	3,104	6.57	541	15%
Other Costs	7,640	5,420	11.47	2,220	29%
CA ISO Charges	625	671	1.42	(46)	-7%
Debt Service	4,946	3,709	7.85	1,236	25%
Annual Budget	35,311	26,721	56.55	8,590	24%
Less: Third Party Revenue					
Interest Income	382	188	0.40	194	51%
ISO Energy Sales	29,481	15,809	33.46	13,672	46%
Ancillary Services Sales	-	-	-	-	
Effluent Revenues	750	578	1.22	172	23%
Misc	110	85	0.18	26	23%
	30,723	16,660	35.26	14,064	46%
Net Annual Budget Cost to Participants	$ 4,588	$ 10,061	$ 21.29	$ (5,473)	-119%
Net Generation--MWh @ Meter	776,885	472,531			
$/MWh (A)	$ (0.46)	$ 13.44			

	Hydroelectric				
	Budget	Actual	$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	$ 450	$ 5,977	$ 20.95	$ (5,527)	-1229%
Capital Assets/Spare Parts Inventories	4,775	3,519	12.34	1,256	26%
Other Costs	12,078	2,308	8.09	9,769	81%
CA ISO Charges	3,465	2,222	7.79	1,242	36%
Debt Service	33,307	24,980	87.57	8,327	25%
Annual Budget	54,074	39,006	136.74	15,068	28%
Less: Third Party Revenue					
Interest Income	670	373	1.31	297	44%
ISO Energy Sales	23,455	12,363	43.34	11,092	47%
Ancillary Services Sales	2,539	3,060	10.73	(521)	-21%
Misc	-	133	0.47	(133)	
	26,664	15,928	55.84	10,736	40%
Net Annual Budget Cost to Participants	$ 27,410	$ 23,078	$ 80.90	$ 4,332	
Net Generation--MWh @ Meter	508,897	285,255			
$/MWh (A)	$ (11.59)	$ (6.67)			

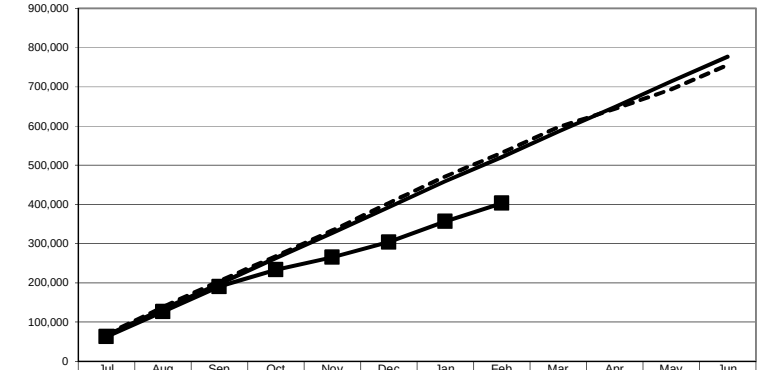
Footnotes:

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

MWhs Generated

In MWh

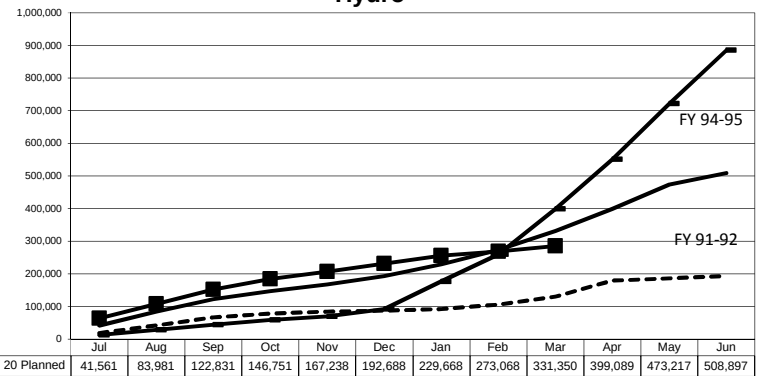
Geothermal



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Planned	66,514	132,923	197,082	263,276	327,234	393,212	459,078	520,597	586,167	648,901	713,647	776,885
FY 19 Actual	69,366	138,563	204,624	268,226	333,341	403,913	471,674	531,877	597,587	643,997	693,779	755,718
FY 20 Actual	62,860	126,632	190,620	233,369	265,479	303,995	356,834	403,044				

In MWh

Hydro



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Planned	41,561	83,981	122,831	146,751	167,238	192,688	229,668	273,068	331,350	399,089	473,217	508,897
Wet	12,676	28,667	44,047	58,599	69,461	91,796	176,896	259,973	398,950	551,071	721,320	885,279
Dry	18,574	41,592	66,527	78,750	84,000	87,598	91,693	105,353	130,546	179,718	185,948	193,288
FY 20 Actual	63,302	108,144	152,244	184,156	207,139	231,107	255,693	268,291	285,255			

Annual Budget
NCPA Generation Detail Analysis By Plant
As of March 31, 2020

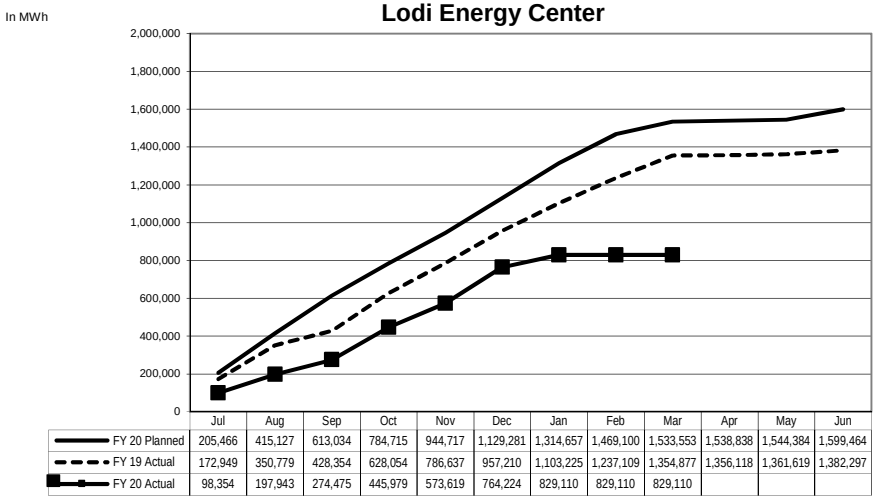
Generation Cost Analysis

	Lodi Energy Center				
	Budget	Actual	$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	$ 14,101	$ 9,551	$ 11.52	$ 4,550	32%
Fuel	39,513	20,530	24.76	18,984	48%
AB 32 GHG Offset	-	-	-	-	0%
CA ISO Charges and Energy Purchases	4,710	2,686	3.24	2,024	43%
Capital Assets/Spare Parts Inventories	5,333	16,602	20.02	(11,269)	-211%
Other Costs	3,249	2,619	3.16	630	19%
Debt Service	26,054	19,541	23.57	6,514	25%
Annual Budget	92,960	71,529	86.27	21,431	23%
Less: Third Party Revenue					
Interest Income	386	510	0.62	(124)	-32%
ISO Energy Sales	72,603	34,530	41.65	38,072	52%
Ancillary Services Sales	1,433	1,193	1.44	240	17%
Transfer Gas Credit	-	-	-	-	0%
Misc	-	14,783	17.83	(14,783)	0%
	74,421	51,015	61.53	23,405	31%
Net Annual Budget Cost to Participants	$ 18,539	$ 20,514	$ 24.74	$ (1,974)	-11%
Net Generation--MWh @ Meter	1,599,464	829,110			
$/MWh (A)	$ (4.70)	$ 1.17			

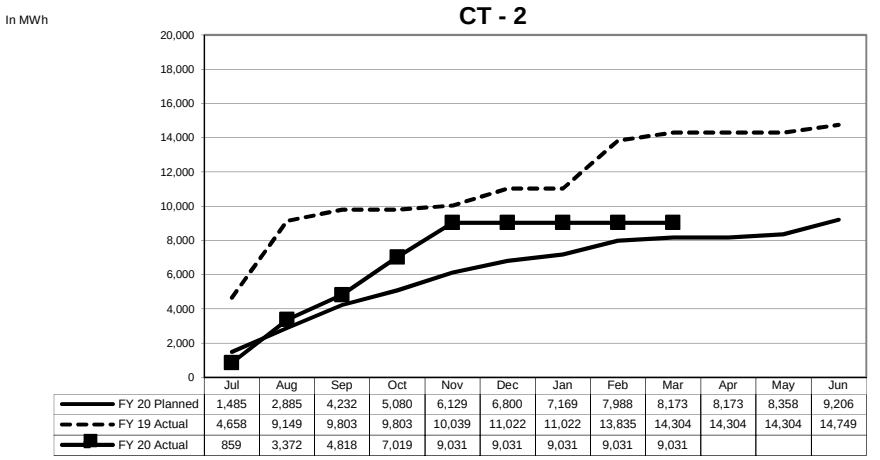
	Combustion Turbine No. 2 (STIG)				
	Budget	Actual	$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	$ 1,595	$ 1,021	$ 113.03	$ 575	36%
Fuel and Pipeline Transport Charges	1,089	813	90.00	276	25%
Capital Assets/Spare Parts Inventories	418	299	33.13	119	28%
Other Costs	486	331	36.70	155	32%
CA ISO Charges	53	77	8.55	(24)	-45%
Debt Service	5,796	4,347	481.39	1,449	25%
Annual Budget	9,438	6,889	762.80	2,550	27%
Less: Third Party Revenue					
Interest Income	109	82	9.13	26	24%
ISO Energy Sales	819	695	76.96	124	15%
Ancillary Service Sales	-	-	-	-	0%
Fuel and Pipeline Transport Credits	1,687	1,197	132.51	491	29%
Misc	-	-	-	-	0%
	2,615	1,974	218.60	641	25%
Net Annual Budget Cost to Participants	$ 6,823	$ 4,915	$ 544.20	$ 1,909	28%
Net Generation--MWh @ Meter	9,206	9,031			
$/MWh (A)	$ 111.53	$ 62.81			

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

MWhs Generated



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Planned	205,466	415,127	613,034	784,715	944,717	1,129,281	1,314,657	1,469,100	1,533,553	1,538,838	1,544,384	1,599,464
FY 19 Actual	172,949	350,779	428,354	628,054	786,637	957,210	1,103,225	1,237,109	1,354,877	1,356,118	1,361,619	1,382,297
FY 20 Actual	98,354	197,943	274,475	445,979	573,619	764,224	829,110	829,110	829,110			



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Planned	1,485	2,885	4,232	5,080	6,129	6,800	7,169	7,988	8,173	8,173	8,358	9,206
FY 19 Actual	4,658	9,149	9,803	9,803	10,039	11,022	11,022	13,835	14,304	14,304	14,304	14,749
FY 20 Actual	859	3,372	4,818	7,019	9,031	9,031	9,031	9,031	9,031			

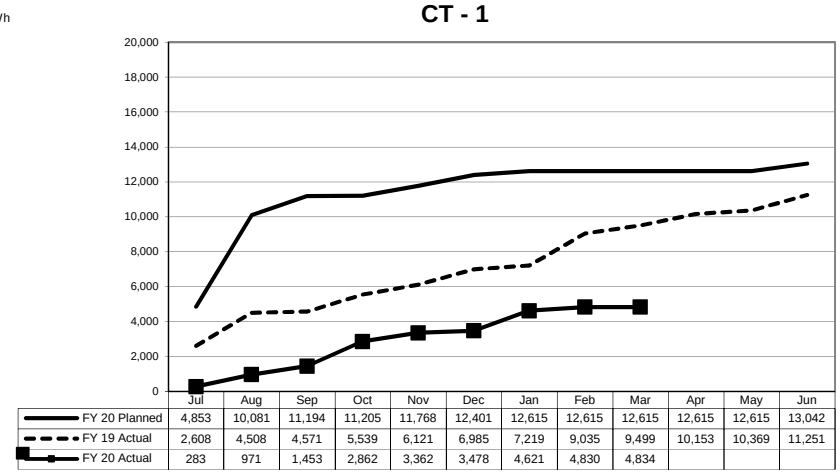
Annual Budget
NCPA Generation Detail Analysis By Plant
As of March 31, 2020

Generation Cost Analysis

	Combustion Turbine No. 1				
	Budget	Actual	$/MWh Actual	Under(Over) Budget	YTD % Remaining
Routine O & M	$ 2,268	$ 1,699	$ 351.59	$ 569	25%
Fuel and Pipeline Transport Charges	975	390	80.68	585	60%
Capital Assets/Spare Parts Inventories	2,110	1,598	330.67	512	24%
Other Costs	747	532	110.01	215	29%
CA ISO Charges	69	170	35.20	(101)	-145%
Debt Service	-	-		-	
Annual Budget	6,170	4,390	908.16	1,780	29%
Less: Third Party Revenue					
Interest Income	-	22		(22)	
ISO Energy Sales	1,266	824	170.50	442	35%
Ancillary Services Sales	-	-	-	-	0%
Misc	-	16	3.24	(16)	0%
	1,266	862	173.73	404	32%
Net Annual Budget Cost to Participants	$ 4,904	$ 3,528	$ 729.89	$ 1,376	28%
Net Generation--MWh @ Meter	13,042	4,834			
$/MWh (A)	$ 375.97	$ 729.89			

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

MWhs Generated



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY 20 Planned	4,853	10,081	11,194	11,205	11,768	12,401	12,615	12,615	12,615	12,615	12,615	13,042
FY 19 Actual	2,608	4,508	4,571	5,539	6,121	6,985	7,219	9,035	9,499	10,153	10,369	11,251
FY 20 Actual	283	971	1,453	2,862	3,362	3,478	4,621	4,830	4,834			