



# 2021

FY

Budget



# **STRATEGIC PLAN 2016 - 2021**

## **MISSION**

To provide our members cost effective wholesale power, energy-related services, and advocacy on behalf of public power consumers through joint action.

## **VISION**

To be the premier provider of energy services to public entities.

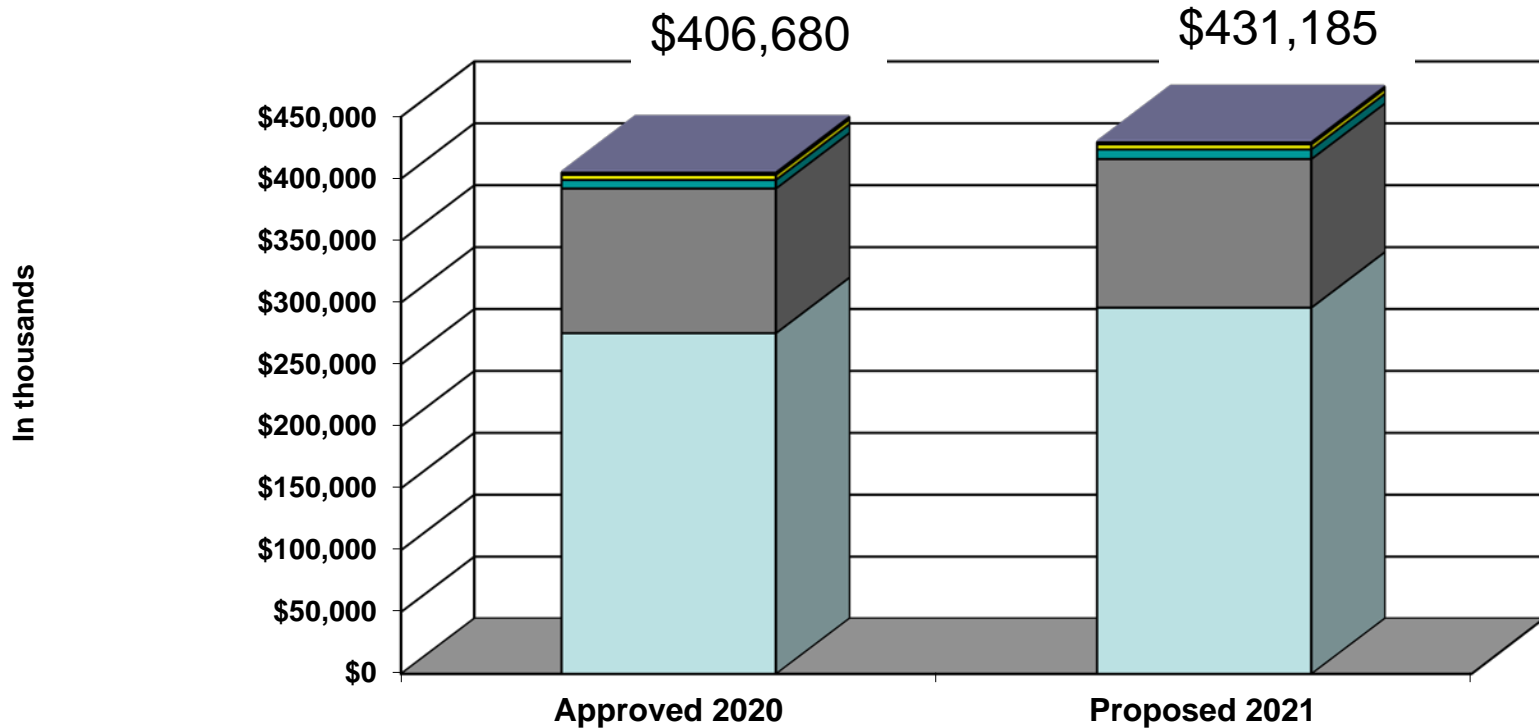
## **STRATEGIES**

- Attract, develop and retain professional, high quality staff.
- Maintain position as credible, solution-oriented coalition builder and leader in state and federal legislative and regulatory policy arenas.
- Develop and maintain diverse generation resource portfolio in accordance with renewable portfolio standard and capacity obligations.
- Protect, utilize and build on the strengths and unique aspects of JPA structure to benefit NCPA's members.
- Develop/maintain strategies to control costs and minimize risks while maximizing the value of assets.
- Maintain financial strength, grow new revenue and/or reduce member costs by exploring new members/participants and expansion of current services.
- Help articulate and promote the value of NCPA and public power utilities to member communities.

# Proposed Budget FY 2020-2021

## (net of revenues)

Proposed FY 2021 Budget, net of revenues, reflects an increase of \$24.5 million or 6.0% from FY 2020, primarily from lower CAISO revenue.



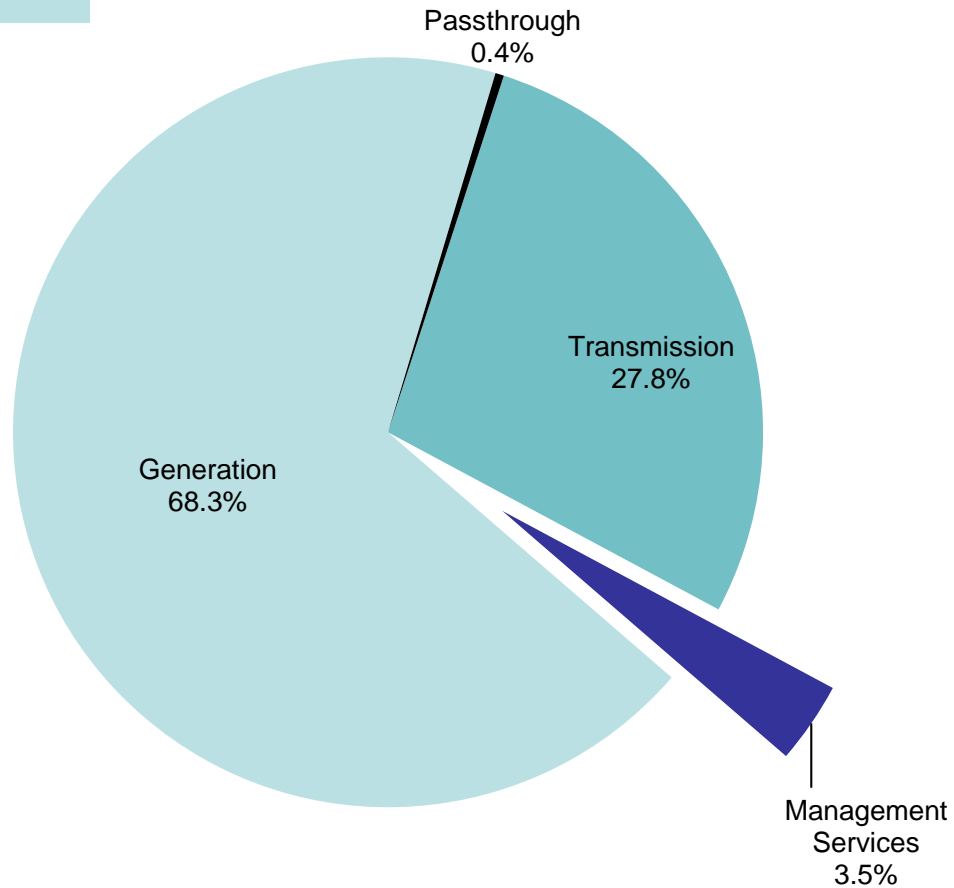
- |                            |                              |                      |
|----------------------------|------------------------------|----------------------|
| ■ Generation Resources     | ■ Transmission               | ■ Power Management   |
| ■ Legislative & Regulatory | ■ Judicial Action            | ■ Settlements        |
| ■ Risk Management          | ■ Integrated Systems Support | ■ Pass through Costs |

# Proposed Budget (Net)

## FY 2020-2021

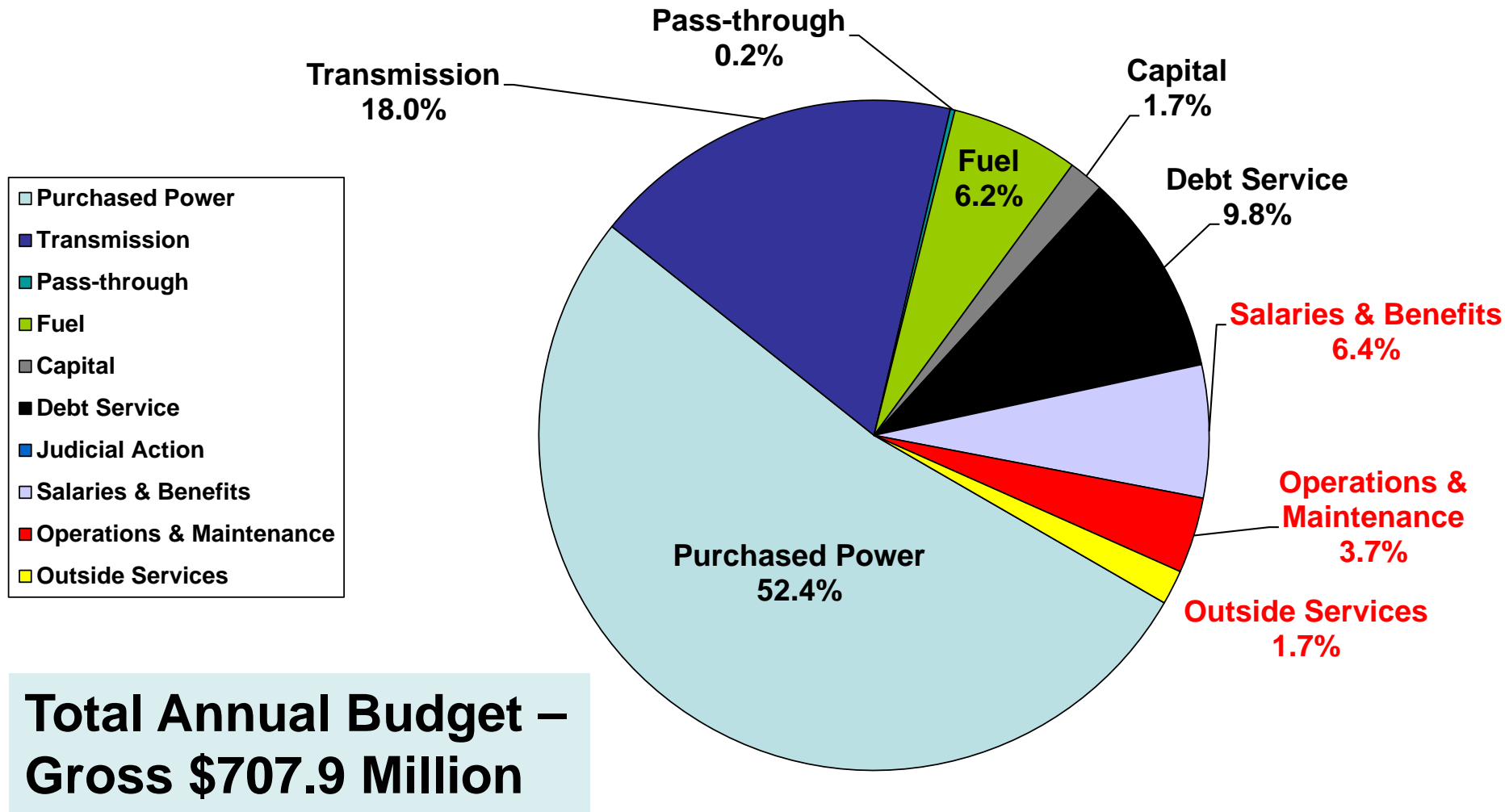
Total Annual Budget  
\$431.2 Million

### NCPA Budget



# Proposed Budget by Line Item (Before Revenues)

## FY 2020-2021



**NORTHERN CALIFORNIA POWER AGENCY  
ANNUAL BUDGETS**

**GENERATION RESOURCES**

NCPA Plants -

Controllable Plant Operating Costs

Pass Through Plant Costs

Total NCPA Plants

Member Resources - Energy

Member Resources - Natural Gas

Western Resources

NCPA Contracts & Market Power Purchases

Load Aggregation Costs

Net GHG Obligations

**TOTAL GENERATION RESOURCES**

<b>FISCAL YEAR ENDED JUNE 30</b>		
<b>Approved</b>	<b>Proposed</b>	
<b>2020</b>	<b>2021</b>	<b>Inc/(Dec)</b>
<b>\$ 62,592,791</b>	<b>\$ 67,005,412</b>	\$ 4,412,621
1,107,305	10,780,742	9,673,437
63,700,096	77,786,154	14,086,058
25,891,283	26,077,618	186,335
74,252	118,503	44,251
(2,517,251)	2,195,349	4,712,600
(1,218,419)	8,470,873	9,689,292
256,029,593	250,995,102	(5,034,491)
496,955	-	(496,955)
342,456,509	365,643,599	23,187,090

**TRANSMISSION - Independent System Operator**

**MANAGEMENT SERVICES**

Legislative & Regulatory

Judicial Action

Judicial Action - Direct to Programs

Power Management

Power Management - Direct to Programs

Energy Risk Management

Settlements

Integrated Systems Support

**TOTAL MANAGEMENT SERVICES**

**PARTICIPANT PASS THROUGH COSTS (TANC, DUES, ETC)**

**SUPPORT SERVICES**

**SUPPORT SERVICES REIMBURSEMENTS**

**TOTAL NET ANNUAL BUDGET COST**

PM Service Revenue

Member Owned Generation ISO Energy Revenue

Revenue from Customers

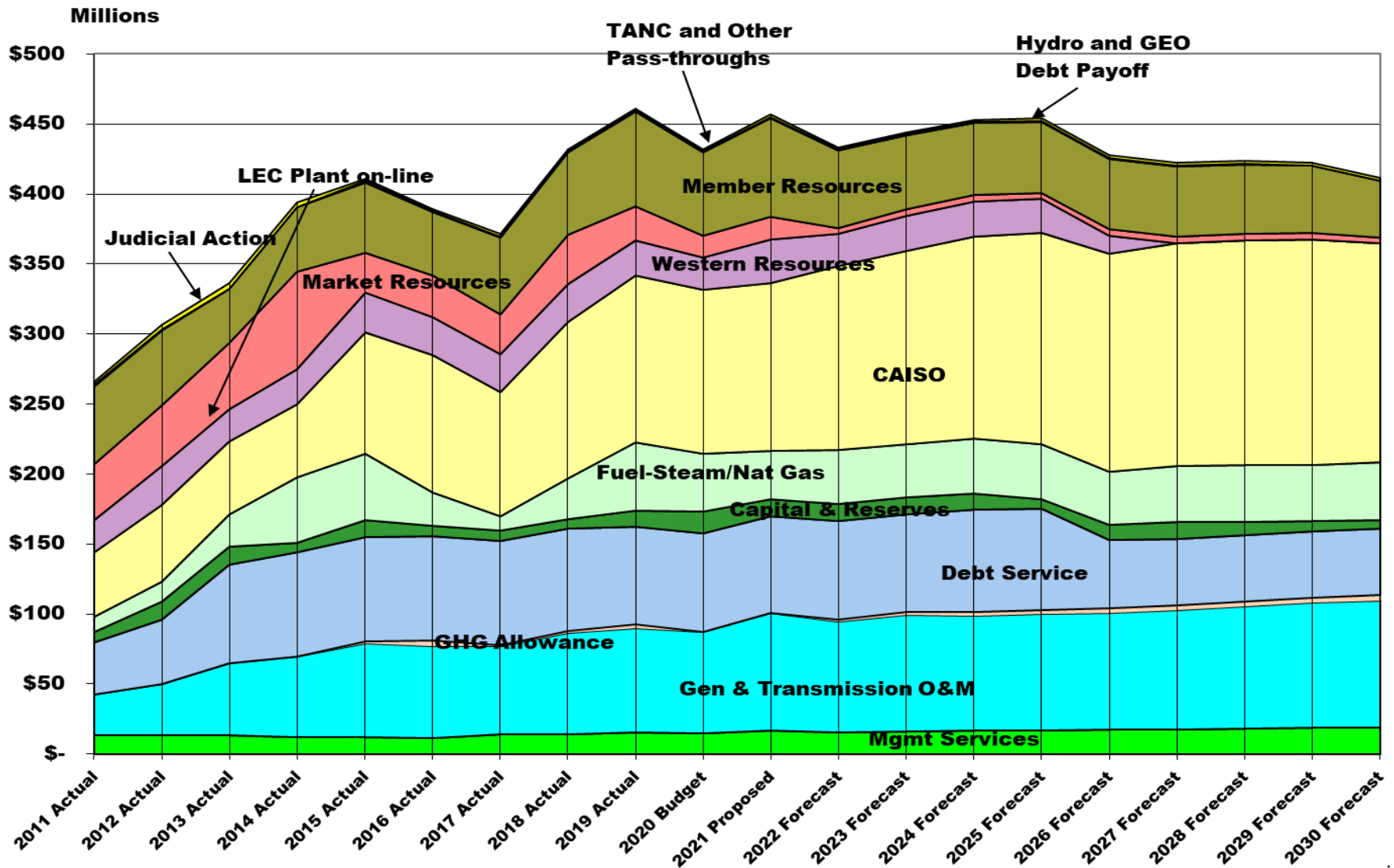
**TOTAL NET ANNUAL BUDGET COST**

116,832,820	119,995,200	3,162,380
<b>4,036,512</b>	<b>4,075,312</b>	38,800
<b>625,000</b>	<b>460,000</b>	(165,000)
<b>(74,646)</b>	<b>(74,282)</b>	364
<b>10,530,512</b>	<b>11,281,224</b>	750,712
<b>(1,364,510)</b>	<b>(1,449,578)</b>	(85,068)
<b>207,036</b>	<b>225,137</b>	18,101
<b>974,760</b>	<b>918,490</b>	(56,270)
<b>239,471</b>	<b>262,365</b>	22,894
15,174,135	15,698,668	524,533
<b>1,560,447</b>	<b>1,590,641</b>	30,194
<b>43,685</b>	<b>42,235</b>	(1,450)
<b>(43,685)</b>	<b>(42,235)</b>	1,450
476,023,911	502,928,108	26,904,197
<b>(2,236,497)</b>	<b>(2,064,318)</b>	172,179
<b>(67,107,648)</b>	<b>(69,679,260)</b>	(2,571,612)
-	-	-
<b>\$ 406,679,766</b>	<b>\$ 431,184,530</b>	<b>\$ 24,504,764</b>

Note: Areas most controllable by NCPA are highlighted in yellow, which are higher by 6.8% for FY 2021.

# Fiscal Year Annual Budget and Ten-Year Forecast

(Total Cost before Revenues)



# Generation Plants Cost Drivers

NCPA Plant costs (net of revenues) are up from \$63.7 million to \$77.8 million in 2021 (20.8% or \$16.7 million) primarily due to:

Increase net costs from:

- Decreases in Plants' Energy Sales from lower generation (\$22.4 million, 2,907,494 MWh in FY 2020 vs 2,584,675 MWh in FY 2021) and lower forward prices
- Increases in Fuel and Pipeline Transport Credits (\$0.8 million) due to higher prices

Decrease net costs from:

- Decreased fuel costs for LEC and gas projects (\$6.6 million)
- Lower O&M Projects, Capital Projects and Maintenance reserve costs (\$2.3 million) due to deferrals of projects

# Generation Resources Cost Drivers

Costs to purchase power to serve member and customer loads are projected to increase from \$211.6 million to \$218.2 million (3.1% or \$6.6 million) due to:

- Net increased in Member Contracts costs less revenue (\$0.2 million)
- Net increased in Western Resources costs less revenue (\$4.7 million)
- Net increased in NCPA Contracts costs less revenue (\$9.7 million)
- Decreased Load Aggregation costs, net of member owned generation CAISO energy sales (\$7.5 million)
- Decreased GHG obligations (\$0.5 million) due to allowance balances

# Transmission Cost Drivers

Transmission Costs are projected to increase from \$116.8 million in FY 2020 to \$120.0 million in FY 2021 (\$3.2 million or 2.7%) due to:

- Slight increases in gross load of 6,811,845 for FY 2020 to 6,832,639 for FY 2021
- Budgeted increase of 1.89% in Transmission Access Charges for FY 2021



# Management Services Cost Drivers

NCPA Management Services costs are projected to increase from \$15.2 million in FY 2020 to \$15.7 million in FY 2021 (\$500k or 3.5%):

- Salaries & Benefit increased - \$327k
- Non-personnel related costs reduced - \$438k
- Outside Services reduced - \$190k
- Changes in one-time capital projects (net decrease of \$75k from 2020)

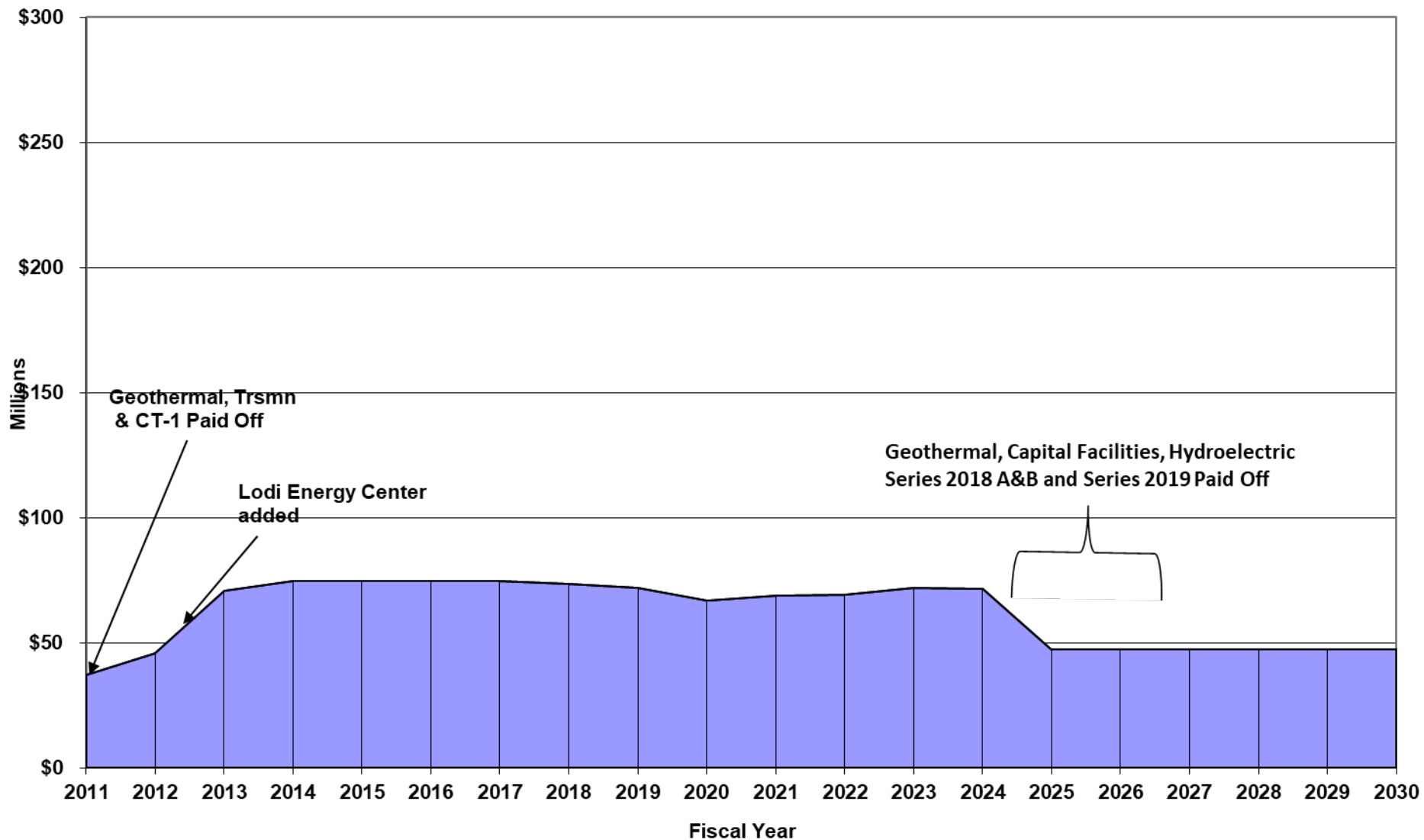
## Other Drivers – Pass-through Costs

- Increase in APPA dues of \$18.6k
- Increase in Member Services projects of \$8.7k

BAMX



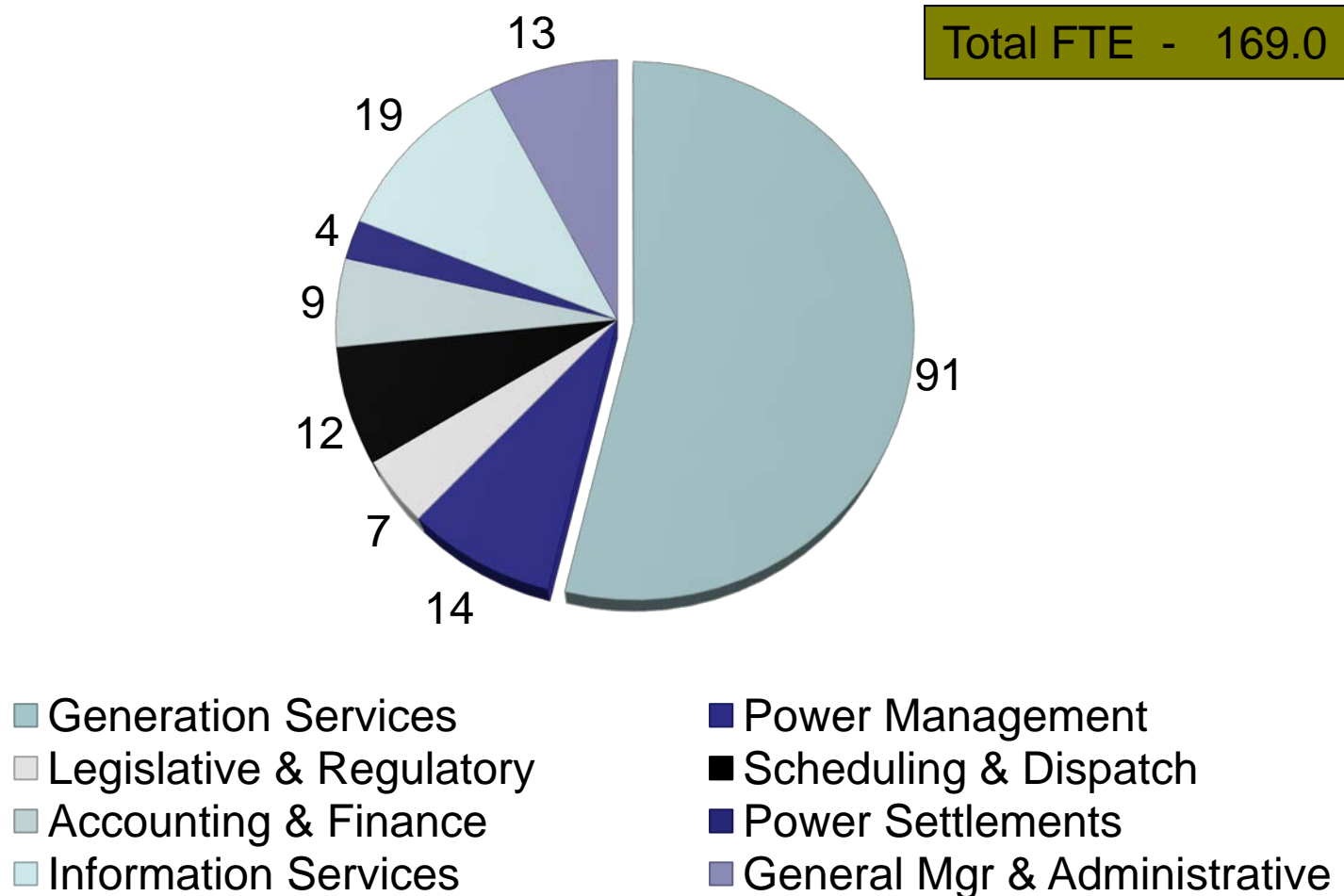
## Northern California Power Agency Debt Service



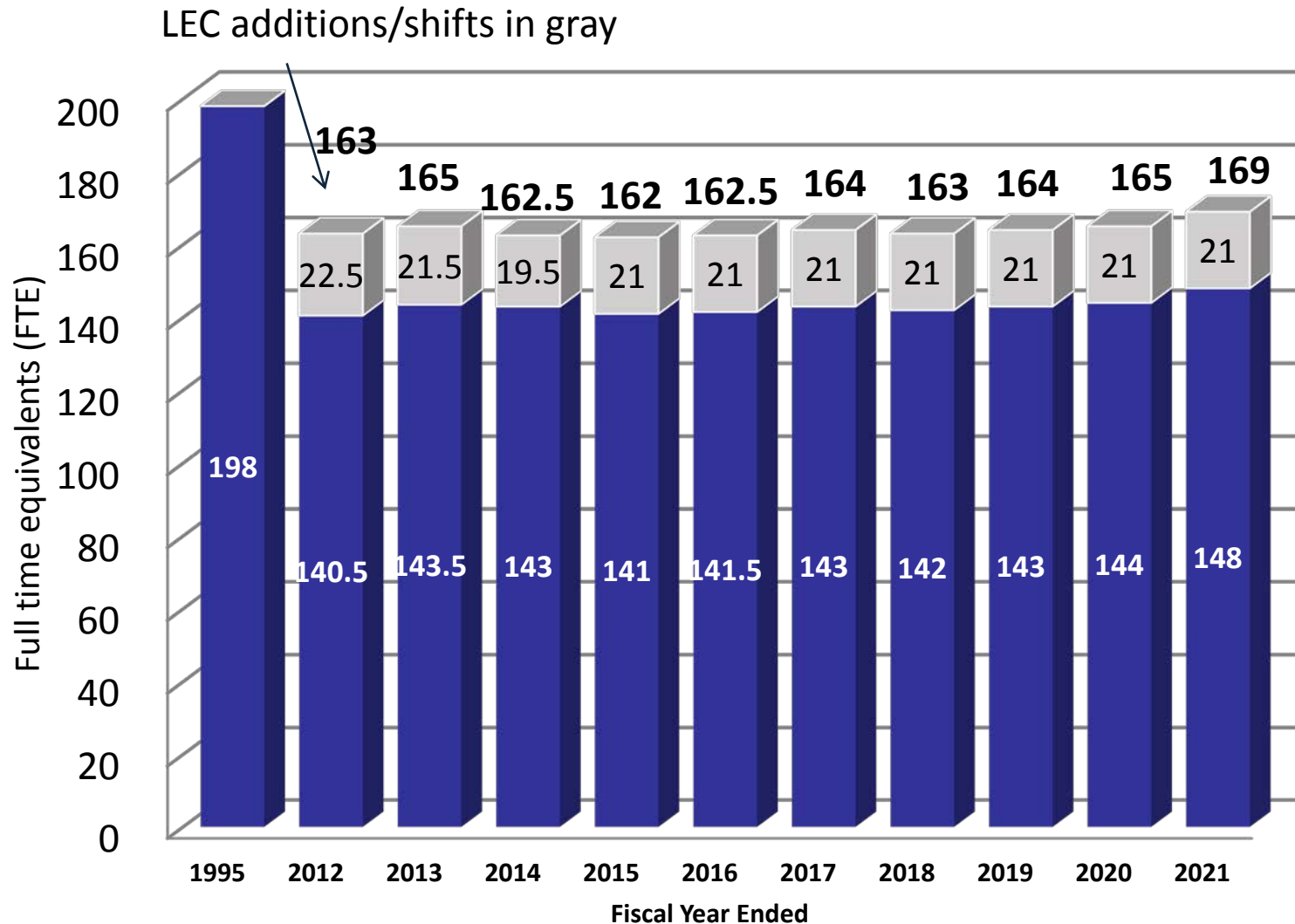
# Proposed Staffing by Department

Proposed Budget FY 2020-21

Number of FTEs

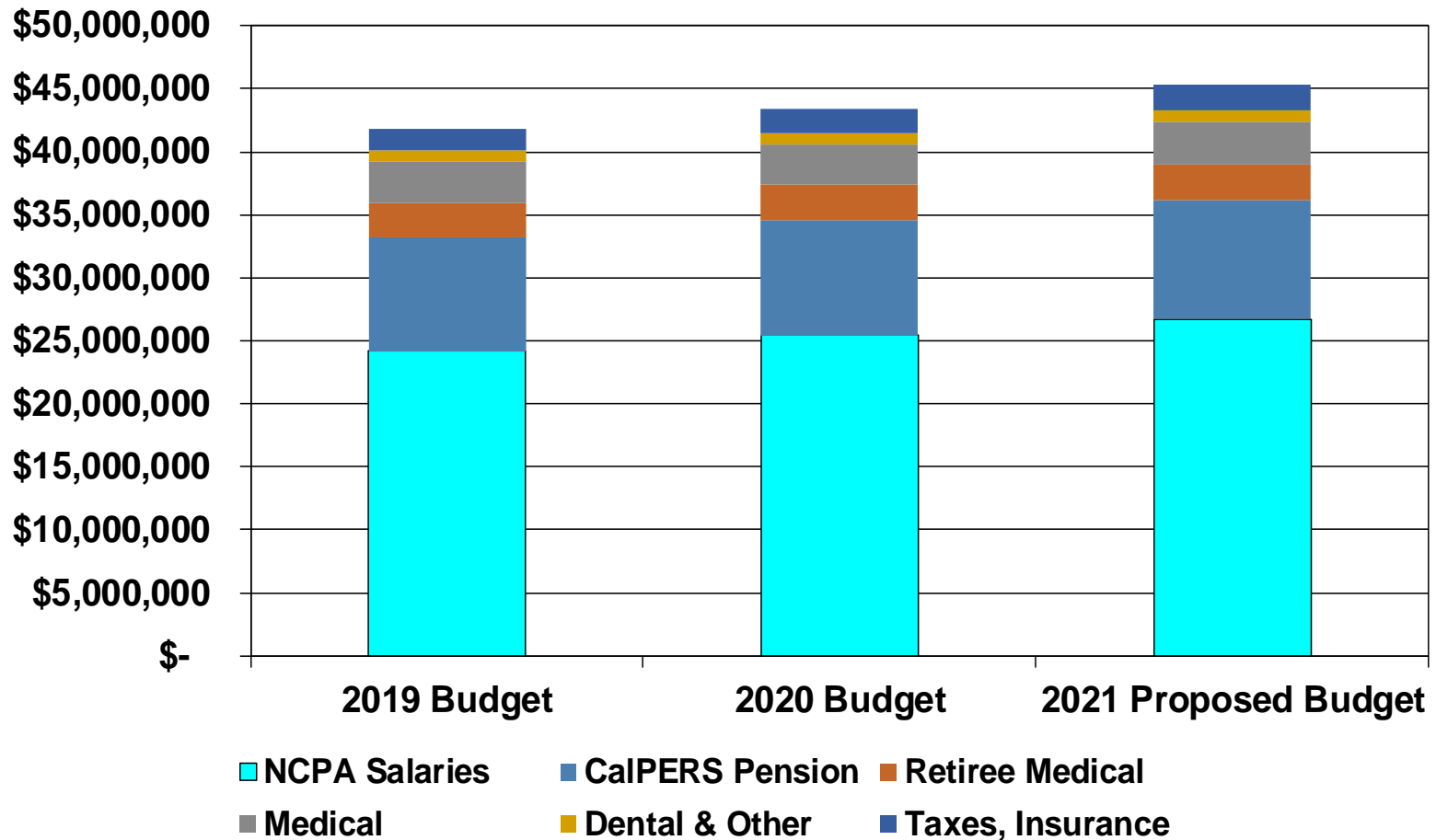


# Historical and Proposed Staffing FTEs - Budget FY 2021

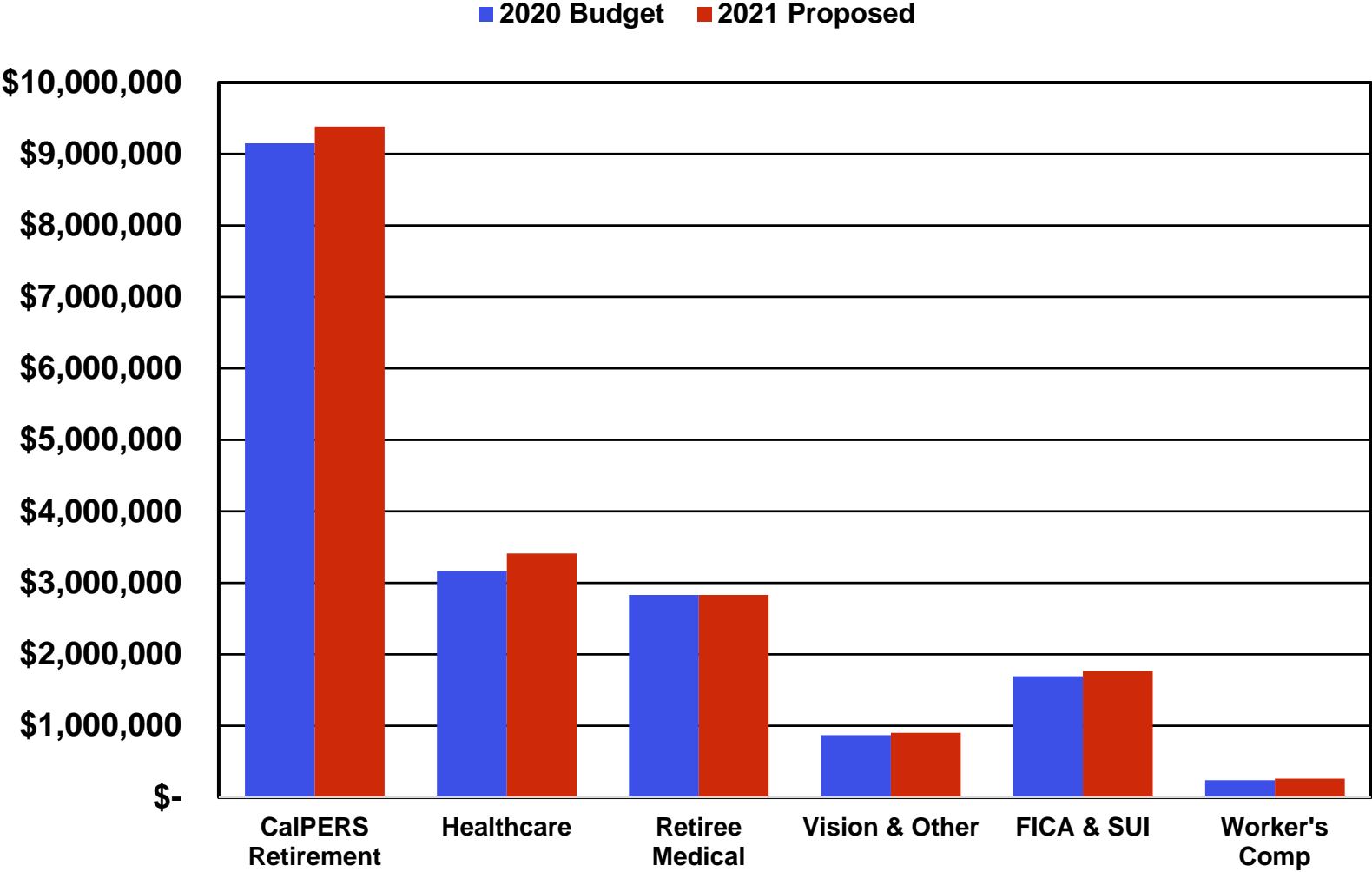


# Salaries and Benefits Comparison to Prior Years

Salaries and Benefits are above prior year budget (4.4%). Key drivers are 5.1% wage increases including four new positions (one Lead Dispatcher, one Computer Technology Analyst - DBA, one Cyber Security Compliance Analyst, and one Help Desk Technician).



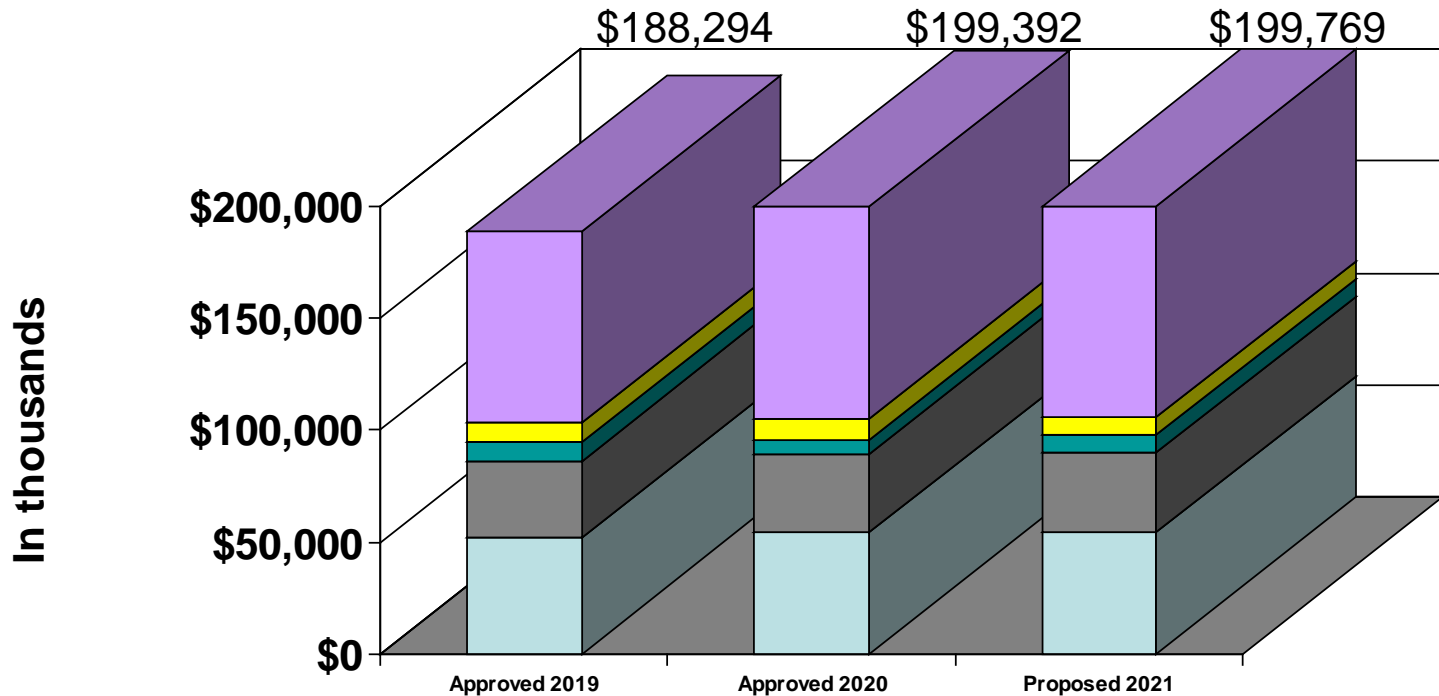
# Benefit Changes 2020-2021



# Proposed Budget

## Generation Resources – NCPA Plants

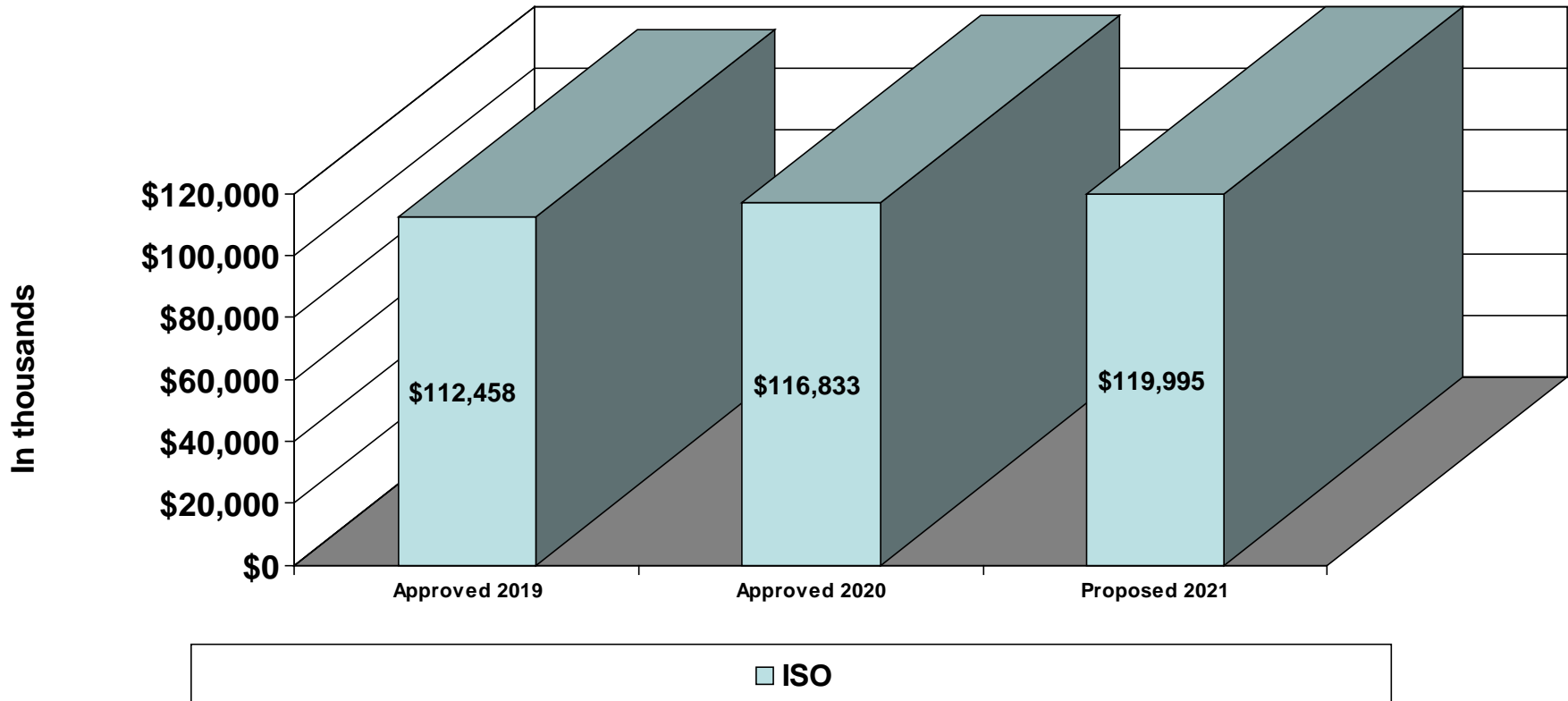
Proposed FY 2021 Budget reflects a \$0.4 million or 0.2% overall increase from FY 2020 on a gross basis.



Hydro Project    Geo Plant    CT 1    CT 2    Lodi Energy Center

# Proposed Budget Transmission (Net CAISO Charges)

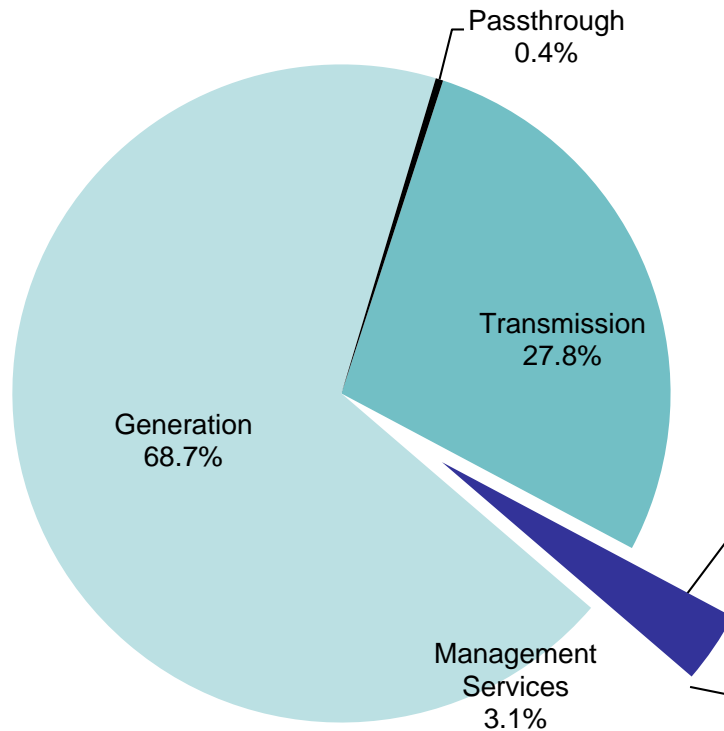
Proposed 2021 budget reflects an increase from 2020 of \$3.2 million or 2.7%



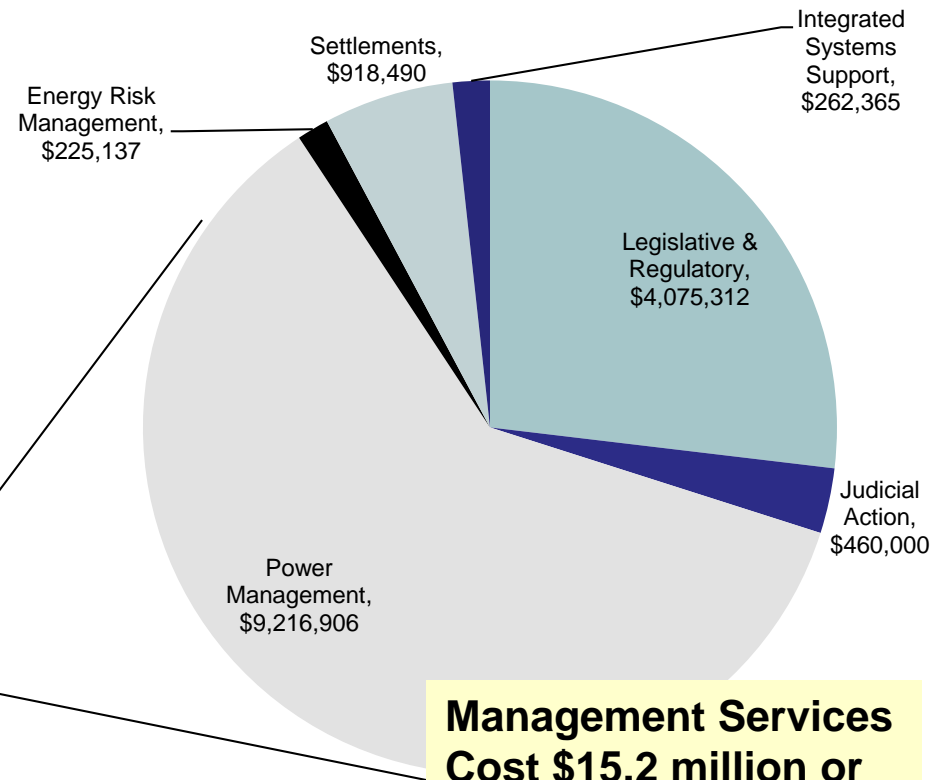
# Proposed Budget Management Services

Proposed FY 2021 Net Budget reflects increase of \$25.2M from FY 2020 budget due to increases in load costs

## NCPA Budget



## Management Services

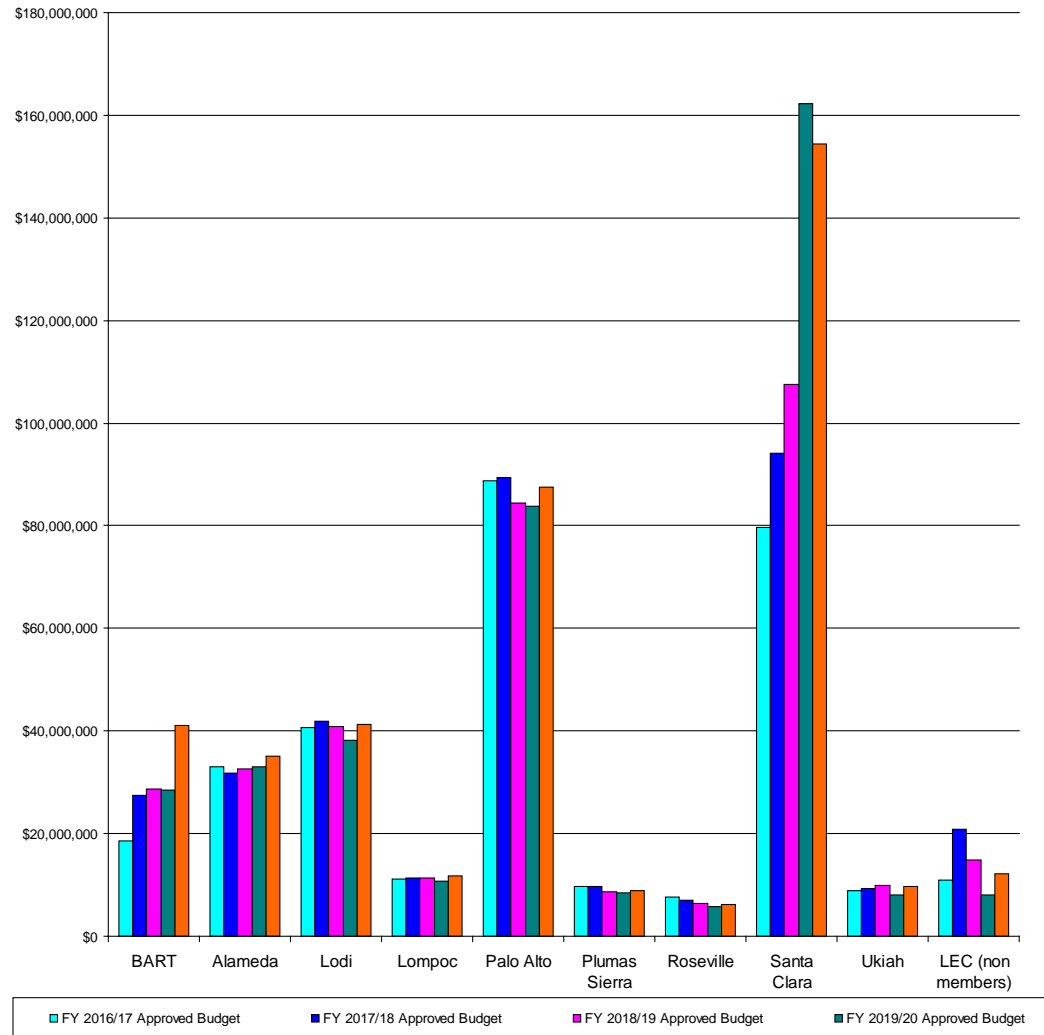


**Management Services  
Cost \$15.2 million or  
3.5% of total**

**Total Annual Budget Cost \$431.9 Million**

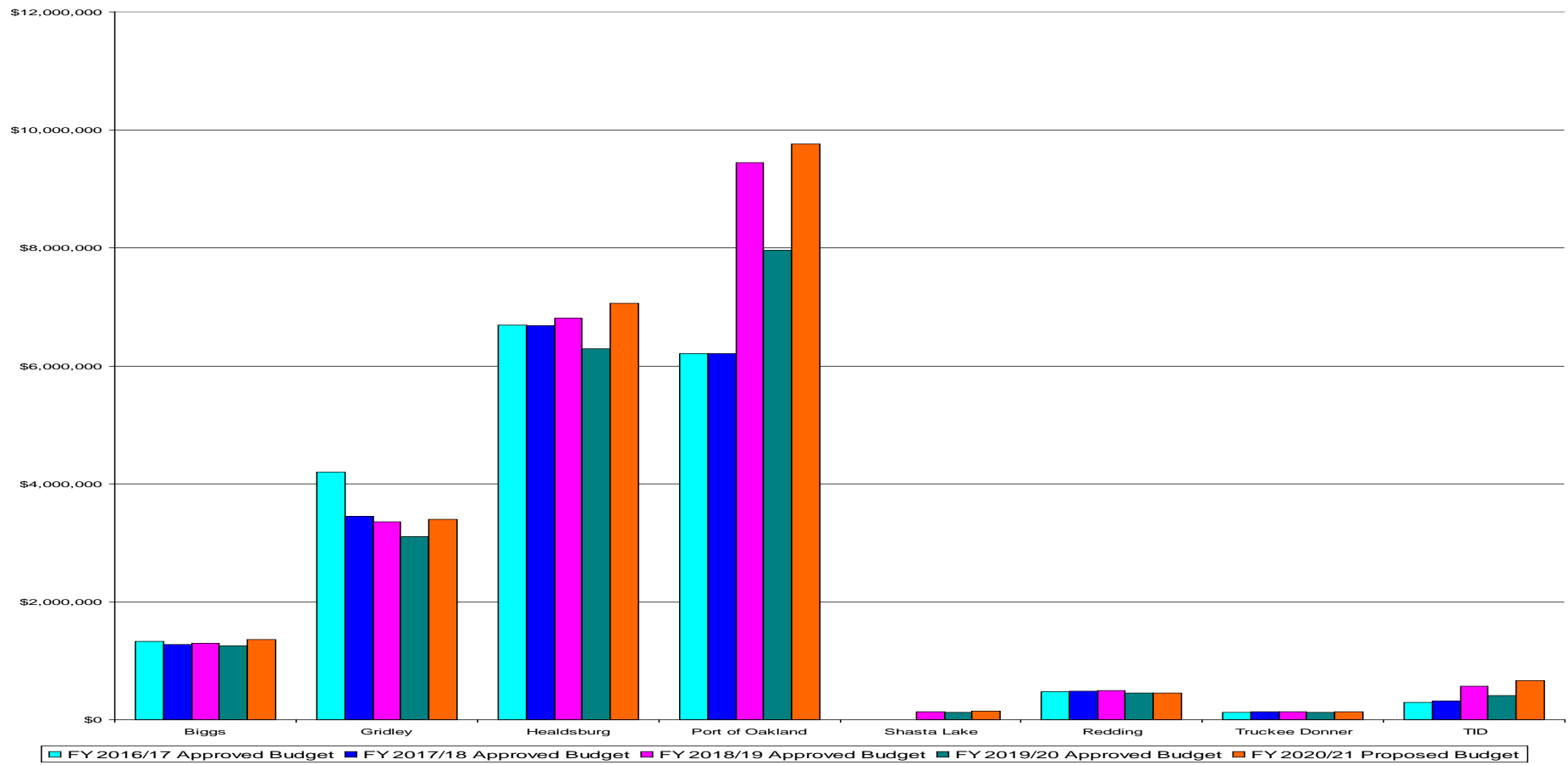
# Participant Funding Requirements (Net) Budget FY 2020/21

*Participants (1 of 2)*



# Participant Funding Requirements (Net) Budget FY 2020/21

*Participants (2 of 2)*



**NORTHERN CALIFORNIA POWER AGENCY  
ANNUAL BUDGETS**

**GENERATION RESOURCES**

**NCPA Plants**

Hydroelectric  
Geothermal  
Combustion Turbine No. 1  
Combustion Turbine No. 2 (STIG)  
Lodi Energy Center

**Subtotal**

**Member Resources - Energy**

**Member Resources - Natural Gas**

**Western Resource**

**NCPA Contracts & Market Power Purchases**

**Load Aggregation Costs**

**Net GHG Obligations**

**Subtotal**

**TOTAL GENERATION RESOURCES**

FISCAL YEAR ENDED JUNE 30		Inc/(Dec)	% Change
2020	Proposed 2021		
\$ 27,409,624	\$ 29,166,842	\$ 1,757,218	6.4%
4,585,392	8,505,825	3,920,433	85.5%
4,903,526	6,572,178	1,668,652	34.0%
6,823,166	5,617,806	(1,205,360)	-17.7%
19,978,388	27,923,503	7,945,115	39.8%
63,700,096	77,786,154	14,086,058	22.1%
25,891,283	26,077,618	186,335	0.7%
74,252	118,503	44,251	59.6%
(2,517,251)	2,195,349	4,712,600	187.2%
(1,218,419)	8,470,873	9,689,292	795.2%
256,029,593	250,995,102	(5,034,491)	-2.0%
496,955	-	(496,955)	-100.0%
278,756,413	287,857,445	9,101,032	3.3%
342,456,509	365,643,599	23,187,090	6.8%

**TRANSMISSION**

**Independent System Operator**

Grid Management Charge (GMC)  
GMC Wheeling  
Ancillary Services (AS)  
Other Charges

**TOTAL TRANSMISSION**

2,813,086	2,674,231	(138,855)	-4.9%
110,551,039	112,635,612	2,084,573	1.9%
2,147,406	3,750,031	1,602,625	74.6%
1,321,289	935,326	(385,963)	-29.2%
116,832,820	119,995,200	3,162,380	2.7%

**MANAGEMENT SERVICES**

**Legislative & Regulatory**

Legislative Representation  
Regulatory Representation  
Western Representation  
Customer Programs

**Subtotal**

**Judicial Action**

Judicial Action Direct Cost to Programs

**Power Management**

System Control And Load Dispatch:  
Dispatch & Real-time Resource Management  
Schedule Coordination  
System Control. And Data Acquisition  
WECC/NERC Compliance & Participation  
Subtotal

2,129,183	2,177,174	47,991	2.3%
747,271	714,164	(33,107)	-4.4%
742,208	713,150	(29,058)	-3.9%
417,850	470,824	52,974	12.7%
4,036,512	4,075,312	38,800	1.0%
625,000	460,000	(165,000)	-26.4%
(74,646)	(74,282)	364	-0.5%
2,432,543	2,613,276	180,733	7.4%
2,612,044	2,796,676	184,632	7.1%
818,953	1,124,773	305,819	37.3%
200,434	212,588	12,154	6.1%
6,063,974	6,747,312	683,338	11.3%

**NORTHERN CALIFORNIA POWER AGENCY  
ANNUAL BUDGETS**

Continued

	FISCAL YEAR ENDED JUNE 30		Inc/(Dec)	Budget %
	2020	Proposed 2021		
Forecasting Planning, Prescheduling & Trading				
Forecasting	629,345	680,124	50,779	8.1%
Resource Planning, Optimization, Risk Analysis & Mgmt.	564,640	654,475	89,836	15.9%
Power & Fuel Transactions	144,628	152,852	8,223	5.7%
Pre-Scheduling	842,702	869,168	26,466	3.1%
Power Pool Oper. & Settlement Standards	561,645	376,012	(185,633)	-33.1%
Facilities Agreement Administration	180,654	191,183	10,528	5.8%
Subtotal	2,923,614	2,923,813	199	0.0%
Industry Restructuring & Regulatory Affairs	412,049	422,722	10,673	2.6%
Contract Admin, interconnection Svcs & External Affairs:				
Contract Maint, Negotiation and Administration & Litigation	673,819	703,475	29,656	4.4%
TANC Representation & Advocacy	29,418	30,543	1,125	3.8%
Western Representation & Advocacy	135,344	144,905	9,561	7.1%
Pooling Agreement Coordination and Administration	109,155	114,994	5,839	5.3%
Subtotal	947,737	993,918	46,181	4.9%
Green Power Project	-	-	-	0.0%
Gas Purchase Program	77,025	81,377	4,352	5.7%
Market Purchase Power Project	106,113	112,082	5,969	5.6%
Power Management Direct Cost to Programs	(1,364,510)	(1,449,578)	(85,068)	6.2%
<b>Subtotal - Power Management</b>	9,166,002	9,831,646	665,644	7.3%
<b>Energy Risk Management</b>				
ROC, RMC Meetings & Activities	50,503	51,050	548	1.1%
Counter-party Credit Review & Analysis	156,533	174,087	17,553	11.2%
Subtotal	207,036	225,137	18,101	8.7%
<b>Settlements</b>				
Deal Control Validation & Monitoring	395,690	347,316	(48,374)	-12.2%
ISO Data Validation & Monitoring	579,070	571,174	(7,896)	-1.4%
Subtotal	974,760	918,490	(56,270)	-5.8%
Integrated Systems Support	239,471	262,365	22,894	9.6%
<b>TOTAL MANAGEMENT SERVICES</b>	15,174,135	15,698,668	524,533	3.5%
<b><u>PARTICIPANT PASS THROUGH COSTS (TANC, DUES, ETC)</u></b>	1,560,447	1,590,641	30,194	1.9%
<b><u>SUPPORT SERVICES</u></b>	43,685	42,235	(1,450)	-3.3%
<b><u>SUPPORT SERVICES REIMBURSEMENTS</u></b>	(43,685)	(42,235)	1,450	-3.3%
<b>TOTAL NET ANNUAL BUDGET COST</b>	<b>\$ 476,023,911</b>	<b>\$ 502,928,108</b>	<b>\$ 26,904,197</b>	<b>5.7%</b>
<b>OTHER THIRD PARTY REVENUE</b>				
PM Service Revenue (Allocated via Nexant methodology)	2,012,847	1,857,886	(154,961)	-7.7%
PM Service Revenue (Allocated via A&G methodology)	223,650	206,432	(17,218)	-7.7%
Member Owned Generation ISO Energy Revenue	67,107,648	69,679,260	2,571,612	3.8%
Subtotal	69,344,145	71,743,578	2,399,433	3.5%
<b>TOTAL ADJUSTED NET ANNUAL BUDGET COST</b>	<b>\$ 406,679,766</b>	<b>\$ 431,184,530</b>	<b>\$ 24,504,764</b>	<b>6.0%</b>

# Generation Services

FY 2021  
Budget and Business Plan

## **Generation Services Business Unit**

### **Mission Statement**

Generation Services will operate and maintain generation resources safely, cost effectively, reliably and in compliance with all applicable standards and permits.

### **Goals**

Generation Services Business Unit has prepared a Business Plan for each of the generation plants consistent with the following goals:

- Safety - Operations of the plants will be prioritized to ensure safety of the public, employees, environment, and equipment.
- Cost Consideration - Total direct and indirect cost of generation vs. the approved budget will be monitored and evaluated regularly. Projects will be analyzed to ensure the benefits of the projects exceed the costs of the project. This information will be shared with the members for their input/approval consistent with Third Phase agreements and NCPA procurement policies and procedures.
- Plant Reliability - Plants will prepare outage plans and seek member approval thereof every year prior to submitting to the CAISO. Plants will be operated and maintained in a manner that minimizes forced outages.
- Compliance with Applicable Standards and Permits - Any and all applicable standards such as NERC/WECC Reliability, Cal-OSHA, Local air boards, FERC licenses and permits, CEC Permits, Environmental Protection permits, local laws and regulations are strictly adhered to.

### **Additional Information**

In the early 1980's, NCPA embarked upon developing its own resources to become more independent in meeting the energy needs of its members. The Geothermal Plant 1 (110 MW nameplate) became operational in 1983, followed by Plant 2 (110 MW) in 1986. The large Collierville hydroelectric plant (253 MW) became operational in 1990. In the mid 1980's, five CT1 24.8 MW simple cycle Combustion Turbine power plants were commissioned to meet members' peak power demands while minimizing the need to purchase expensive peak power from alternate suppliers. NCPA currently operates three of these plants in Lodi and Alameda, while Roseville Electric assumed operation of the two Roseville plants in 2010. In 1996, the 50 MW CT2 modified steam injected natural gas plant (STIG) in Lodi became operational. And finally in 2012, the Lodi

Energy Center (LEC) combined-cycle fast-start natural gas plant became operational; rated at 300 MW, it represents the largest power plant and most efficient combustion turbine in the NCPA fleet.

The NCPA power plant fleet typically produces 2,600,000 MWh each year, which can provide the electric power needs of 500,000 households. Generation Services (GS) is responsible for the operation and maintenance of all power plants. These plant sites are geographically spread out over a long distance from the Roseville home office. The Generation Services Department manages these resources with 90 employees at the various power plant sites and the Roseville Headquarters.

The proposed budget increase for GS for FY 2021 is \$14,086,060, 22.1% above the FY 2020 budget. The increase is due primarily to lower prices in the forward curves.

Energy production table below compares the proposed and current years' production. Energy production at the hydroelectric facility is expected to remain approximately the same this year. Geothermal energy production is projected to decrease slightly due to changing steam field and plant conditions. LEC energy production will decrease due to market conditions.

	Proposed FY 2021			Proposed FY 2020		
TOTAL All Plants	\$	30.10	based on total generation of 2,548,675 MWh	\$	21.91	based on total generation of 2,907,494 MWh
Hydro	\$	57.36	based on 508,507 MWh	\$	53.86	based on 508,897 MWh
Geothermal	\$	11.52	based on 738,552 MWh	\$	5.90	based on 776,885 MWh
CT 1	\$	420.19	based on 15,641 MWh	\$	375.98	based on 13,042 MWh
CT 2	\$	1,126.49	based on 4,987 MWh	\$	741.17	based on 9,206 MWh
LEC	\$	21.20	based on 1,316,988 MWh	\$	12.49	based on 1,599,464 MWh

Ownership participation into these resources by its members and other public entities who are not members of NCPA varies in percentages by the participants. Additionally, NCPA is constantly optimizing the use of these facilities against the CAISO market to:

- Provide the least cost energy to its members
- Protection against total reliance on market purchases
- Ability to sell excess energy into the CAISO market to minimize the energy costs to members
- Generate renewable, carbon free energy from its geothermal and hydro resources to reduce the greenhouse gas effects
- Capacity and other supports such as spinning reserve, regulation and replacement to the CAISO market
- Support to the local area capacity needs, etc.

As these power plants become older they require additional capital expenditures for equipment replacement and betterment to maintain or even improve efficiencies, and maintain their economic advantages. GS has adopted a process to evaluate cost vs benefits to ensure that these projects are economically justified by improvement of the plant reliability, output, and replacement of out dated and unsupported equipment. After internally reaching a conclusion, GS discusses these options with the members explaining pros and cons and provides appropriate recommendations. Only after members concur, are these improvements budgeted. The capital improvement and betterment activities to enhance member competitiveness and to achieve and maintain efficient and cost-effective operations are planned over a 5-year period for all facilities. Funding for these projects comes from existing construction and capital reserves, public benefit support from member cities where possible, and the O&M (Operations and Maintenance) budget. The major work in this area has been accomplished at all locations over the last several years.

### **Hydroelectric Facilities**

The Hydroelectric business office is located in Murphys, California, 91 miles from the Roseville home office. Hydro personnel report to the Murphys office and then disperse to the various facilities to perform daily operations and maintenance activities. Distances from the Murphys office to various locations are: Alpine Lake, 44 miles, New Spicer Meadow reservoir, 44 miles, McKays Point and Beaver Creek dams, 17 miles, and Collierville Power House, 15 miles. Features of the Hydroelectric facility include a 189,000-acre foot reservoir (New Spicer Meadows Reservoir), six smaller diversion reservoirs, approximately ten miles of tunnels, two large generating units and three smaller units, and approximately 40 miles of dual circuit 230 KV transmission (generator tie) line. The combined generating capacity is 253 MW (current ISO rating). The project features are located in Calaveras, Tuolumne and Alpine Counties.

### **Current Operating Philosophy**

The 260 MW (gross) plants are forecasted to generate 509 GWH for the 2020-2021 budget year, assuming an average water year.

Currently, the facility is operated in order to meet the power requirements of the Pool members (50.98% Project share), Silicon Valley Power (37.02%), and Roseville (12%), and to maximize its value relative to the power market. NCPA planners assess the value of stored water in New Spicer Meadow Reservoir using market power data and regulate discharges to maximize the resource. The project is operated to maximize water use and to meet license requirements. This includes the FERC license that ensures that water flows are optimized to support fish, wildlife, recreation, power production, and other needs. Under special circumstances, it may be economically advantageous to allow McKays Point Reservoir to spill for brief periods while providing ancillary services from the Collierville Powerhouse. These circumstances will be carefully evaluated on a case-by-case basis.

### **Business Plan**

The Hydro Facilities FY 2021 Business Plan is designed to bring focus to the business requirements of the facility by establishing long-term goals (>1 year) that are supported by shorter-term goals (<1 year), which can also be defined as sub-goals or milestones. The business requirements addressed by the goals are based on the business needs of the NCPA members that own the facility and ultimately pay the costs to operate and maintain the facility. The assumed business needs of the owners relative to the Hydro facilities is the need for reliable, renewable energy at the lowest reasonable cost provided with the greatest possible reliability.

## **Business Plan Rationale**

The basic rationale is to establish a goal based Business Plan that supports the performance objectives for FY 2021 pertaining to Generation Services (GS) as established by the NCPA General Manager. For the Hydro facilities, the performance objectives fall into three categories: 1) Safety and Compliance, 2) Cost of Production, and 3) Availability and Reliability.

For the Safety and Compliance category, the GS objectives are:

- Eliminate Lost Time Accidents
- Adhere to Federal and State rules and regulations
- Maintain emergency communications capabilities per Homeland Security Guidelines

For the Cost of Production category, the GS objectives are:

- Generate power for members at reasonable cost
- Manage variable costs at or below plant costs
- Plants to maintain or improve previous best results

For the Availability and Reliability category, the GS objective is:

- Provide members with reliability of supply and access to transmission

The basic premise of the Hydro Business Plan is that all goals and sub-goals must support these objectives.

## **Development of Goals**

The development of the FY 2021 Business Plan Goals was accomplished within the team environment. Discussions were held to categorize the data and establish goals that address the collected data and support the Generation Services performance objectives. The actual determination of Business Plan goals was a product of the team through consensus. Team participation and input was essential in developing a Business Plan that links field experiences with management objectives.

The success of the Business Plan can only be accomplished through continuing participation of all facility personnel, and full participation can only be achieved if each and every person fully understands and believes in the rationale behind the plan, and in turn understands their own personal contribution to the plan.

### **Goals and Goal Analyses**

The following goals are included in the Business Plan to support the Generation Services performance objectives. The Hydro Manager will be responsible for monitoring milestone progress and coordinating and facilitating the efforts of others needed to complete the goal. The goals are:

- 1) Personnel Safety
- 2) Project and Public Safety
- 3) Compliance
- 4) Generation Enhancement
- 5) Asset Management – Embed Practices
- 6) Asset Management – Reduce Forced Outage Rate
- 7) Asset Management – Condition Assessment
- 8) CMMS utilization
- 9) Training
- 10) Resource Planning

### **Future Operating Strategies**

Enhancing the value of the water for its use in providing products to the power market in general and to the member participants will result in a review of operating rules and procedures as these new markets develop. With access to the ISO ancillary service markets the plant is providing spinning reserve, non-spinning reserve, regulation & replacement reserve services to the market. Policy issues will be raised and resolved with the Operating Entities as they arise. The plant is not designated for reliability must-run (RMR) service.

## **Geothermal Facilities**

The Geothermal Facility is located approximately 146 miles from the NCPA Roseville home office, on Federal Bureau of Land Management leases in an area known as the Geysers. The Geysers are situated in the rural, mountainous regions of Sonoma and Lake Counties. The facility consists of two power plants, each housing two 55-megawatt generating units, and a 1,200-acre steam field development, which includes 78 geothermal steam and injection wells with 25 miles of steam transmission, condensate collection and water injection pipelines.

The Geothermal Facility also includes a portion of the 29-mile long Lake County Effluent Pipeline Project (EPP) that provides treated effluent from various Lake County Communities, as well as water from Clear Lake for injection into the steam reservoir. Heat in the reservoir converts the EPP water to steam for use in power generation. NCPA is a partner in the EPP with the Lake County Sanitation District and the Calpine Corporation. The NCPA Geothermal Facility operates and maintains the four pump stations used to lift the EPP water to the Geysers area and distributes up to 42% of the water to the steam field and delivers the balance to Calpine as per the EPP partnership agreement.

Units #1 and #2 at Plant #1 were overhauled in April 2019. Capital improvements during this overhaul included new steam ejectors to improve the gas handling capability, new ball ejector systems to improve the condenser cleaning ability, and a new polishing tower in the Stretford gas processing system. In addition, six well workovers were conducted on P and Q site well pads. These workovers repaired or attempted to repair damaged casing on five wells and restored the water injection capacity of one well.

## **Current Operations**

The Geothermal Facility is expected to average 96 gross megawatts in a predominantly base load operation over the next year. When market conditions dictate, Unit 4 output can be varied to coincide with system load. The location of the steam wells that supply Plant 2 are such that steam that is not used to generate during potential load following conditions is “banked” in the reservoir and remains available for future use.

## **Operating Strategy and Business Plan**

The Geothermal Facilities operate under the basic strategy of maximizing to the greatest extent possible the value of the facilities for the NCPA member/owners. With this in mind, the Geothermal Facilities have utilized a Business Plan that brings focus to the business requirements of the facility by establishing long-term goals (>1 year) that are supported by shorter-term goals (<1 year), which can also be defined as subgoals or milestones. The business requirements addressed by the goals are based on the business needs of the NCPA members, which are assumed to be based simply upon the need for reliable, renewable energy at the lowest reasonable cost.

## **Goals and Goal Analyses**

The following goals are included in the Geothermal Business Plan. The proposed FY 2021 Operations and Maintenance and capital projects budget supports these goals. Where applicable, individual personal performance plans developed at the Geothermal Facilities support the Business Plan goals. The Geothermal Facility goals are:

- 1) Safety – 0 Lost Time Accidents
- 2) Regulatory Compliance
- 3) Labor Effectiveness - Maximize labor effectiveness by controlling sick leave usage, develop operating procedures, update job descriptions and job standards, continue to expand upon job broadbanding initiatives and multitasking, complete network upgrades, keep current with work orders, and others
- 4) Operations & Maintenance Personal Development and Training
- 5) Achieve a Geothermal Facility Availability of >99% in FY 2021
- 6) Maximize recovery of Injected Water as Steam
- 7) Develop additional injectors allowing reduced injection flow volume into all injectors to maximize injection derived steam to the power plants
- 8) Produce enough steam to generate 738,552 net MWhrs in FY 2021

## **Current Operating Philosophy**

Currently, the geothermal power plants are operated for NCPA's project participants in accordance with a protocol that is approved by the NCPA Commission. The purpose of the protocol is to protect NCPA's steam reserves that are located adjacent to and nearby the property-line border of other steam users/suppliers, and to provide power scheduling flexibility. It is intended to balance the desires for current generation output with those for a long-lasting fuel supply. Currently, the operating protocol is two-zone operation, which was implemented in FY 2012. Personnel can readily change from two-zone down to a one-zone operation should conditions require such a change. Net generation is forecasted to be 409,718 MWhrs for Plant #1 and 328,834 MWhrs for Plant #2 for a total of 738,552 MWhrs net during the FY 2021 for the facility.

## **Future Operating Strategies**

In the future, it is anticipated that NCPA will continue as a base load facility utilizing a 3 unit operation with Unit 3 being shutdown. The ultimate goal is to reduce costs as steam availability declines in order to be at the optimum O&M levels as generation declines. The successful implementation of the Geothermal Facilities Business Plan will help achieve this ultimate goal.

## **Combustion Turbine Facilities**

The Combustion Turbine organization consists of three projects, CT1, CT2 and Lodi Energy Center (LEC).

Combustion Turbine Project No. One (CT1) consists of three simple cycle combustion turbines that are Nuovo Pignone/General Electric "Frame 5 MS5001P" type units. There are two units located in Alameda and one in Lodi. The project has a combined nominal capacity of 75 Megawatts (MW).

Combustion Turbine Project No. Two (CT2) consists of a Steam Injected Gas Turbine (STIG) using a General Electric LM 5000 aero-derivative gas turbine, GE Power Turbine, and a Heat Recovery Steam Generator (HRSG) system. The plant has a capacity of 49.9 MW's and is located in Lodi.

Lodi Energy Center consists of a Siemens SGT6-5000F3, a Heat Recovery Steam Generator (HRSG) system and a Siemens Standard SST-700(HP)+SST 900(IP&LP).

## **Combustion Turbine Project Business Plan**

The Combustion Turbine Project Business Plan is to ensure all assets are safe, environmental compliant, reliable, cost effective, and to continually improve operation and maintenance activities. The plan works to maintain consistency with goals established by NCPA and its members. The goals and priorities are listed out below:

### **Safety**

- 0 lost time accidents/Injuries
- Audit facilities to identify and eliminate unsafe conditions
- Review and update safety policies and procedures to current industry standards
- Investigate all incidents and near misses and implement changes as necessary
- Provide the necessary safety training for our employee's

### **Environmental Compliance**

- 0 NOV's (Notice of Violation)
- Operate and maintain equipment to local agency requirements
- Identify ways to reduce emissions and waste
- Review and update environmental policies and procedures
- Train our employees to current environmental standards

#### Reliability/Efficiency

- Availability
  - STIG/LEC >89.09%
  - CT1>91.54%
- Forced Outage Rate
  - LEC <6.36%
  - CT1/STIG<75.24%
- Identify areas to improve efficiency or reduce parasitic load

#### Continuous Improvement

- Develop new practices and identify new technologies to reduce COP (cost of production)
- Promote employee involvement
- Increase employee productivity by implementing a priority based work management system to insure the right work is performed at the right time
- Develop employee site specific training programs and matrices

#### **Continued Future Operating Strategies**

Staff is dedicated to ensuring all Combustion Turbine assets are available for the NCPA member's benefits and to find new ways to reduce cost and lower operation and maintenance expenses.

# Legislative & Regulatory

FY 2021  
Budget and Business Plan

## **Role of the NCPA Legislative & Regulatory Affairs Program**

We protect and enhance the value of NCPA's investments and the ability of NCPA members to provide their customers with reliable, low-cost, and environmentally responsible electric service through joint action.

## **FY 2021 Budget Framed by NCPA's Legislative & Regulatory Affairs Program's Strategic Goals**

In November 2019, the NCPA Legislative and Regulatory Affairs Committee approved its Strategic Plan for the 2020 calendar year. The plan delineates several goals that shape the focus of our Legislative and Regulatory Affairs program activities, and frame our budget development process for FY 2021. Progress toward achievement of these goals is overseen and guided by the NCPA Legislative and Regulatory Affairs Committee through regular meetings as well as through monitoring of the program's activities as thoroughly reported in NCPA's weekly publication, *This Week at NCPA*, which outlines developments of a substantive and tactical nature with regard to the Legislative and Regulatory Affairs Program.

Key goals for the program include:

- 1) *Preserve and enhance local responsibility.*
- 2) *Promote public power and NCPA members' ability to serve customers with reliable and low-cost electrical service.*
- 3) *Advance NCPA as a credible solution-oriented leader.*
- 4) *Promote and support the environmentally and socially responsible records of NCPA members.*
- 5) *Provide timely communications and coordination to support strategic decision making and grassroots advocacy.*

## **NCPA Legislative & Regulatory Affairs Program's General Background**

The overall NCPA Legislative and Regulatory Affairs Program is comprised of four key program areas through which we advance our collective policy agenda. The program areas are: 1) Legislative; 2) Regulatory; 3) Western; and 4) Customer Programs. All four program areas are designed to integrate with and complement one another.

The NCPA *Legislative Program Area* encapsulates the advocacy efforts in both the U.S. Congress and the California State Legislature, as well as within the state and federal executive branches. This program is implemented through a grassroots initiative, which involves NCPA's elected officials and utility managers through the NCPA Legislative & Regulatory Affairs Committee.

The NCPA *Regulatory Program Area* provides advocacy support within state, federal, and regional regulatory agencies, including departments within the executive branch of both the state and federal government. This program also engages with the North American Electric Reliability Council.

The NCPA *Western Program Area* is an issue-focused advocacy program bridging both legislative and regulatory arenas. In addition to legislative and regulatory involvement, the Western Program maintains strong relationships for the Agency with representatives of the Western Area Power Administration and the Bureau of Reclamation, and works closely with these agencies to protect and preserve the vital Central Valley Project power resource.

The NCPA *Customer Programs Area* provides valuable data and information needed to comply with statutory energy and environmental reporting obligations—and collaborates with and provides leadership for statewide compliance efforts to ensure that credible and consistent data is provided to state agencies in a manner that will help prevent future legislative intrusions on local control. This program brings the value of joint action to the regulatory reporting arena by securing contractors for report modeling and online rebate tracking, highlighting best practices, promoting joint action in energy efficiency, electric vehicle deployment and other utility programs, and sharing costs in a manner that results in significant savings for NCPA members. This program also provides regulatory advocacy with regard to policy development related to utility customer programs.

# Power Management

FY 2021

Budget and Business Plan

## **ORGANIZATIONAL STRUCTURE**

The Power Management Business Unit is organized into one Program and four Subprograms as follows: Program: Power Management Administration; and Sub Programs; i) System Control and Local Dispatch; ii) Portfolio/Pool Management and Scheduling; iii) Contracts, Interconnection Services and External Affairs; and iv) Industry Restructuring and Regulatory Affairs. There are currently 26 full time staff positions filled within the Power Management Business Unit.

In addition to the Program and Subprograms described above, which are managed and administered through Power Management Business Unit, there are service charges that flow into the Power Management budget as line items (Information Systems) and two Subprograms (Energy Risk Management and a portion of Settlements) that are direct charged. The costs associated with these line items, Programs and Subprograms are independently managed and administered through the Administrative Services Business Unit with costs allocated pursuant to the Power Management and Administrative Services Cost Allocation Methodology.

The Power Management Business Unit also independently budgets, manages, charges and provides staff support to programs outside of the Power Management Program budget where separate project or program agreements have been created. Examples in this year's budget include, Gas Procurement for the STIG and CT's, the Market Purchase Program and the Natural Gas Purchase Program. Detail regarding this support can be found under the Generation Resources tab of the annual budget – under Other Resources for each of the projects and programs described above.

Detailed goals, expected work activity level and activity effectiveness measures have been outlined under individual Power Management Business Unit Program and Subprogram descriptions, located under the Management Services tab of the annual budget, and placed in this location in order that the activity and effort required to support the budget request can be found together, under the same tab, in the annual budget.

## **MISSION**

To provide cost-effective planning and operational excellence for our members.

## **GOALS**

Power Management Business Unit Goals for Fiscal Year 2021 consist of support of Agency goals, with a specific focus on the following elements of the overall Agency goals:

1. Enhance Member Communications and Reports
  - a. Renewable Portfolio Standard and Greenhouse Gas Based reporting capability
    - Load/Resource/RPS/GHG/RA balance summaries
      - Development of short/long term procurement plans
      - Risk assessments
      - Gap assessments
  - b. Asset strategy and operations reporting (e.g. hydro)
    - Qtrly/Semi Annual Reporting to Pool re: operating and bidding strategies
    - Collierville margin report
    - Lodi Energy Center margin report
2. Operate the Agency efficiently and effectively
  - a. Create and maintain headroom by growing revenue and managing costs
    - Operate the plants reliably and efficiently
    - Optimize and reduce cost for the Western resource
      - Monthly reporting on shaping value and displacement program results
    - Develop resource balances to support the hedging program for pool participants
    - Manage pool litigation and regulatory risks
      - Key CAISO Stakeholder Initiatives to follow (Resource Adequacy, Transmission Access Charge, Day-Ahead Market Enhancements, Regionalization/Governance)
  - b. Bring Agency internal policies and practices up to date
    - Update Western Assignment and Administration Agreement (AAA)
    - Develop contract obligation checklist
    - Ensure that risk management policies are applied in daily operations
    - Develop and expand use of user guides to explain NCPA systems and processes
    - Begin review of cost allocation model and development of recommended modifications (if any)
  - c. Develop/improve joint action and member relationships
    - Provide timely and meaningful communications
    - Expand reporting and data analytics available through NCPA Connect/Data Portal based on member preferences and needs
3. Operate effectively in CAISO market
  - a. Implement changes to market rules in systems and settlements
  - b. Provide effective and reliable dispatch and scheduling services
4. Integrate new members and service recipients into the Power Management services framework

- a. Proposal and Contract development
- b. System integration activities (planning, budgeting, scheduling, billing and settlements)
- c. Support Non-Member Customer activities

# **Administrative Services**

FY 2021  
Budget and Business Plan

## **Introduction**

The Administrative Services budget reflects NCPA's commitment to support members' participation in the market for energy transactions through:

- Purchases/sales,
- Supporting members flexibility in making their own energy decisions to optimize their individual resource mix,
- Providing risk management tools and procedures appropriate to protect members from adverse effects of significant swings in market energy prices and limiting members' exposure to the financial weaknesses of trading partners, and
- Transacting with the CAISO under the Metered Subsystem (MSS) Agreement.

In addition, the Administrative Services budget reflects NCPA's commitment to timely and accurate financial reporting, energy billing, and budget settlements, and ability to attract, develop and retain professional, high quality staff.

## **Purpose**

Provide to the NCPA Business Organization:

1. Financial information and facility infrastructure necessary to conduct business.
2. Effective administrative and technical services, which enhance the capability of the business units.
3. Support for Agency's business strategies through the acquisition, development and retention of human capital.

## **Goals**

1. In association with the Commission's Finance Committee, implement long-term debt service reduction plan using choices acceptable to project participants.
2. Develop and implement hardware, software and staffing as appropriate to support Scheduling Coordinator, Risk Management, CAISO Ancillary Services and Instructed Imbalance Energy, Pooling activities, and the metered subsystem concept with CAISO.
3. Implement Energy Risk Management Regulations and perform compliance audit.
4. Maintain NCPA creditworthiness with trading partners and respond to changes in counterparty creditworthiness.
5. Modify (1) management reports; (2) establish reserve requirements; and (3) modify billing methodology in accordance with Commission direction.
6. Implement strategic plan for information technology.

7. Establish Administration Services performance measures as listed below, and, where appropriate, control Administration Services performance parameters to industry benchmark goals.
  - a. Fiscal year-end settlements issued by December 31<sup>st</sup> of each year.
  - b. Process, validate and dispute daily CAISO settlement files within established payment calendars.
  - c. Monthly All Resources Bill produced and sent to members by 25<sup>th</sup> day of each month, which includes:
    - Estimated bill statement and support details for subsequent month;
    - Adjusted bill statement for prior one month period based on schedule data; and
    - Adjusted bill statement for prior periods, including any recalculated CAISO data from previous months based on CAISO settlement data and Settlement Quality Meter Data (SQMD).

### **Performance Measures**

1. Budget variance
2. Timeliness of bills
3. Number/dollars of successful CAISO settlement disputes granted
4. Maintenance of information systems identified as critical to achievement of NCPA's strategic goals, e.g.:
  - Metered subsystem CAISO model as modified for MRTU
  - Scheduling software – next generation
  - Energy/risk management systems
  - Accounting and reporting systems
5. Monitor the estimated aggregate liabilities for power transactions with the CAISO

### **Administrative Services**

Administrative Services currently has an approved staff level of 45 persons. This number includes five positions in the Executive Services Department, including General Manager, the General Counsel, Executive Assistant, Receptionist, and Manager NERC Compliance. The balance of the Administrative Services Division is organized into five departments. The Assistant General Manager/CFO oversees Accounting and Finance, Information Services including Power Settlements, Human Resources, Risk Management and General Services. Although a separate Administrative Services budget is prepared, it is allocated and liquidated to all Agency programs. Costs that are directly attributed to a specific program are directly passed through (e.g., property tax and debt service). Costs that cannot be directly attributed to a specific program are allocated based on NCPA member approved methods (e.g., the cost of owning, operating and maintaining the home office building).

## **Accounting & Finance**

Accounting and Finance currently has a staff of nine (9). Departmental staff administer the financial affairs of the Agency and manages accounting, budgeting, settlements, revenues, expenditures, and investments.

Among the department's specific products and services are the following:

**Accounting:** The department is responsible for traditional and electric public utility accounting in accordance with Generally Accepted accounting principles (GAAP), the Governmental Accounting Standards Board (GASB), and the Federal Energy Regulatory Commission (FERC) Uniform System of Accounts. Additionally, the department manages specialty accounting such as grant accounting, public fund accounting, and fixed asset accounting. Staff also manages and accounts for royalties and property taxes. The department works closely with the Agency management team to coordinate and develop the annual budget. Staff works closely with IS to perform the year-end settlements process during which actual annual costs are trued up with actual annual collections.

**Treasury Management:** Staff manages cash receipts, disbursements, and investment of cash in accordance with Agency policy, state code, contracts, and other laws. This includes the accounts receivable and payable functions responsible for managing the billing and collections and the vendor/consultant billing processes. Additionally, the Treasurer is responsible for development and implementation of investment strategies for the utilization of idle cash not needed in the course of operations; all such strategies must adhere to the following investment policy objectives:

- **Safety:** To safeguard the principal over which they have been granted stewardship
- **Liquidity:** To provide for liquidity- i.e., they must assure there is sufficient cash to meet the needs of the entity
- **Return on Investments:** To earn a reasonable market rate of return

The investment function includes the utilization of idle cash to earn a market rate of return, which will result in the offset of project and program costs to members and participants.

**Reporting:** staff is responsible for internal management reporting which includes unaudited monthly financial statements and monthly and annual cost and budget status reports and cost analyses, payroll reports, and settlement reports. The department also produces and participates in external reporting such as the annual report financial section, state and federal regulatory reporting, debt management continuing disclosure reporting, and special on demand reports for members, participants, and customers

Accounting and Finance also provides consulting services to other internal organizations and Agency members as requested.

## **Information Services**

Information Services (IS) has a staff of nineteen (19) full time employees. IS provides a variety of software, hardware and infrastructure for Roseville HQ and the plant sites. IS responds to requests from departments, as their needs and requirements are in constant flux, as a result of changing government regulations, market environments, and evolving business strategies. Individual work requests coming from department personnel are reviewed with the responsible person to reach agreement on the scope of work, and the schedule for completion. Costs of materials, labor and supplies are accumulated and billed to cost centers that are established in the approved budget. The IT Steering Committee provides oversight.

The primary work products are:

- Office Automation - An integrated system of personal computers networked together along with a standard suite of office productivity software is provided to each professional employee in the home and field offices. IS also supports and maintains the Agency's intranet and extranet sites as well as an increasing number of division team sites and cross-functional workspaces. In addition, special productivity needs are accommodated for traveling and remote users (e.g. secure remote access).
- Scheduling & Dispatch Support - Provide customized software needed to facilitate scheduling & dispatch of NCPA and other participant resources within the CAISO markets and for scheduling coordination and interchange management services to outside organizations. This also includes support for CVP Corp activities and scheduling into BANC.
- SCADA System Support - Provide software and hardware to support the monitoring and control of NCPA resources and loads. IS is responsible for operating and support of a Disaster Recovery Center (DRC) for the purpose of maintaining business continuity in the event of disturbance in operations at NCPA HQ.
- Accounting Support – Install, de-bug, and provide on-going support for the accounting software. Integrate the accounting software with other NCPA business software (e.g. billing, scheduling, work order and budgeting software).
- Member Transactions - Provide software and consulting services needed to schedule and track individual member and pool transactions, which are increasing in number and complexity as members take advantage of a variety of market transactions to reduce costs or account for renewable supplies. Review bills and respond to member questions each month.
- Nodal Market - Provide software and hardware needed to participate in the California wholesale energy market, (e.g. data links to CAISO and supporting software; a relational data base to provide a powerful information system in support of increased dispatch and scheduling activities); and billing support data as requested by members.
- Power Settlements – Provide software and infrastructure to support in the collection and validation of data; the estimation and verification of ISO charges; and eventual billing of all NCPA jointly owned projects and pool operations.
- Cyber Security – Maintain the security and auditability of NCPA's cyber systems in compliance with industry best practices.

- Payroll and Cost Accounting – The Agency supports a detailed and Agency-wide cost accounting system associated with time and expense tracking. The primary purpose of this system is to assign costs to labor categories across the Agency to facilitate accurate cost allocations to the various budget categories and programs.
- NCPA Data Portal and Web Services – This system provides secure data services for members to receive and send information data to NCPA. Currently, the system supports energy transactions from the market, water accounting, price indices, and selected settlement reports. The portal is accessed through a secure connection using NCPA issued security certificates. All security is maintained by NCPA staff.
- Business Design Support – Supports the development of new business requirements, business artifacts and change management activities in support of the Agency's various business systems and core processes in order to achieve organizational efficiency, agility, and transparency. Business artifacts include documentation related to Agency business process flow models, desktop procedures, state diagrams, control activities, organizational metadata, and taxonomy.

## **Power Settlements**

### **Goals**

The major goals of the Power Settlement department are to:

- Ensure data quality through validation and verification processes
- Produce accurate and timely billings to members in a transparent manner
- Perform contract administration requirements

### **Program Structure and Functional Responsibilities**

The following three functional responsibilities describe the major settlement activities performed by the Power Settlements department in support of its major goals.

### **Billing, Balancing & Settlements**

The Billing, Balancing & Settlements category is primarily composed of the following three settlement business activities: (1) Settlement Business Design and Management; (2) All Resources Bill (ARB) Administration; and (3) Contract Administration.

#### **1. Settlement Business Design and Management**

Work with Information Services to develop, test and accept updated software changes pursuant to evolving business requirements.

#### **2. All Resources Bill (ARB) Administration**

The NCPA ARB is a comprehensive, integrated monthly invoice related to the accounting and settlements for:

- Jointly owned projects
- Budgeted NCPA Project debt costs
- NCPA administrative costs
- Western Area Power Administration CVP and Base Resource costs
- NCPA and member Market Purchases and Sales
- Natural Gas fuel costs
- Verified and approved CAISO amounts

In addition, the ARB administration provides members with all necessary bill determinant detail support data and variance reports.

### **3. Contract Administration**

This business activity provides for the support of new or modified NCPA contracts among its members, including:

- Maintain Appendix B of the Scheduling Coordinator Program Agreement (SCPA) with updated CAISO settlement charge codes,
- Monitor SCPA Balancing Account requirements,
- Maintain requirements related to terms of Pooling Agreement,
- Monitor CAISO credit collateral requirements based on NCPA members' Unsecured Credit Limits and Estimated Aggregate Liability amounts, and
- Perform accounting and settlements in conformance with bilateral agreements among NCPA members for energy and capacity transactions.

#### **Deal Control Validation and Monitoring**

As a standard control activity, NCPA's Power Settlements staff each month validates and reconciles all bilateral energy purchases and sales transactions with NCPA's counter parties at the conclusion of each month for contracted quantities, terms, and prices. In addition, Power Settlement staff accounts for the financial settlement of any energy layoffs and book-outs that may result from energy curtailments or derated transmission line capacity.

#### **CAISO Data Validation and Monitoring**

This business function provides two integrated business activities. The first activity ensures the validation and verification of CAISO settlement bill determinants and settlement amounts received by the CAISO that are contained within daily CAISO settlement statements and invoices for each billing period.

Settlement verification is performed through comparison of CAISO settlement amounts and estimated NCPA amounts for each applicable settlement charge code. This validation activity further encompasses the business processes associated with the identification, research and resolution of disputed CAISO settlement amounts.

The second business activity provides for the allocation of CAISO Scheduling Coordinator charges and revenues to NCPA's Operating Entities, Energy Service Providers (ESP) and allocation to Pool members in conformance with Appendix B of the SCPA.

## **Human Resources**

Human Resources (HR) has a staff of three (3) full time employees and partners with management to ensure that the right talent with the right skills required to further NCPA's success are available when needed to support the Agency's business strategy. Human Resources supports the Agency's business strategies through the acquisition, development, and retention of human capital, through policies and programs that align business operations with Agency strategy, through measurable dollar savings, whenever possible, through process redesign and automation enabling employee self-service capability in support of NCPA's 24x7 operations, and through the delivery of value-added member focused programs. Human Resources staff is the Human Resources Manager, Human Resources Analyst and Human Resources Assistant.

Human Resources provides agency-wide operational and strategic support for all human capital related activities including:

- Talent recruitment, selection, orientation and on-boarding
- Employee engagement and workforce development
- Labor/Employee relations and contract negotiations
- Performance coaching and consulting
- Total rewards strategy, program design and administration
- Compensation, benefit plans, and recognition programs
- PERS Retirement Plan administration
- Performance management process and tools
- Workforce and succession planning
- Workplace safety programs and injury reporting
- Compliance with federal & state employment laws and regulations

Human Resources provides Member focused workforce development initiatives and training in support of Members' talent and workforce development needs. Sample programs include the NCPA Internship Program; Executive Leadership Development Program and various training classes, such as Rates 101, O-Calc Pro, etc.

## **Risk Management**

Risk Management provides oversight in energy wholesale operations and manages insurance risks. It conducts analyses on energy market risk and counterparty credit exposure and provides independent oversight on front office energy procurement transactions, ensuring compliance with NCPA adopted risk management policy and procedures. In addition, Risk Management also manages the Agency's property and liability insurance programs, commercial compliance program, coordinates the enterprise risk management program, etc.

Current budget designates one person to fulfill desired job functions. Risk management includes: market risk management, counterparty credit risk management, insurance program management, commercial compliance, and enterprise risk management.

### **Market Risk Management Program Functions & Goals**

#### ***1. Assess and manage NCPA portfolio market exposure***

Develop, update and maintain models and tools, gather and process market data, and conduct quantitative, financial and statistical analyses on:

- a. Portfolio risk exposures (cost Value at Risk) due to market price volatilities of the underlying commodities (gas and power);
- b. Mark to market position of term transactions and assess and monitor counterparty credit risk exposures; and
- c. Gas and power price movements, distribution and volatilities, and support front office energy procurement activities.

#### ***2. Conduct Risk Oversight Committee (ROC) and Risk Management Committee (RMC) meetings and activities***

Prepare and present risk management reports to ROC, upper management and member cities. Reporting package includes:

- a. Open position for the Pool and by individual member, on-peak and off-peak;
- b. Portfolio exposure to market price volatility (open position Cost Value at Risk);
- c. Mark to Market position of term contracts/transactions;
- d. Counterparty credit exposure, limits, and margin call status;
- e. Market analytics and update on gas & power price trends, distribution and volatilities; and
- f. Compliance review and exception (if any) reports.

#### ***3. Monitor economy and energy market development***

- a. Research and analyze macro and sector market events and development, including global and geopolitical events and development; and
- b. Analyze trends and driving factors of the energy commodity market movements.

#### **4. Update policy/procedures and ensure compliance**

- a. Develop, update, and implement energy risk management policies, procedures, and communications;
- b. Ensure compliance - provide independent oversight on wholesale energy operations, review deals and RFPs, ensure compliance with NCPA adopted policy & procedures and report on exceptions. Coordinate annual compliance audit.

#### **Counterparty Credit Risk Management Program Functions & Goals (Counter-party Credit Review & Analysis)**

Counterparty credit exposure changes as contract mark to market position changes resulting from energy market price volatility. NCPA energy risk management program actively manages counterparty credit exposure via timely credit evaluation & update and on-going event monitoring. The Agency also subscribes to Moody's KMV Credit Edge tool, which provides advance alert if any counterparty credit standing deteriorates and default probability increases. Specific functions and goals under this category include:

1. Timely evaluate counterparty credit worthiness, monitor market and credit events;
2. Monitor counterparty credit events;
3. Review, approve and recommend counterparty credit limits based on evaluations;
4. Ensure proper credit support from counterparties;
5. Negotiate and evaluate enabling (master) agreements with counterparties, ensuring compliance with NCPA credit risk management policy and regulations;
6. Review deals and RFPs, conduct Value at Risk analysis and assess potential credit exposures by counterparties; and
7. Update and implement counterparty credit risk management policy and procedures, ensure compliance and report on exceptions.

#### **Insurance Program Management**

1. Manage and market property & casualty insurance programs;
2. Review insurance proposals and prepare supporting documents;
3. File new and renewal insurance applications, evaluate quotes on premium, coverage and extensions;
4. Facilitate premium and exposure audits, settle disputes; and
5. Manage and settle claims.

#### **Commercial Compliance and Enterprise Risk Management**

1. Organize periodical training and annual certification;
2. Coordinate periodic compliance auditing; and
3. Coordinate outside parties and consultants in developing an ERM program for the Agency.

## **General Services**

General Services is administered and managed by one person because most facility related services have been outsourced. General Services provides a productive working environment and related services to all employees, adding value to their ability to function effectively, while protecting NCPA's investment in the building, grounds and contents.

Responsible for:

- The maintenance and operation of the building, including janitorial, landscape, HVAC, repairs, telecommunications and energy efficiency.
- The facility's security, including surveillance equipment, and building access controls.
- The equipment and furniture (procurement, maintenance, surplus and training).
- Long-range facility planning, including renovation, new construction and interior space allocation.
- Risk mitigation (safety), including fire protection, ergonomics, building environmental controls, indoor air quality monitoring, and regulatory compliance.
- Administration of contracts for maintenance, services and equipment.

## **NORTHERN CALIFORNIA POWER AGENCY PLANTS & PLANT TRANSMISSION**

### **HYDROELECTRIC FEATURES**

**COLLIERVILLE POWERHOUSE** - Two 126.5 MW Nameplate Units (maximum combined output 243 MW)

Collierville to PG&E Bellota Substation - 35 mile 230 kV double-circuit transmission line

**NEW SPICER MEADOW DAM & RESERVOIR** - 5.7 MW Nameplate (3 units); 189,000-acre feet storage

Spicer Switchyard to PG&E Cabbage Patch Substation - 11 mile 21 kV underground line

**NORTHFORK DIVERSION DAM**

**MCKAYS POINT DIVERSION ARCH DAM**

**BEAVER CREEK DIVERSION DAM & RESERVOIR**

**LAKE ALPINE, UNION RESERVOIR & UTICA RESERVOIR**

**SITE BUILDING & WAREHOUSE FACILITY** - Murphys, California

### **GEO THERMAL FEATURES**

**PLANT NO. 1** - Two 55 MW Nameplate Low Pressure Units

Castle Rock to Lakeville Substation - 4.14% ownership interest (49.9 MW) in 25 mile 230 kV double-circuit line

**PLANT NO. 2** - Two 55 MW Nameplate Low Pressure Units

Castle Rock to Lakeville Substation - 24 MW firm transmission entitlement in 230 kV double-circuit line

**STEAM FIELD** - Two BLM Federal leaseholds; Steam wells provide steam (fuel) to Plants

**SHARED FACILITIES** - Warehouse, Site Building, Machine & Auto Shop, Environmental Testing Lab

**GEYSERS EFFLUENT PIPELINE PROJECT** – 5 mile 21 KV distribution line from plant No. 1 to three Effluent pumping stations

Pumps tertiary treated water from Lakeport, CA to steam field for injection to supplement steam

**SITE BUILDING & WAREHOUSE FACILITY** - Cobb Mountain, CA

**TAP LINE** - NCPA Plants to PG&E Tower 3/18 - 2.1 mile 230 kV double-circuit line. Calpine No. 16 also uses line

### **COMBUSTION TURBINE NO. 1 FEATURES**

**ALAMEDA** - Two 24.8 MW Nameplate Units

**LODI** - One 24.8 MW Nameplate Unit

**SITE BUILDING & WAREHOUSE FACILITY** - Lodi, CA

### **COMBUSTION TURBINE NO. 2 (STIG) FEATURES**

**LODI** - One 49.9 MW Nameplate Unit

**SITE BUILDING & WAREHOUSE FACILITY** - Lodi, CA

### **LODI ENERGY CENTER (LEC) FEATURES**

**LODI** - One 296.0 MW Nameplate Unit

**SITE BUILDING & WAREHOUSE FACILITY** - Lodi, CA

Northern California Power Agency  
Generation Resources - NCPA Plants Plant Transmission  
Comparative Annual Budget Report

	Hydro Project	Geothermal	CT No.1	CT No.2	LEC	Gen Svcs Shared	Proposed FY 2021	FY 2020	Increase/ (Decrease)
Routine O&M Costs									
Variable	-	840,000	29,498	72,552	5,436,362	-	6,378,412	6,446,330	(67,918)
Fixed	1,502,000	4,979,125	817,954	487,319	2,717,065	76,401	10,579,864	10,019,781	560,083
Cloud Seeding / Steam Royalties*	408,000	1,432,387	-	-	-	-	1,840,387	1,721,000	119,387
Administration	147,350	452,500	44,232	49,705	211,377	50,937	956,101	978,255	(22,154)
Mandatory Costs	1,719,500	342,000	190,157	78,423	309,455	-	2,639,535	2,548,957	90,578
Inventory	-	-	45,000	15,000	-	-	60,000	60,000	-
Transmission O&M	403,500	85,000	-	-	-	-	488,500	454,000	34,500
Routine O&M Costs w/o Labor	4,180,350	8,131,012	1,126,841	702,999	8,674,259	127,338	22,942,799	22,228,323	714,476
Labor	5,389,265	11,121,191	1,193,226	880,502	5,789,039	1,307,647	25,680,870	24,721,463	959,407
Total Routine O&M Costs	9,569,615	19,252,203	2,320,067	1,583,501	14,463,298	1,434,985	48,623,669	46,949,786	1,673,883
Other Costs									
Fuel and Pipeline Transport Charges*	250,000	-	968,646	910,006	32,955,703	-	35,084,355	41,752,564	(6,668,209)
GHG Allowance Costs	-	-	-	43,229	8,695,359	-	8,738,588	-	8,738,588
CA ISO Charges*	324,909	334,250	7,477	2,335	780,841	-	1,449,812	1,545,646	(95,834)
CA ISO Energy Purchases*	2,290,333	199,980	86,515	38,045	3,049,750	-	5,664,623	7,376,429	(1,711,806)
Debt Service	33,388,263	4,950,461	-	4,826,162	26,023,835	-	69,188,721	70,103,434	(914,713)
Other Costs	1,227,079	3,781,990	157,630	108,237	1,004,884	61,230	6,341,050	5,801,105	539,945
Generation Services Shared	330,392	680,871	75,579	55,661	353,712	(1,496,215)	-	-	-
Administrative & General	1,999,779	3,776,637	600,664	385,403	2,317,930	-	9,080,413	8,143,347	937,066
Power Management Allocated Costs	-	-	-	-	1,523,860	-	1,523,860	1,439,156	84,704
Total O&M Costs	49,380,370	32,976,392	4,216,578	7,952,579	91,169,172	-	185,695,091	183,111,467	2,583,624
Projects									
Operations & Maintenance	440,000	-	2,250,000	30,000	1,060,956	-	3,780,956	2,608,933	1,172,023
General & Plant	65,000	-	-	-	-	-	65,000	60,000	5,000
Capital	-	585,000	117,000	6,500	6,500	-	715,000	3,380,858	(2,665,858)
Maintenance Reserve	-	2,000,000	1,300,000	-	1,838,332	-	5,138,332	5,776,110	(637,778)
Capital Development Reserve	4,375,000	-	-	-	-	-	4,375,000	4,455,000	(80,000)
Total Projects Costs	4,880,000	2,585,000	3,667,000	36,500	2,905,788	-	14,074,288	16,280,901	(2,206,613)
<b>Annual Budget Cost</b>	<b>54,260,370</b>	<b>35,561,392</b>	<b>7,883,578</b>	<b>7,989,079</b>	<b>94,074,960</b>	<b>-</b>	<b>199,769,379</b>	<b>199,392,368</b>	<b>377,011</b>
Less: Third Party Revenues									
ISO Energy Sales	22,147,432	25,810,526	1,311,400	398,662	55,590,251	-	105,258,271	127,623,712	(22,365,441)
Ancillary Services Sales	2,276,106	-	-	-	1,711,986	-	3,988,092	3,971,745	16,347
Transmission Sales	-	110,376	-	-	-	-	110,376	110,376	-
Effluent Revenues	-	750,000	-	-	-	-	750,000	750,000	-
Fuel and Pipeline Transport Credits	-	-	-	1,820,720	-	-	1,820,720	1,687,279	133,441
GHG Allowance Credits	-	-	-	43,229	8,463,375	-	8,506,604	-	8,506,604
Interest Income	669,988	382,165	-	108,662	385,845	-	1,546,660	1,546,660	-
Other Income	-	2,500	-	-	-	-	2,500	2,500	-
	25,093,526	27,055,567	1,311,400	2,371,273	66,151,457	-	121,983,223	135,692,272	(13,709,049)
<b>Net Annual Budget Cost to Participants</b>	<b>29,166,844</b>	<b>8,505,825</b>	<b>6,572,178</b>	<b>5,617,806</b>	<b>27,923,503</b>	<b>-</b>	<b>77,786,156</b>	<b>63,700,096</b>	<b>14,086,060</b>

Northern California Power Agency  
Generation Resources - NCPA Plants Plant Transmission  
Comparative Annual Budget Report

	<b>Hydro Project</b>	<b>Geothermal</b>	<b>CT No.1</b>	<b>CT No.2</b>	<b>LEC</b>	<b>Gen Svcs Shared</b>	<b>Proposed FY 2021</b>	<b>FY 2020</b>	<b>Increase/ (Decrease)</b>
Plant Cost	51,231,936	35,467,725	7,883,578	7,989,079	94,074,960	-	196,647,278	196,324,942	322,336
Plant Transmission Cost	3,028,434	93,667	-	-	-	-	3,122,101	3,067,426	54,675
	54,260,370	35,561,392	7,883,578	7,989,079	94,074,960	-	199,769,379	199,392,368	377,011
Variable Costs*	2,615,242	2,806,617	1,060,363	309,970	50,918,015	-	57,710,207	56,986,728	723,479
Fixed Costs	51,645,128	32,754,775	6,823,215	7,679,109	43,156,945	-	142,059,172	142,405,640	(346,468)
	54,260,370	35,561,392	7,883,578	7,989,079	94,074,960	-	199,769,379	199,392,368	377,011
Net Annual Generation (Mwh)	508,507	738,552	15,641	4,987	1,316,988	-	2,584,675	2,907,494	(322,819)

# Hydroelectric Project No. One

FY 2021

## Specific Assumptions and Rationale

### **General**

NCPA is proud of our renewable resource hydro project that is located on the North Fork of the Stanislaus River in Alpine, Calaveras, and Tuolumne Counties. The Project, which has the capacity to generate 260 megawatts of power, includes the New Spicer Meadow Dam, Reservoir, and Powerhouse, two diversion dams and tunnels, the McKay's Point Reservoir with a power tunnel to the Collierville Powerhouse, and two generator 230 kV tie lines. Additionally, the Project includes three small storage reservoirs: Lake Alpine, Union Reservoir and Utica Reservoir.

The North Fork Stanislaus River Hydroelectric Development Project is a joint development project between NCPA and the Calaveras County Water District (CCWD). CCWD is the licensee and NCPA is the project operator.

This plant produces clean, low cost, renewable energy for our members in an environmentally sound manner, plus provides recreation opportunities.

Participating members are Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Roseville, Santa Clara, Ukiah and the Plumas-Sierra Rural Electric Cooperative.

NCPA has contracted with CCWD, and has financed the Hydroelectric Project No. One in exchange for the rights to manage the construction, operate the generating facilities, and receive the electric output of the project for 50 years (from February 1982), with an option to continue to purchase power in excess of the CCWD requirements for the subsequent FERC License term.

Because NCPA has financed the construction of the Hydroelectric Project as a take-or-pay obligation, the costs shown in this budget are also essentially take-or-pay obligations. No provision for rate stabilization has been included in this budget as an operating cost. Therefore, this is the individual 'participants' responsibility.

### **Operations & Maintenance**

**Generation** – Actual generation may vary subject to operating criteria approved by the Commission during the year, water year hydrology, and actual reservoir capacity available. As of December 31, 2019, New Spicer Reservoir contained approximately 89,702 acre feet of storage, which is slightly above the average (since 1990) carry over storage of 79,372 acre feet. Some storage is typically recommended to be carried over from year to year and held in reserve to mitigate future dry years.

### **Maintenance/Capital Development Reserve**

Based on experience and standard utility practice, NCPA has historically maintained a maintenance reserve at an average level of approximately \$250,000. Maintenance Reserves have been established to both fund and pay for:

- Anticipated costs of estimated scheduled overhauls;
- Deductible portion of an insured loss (currently \$500,000 or more depending on the type of loss); and
- Unanticipated; but, Commission approved, cost overruns, extraordinary repairs and maintenance not budgeted in either the maintenance expense accounts or in the maintenance reserve.

During FY 2002 the Agency recovered from insurers approximately \$2.25 million (net of FEMA reimbursement) in connection with the 1997 flood and Darby fire. These funds are being retained in a Capital Development Reserve account pending the future clean out of the McKays Dam Reservoir. Preliminary planning for the clean out are proceeding. Planned Capital Development Reserve annual additions will continue until the project is complete. Annual additions are also planned to help fund sediment removal from Beaver Creek Diversion Dam on an as-needed basis. In FY 2019 and again in FY 2020, Capital Development Reserve funds were spent on the Collierville Generator rewind project. At the end of FY 2019, the Initial Facilities Account and Capital Development Reserve account had an approximate total combined balance of \$19 million. An additional \$4,375,000 is proposed for collection in FY 2021. The total cost to clean out the McKays Dam Reservoir is anticipated to exceed \$31,000,000.

### **Project Asset**

In addition to the proposed \$4,375,000 contribution to the Capital Development Reserve account, the Hydro FY 2021 budget proposes several Operations and Maintenance projects and replacement of one O&M vehicle (utility truck). The Operation and Maintenance Projects include maintenance to Union Dam and Lake Alpine Dam, Collierville transformer maintenance, and control system hardware upgrades.

Northern California Power Agency  
Hydroelectric Project No. One  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Budget Increase/ (Decrease)
<b>Routine O&amp;M Costs</b>						
Fixed	\$1,457,000	\$1,423,838	\$1,490,500	\$625,509	\$1,502,000	\$11,500
Cloud Seeding	270,000	205,591	290,000	51,437	408,000	118,000
Administration	162,100	99,087	156,393	39,480	147,350	(9,043)
Mandatory Costs	1,563,000	1,596,545	1,649,500	468,249	1,719,500	70,000
Transmission O & M	269,000	319,920	369,000	192,514	403,500	34,500
Routine O&M Costs w/o Labor	3,721,100	3,644,981	3,955,393	1,377,189	4,180,350	224,957
Labor	4,913,827	4,537,916	5,220,337	2,417,901	5,389,265	168,928
<b>Total Routine O&amp;M Costs</b>	<b>8,634,927</b>	<b>8,182,897</b>	<b>9,175,730</b>	<b>3,795,090</b>	<b>9,569,615</b>	<b>393,885</b>
<b>Other Costs</b>						
Water for Power	50,000	453,952	175,000	140,589	250,000	75,000
CA ISO Charges (variable)	259,304	453,811	333,493	403,791	324,909	(8,584)
CA ISO Energy Purchases (variable)	2,541,965	3,515,607	3,131,208	1,342,555	2,290,333	(840,875)
Debt Service	35,156,824	33,081,316	33,306,862	16,653,431	33,388,263	81,401
Other Costs	998,171	1,178,354	1,029,864	419,424	1,227,079	197,215
Generation Services Shared	342,698	267,030	313,623	184,308	330,392	16,769
Administrative & General	1,897,626	1,773,928	1,833,321	787,249	1,999,779	166,458
<b>Total O&amp;M Costs</b>	<b>49,881,515</b>	<b>48,906,895</b>	<b>49,299,101</b>	<b>23,726,437</b>	<b>49,380,370</b>	<b>81,269</b>
<b>Projects</b>						
Operations & Maintenance	720,000	691,955	260,000	170,876	440,000	180,000
General & Plant	80,000	80,000	60,000	67,713	65,000	5,000
Capital Development Reserve	1,175,000	1,175,000	4,455,000	2,227,500	4,375,000	(80,000)
<b>Total Projects Costs</b>	<b>1,975,000</b>	<b>1,946,955</b>	<b>4,775,000</b>	<b>2,466,089</b>	<b>4,880,000</b>	<b>105,000</b>
<b>Annual Budget Cost</b>	<b>51,856,515</b>	<b>50,853,850</b>	<b>54,074,101</b>	<b>26,192,526</b>	<b>54,260,370</b>	<b>186,269</b>
<b>Less: Third Party Revenues</b>						
ISO Energy Sales	20,783,056	40,521,636	23,455,277	9,663,473	22,147,432	(1,307,845)
Ancillary Services Sales	3,047,569	4,900,236	2,539,212	2,698,895	2,276,106	(263,106)
Interest Income	669,988	585,323	669,988	253,675	669,988	0
Other Revenues	0	5,514	0	127,845	0	0
	24,500,613	46,012,709	26,664,477	12,743,888	25,093,526	(1,570,951)
<b>Net Annual Budget Cost to Participants</b>	<b>\$27,355,902</b>	<b>\$4,841,141</b>	<b>\$27,409,624</b>	<b>\$13,448,638</b>	<b>\$29,166,844</b>	<b>\$1,757,220</b>
<b>Total Plant Budget Cost</b>	<b>\$48,840,503</b>	<b>\$47,952,601</b>	<b>\$51,099,153</b>	<b>\$24,698,367</b>	<b>\$51,231,936</b>	<b>\$132,783</b>
<b>Total Transmission Budget Cost</b>	<b>3,016,012</b>	<b>2,901,249</b>	<b>2,974,948</b>	<b>1,494,159</b>	<b>3,028,434</b>	<b>53,486</b>
	<b>\$51,856,515</b>	<b>\$50,853,850</b>	<b>\$54,074,101</b>	<b>\$26,192,526</b>	<b>\$54,260,370</b>	<b>\$186,269</b>
<b>Variable Costs</b>	<b>\$2,801,269</b>	<b>\$3,969,418</b>	<b>\$3,464,701</b>	<b>\$1,746,346</b>	<b>\$2,615,242</b>	<b>(\$849,459)</b>
<b>Fixed Costs</b>	<b>49,055,246</b>	<b>46,884,432</b>	<b>50,609,400</b>	<b>24,446,180</b>	<b>51,645,128</b>	<b>1,035,728</b>
	<b>\$51,856,515</b>	<b>\$50,853,850</b>	<b>\$54,074,101</b>	<b>\$26,192,526</b>	<b>\$54,260,370</b>	<b>\$186,269</b>
<b>Net Annual Generation (MWh)</b>	<b>506,307</b>	<b>852,256</b>	<b>508,897</b>	<b>231,107</b>	<b>508,507</b>	<b>(390)</b>
<b>Net Annual Budget Costs per MWh</b>	<b>\$54</b>	<b>\$6</b>	<b>\$54</b>	<b>\$58</b>	<b>\$57</b>	<b>\$3</b>
<b>Variable Costs per MWh</b>	<b>\$6</b>	<b>\$5</b>	<b>\$7</b>	<b>\$8</b>	<b>\$5</b>	<b>-32</b>
<b>Fixed Costs per KW Month</b>	<b>\$16</b>	<b>\$16</b>	<b>\$17</b>	<b>\$8</b>	<b>\$17</b>	<b>\$0</b>

**Northern California Power Agency  
Hydroelectric Project No. One  
Projects Detail**

Project	Notes	Total	Current FY 2020	Proposed FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030
<b>Operations &amp; Maintenance (O&amp;M)</b>													
11563 Part 12 Study	M	n/a	\$ -	\$ -	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ 125,000	\$ -	\$ -	\$ -
Paint CV Crane & Bridge	M	250,000	-	-	-	-	-	-	250,000	-	-	-	-
SCADA Upgrade	D	175,000	100,000	-	75,000	-	-	-	-	-	-	-	-
CV Tunnel Intake Transfer Trip	D	100,000	-	-	-	-	100,000	-	-	-	-	-	-
CV Units Beckwith Generator Protection	D	35,000	-	-	35,000	-	-	-	-	-	-	-	-
CV Turbine Instrumentation Upgrade	D	50,000	-	-	-	50,000	-	-	-	-	-	-	-
Union Slide Gate Replacement	M	350,000	-	-	-	350,000	-	-	-	-	-	-	-
2409 Part 12 Study	M	n/a	150,000	-	-	-	-	175,000	-	-	-	-	175,000
Infrastructure Improvement	M	10,000	10,000	-	-	-	-	-	-	-	-	-	-
Control System Hardware Upgrade	D	90,000	-	90,000	-	-	-	-	-	-	-	-	-
CV Transformer Maintenance	D	300,000	-	100,000	100,000	100,000	-	-	-	-	-	-	-
Lake Alpine LLO Improvements	D	100,000	-	100,000	-	-	-	-	-	-	-	-	-
Union Dam Maintenance	D	450,000	-	150,000	150,000	150,000	-	-	-	-	-	-	-
Unidentified Projects	A, D	n/a	-	-	750,000	500,000	1,000,000	750,000	750,000	1,000,000	1,000,000	1,000,000	1,000,000
Total O&M Funding Requirements			\$ 1,910,000	\$ 260,000	\$ 440,000	\$ 1,235,000	\$ 1,150,000	\$ 1,100,000	\$ 925,000	\$ 1,000,000	\$ 1,125,000	\$ 1,000,000	\$ 1,175,000

Project	Notes	Total	Current FY 2020	Proposed FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030
<b>General &amp; Plant</b>													
Vehicle Replacement	D	n/a	\$ 60,000	\$ 65,000	\$ 65,000	\$ 85,000	\$ 65,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Spicer Snow Cat Building	D	200,000	-	-	-	-	-	200,000	-	-	-	-	-
Microwave Radio Replacement	D	650,000	-	-	300,000	350,000	-	-	-	-	-	-	-
Snow Cat	D	150,000	-	-	-	-	150,000	-	-	-	-	-	-
Unidentified Projects	A, D	n/a	-	-	250,000	500,000	750,000	500,000	750,000	750,000	750,000	750,000	750,000
Total General & Plant Funding Requirements			\$ 1,000,000	\$ 60,000	\$ 65,000	\$ 615,000	\$ 935,000	\$ 965,000	\$ 700,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000

Notes:

- A Amounts are forecasted for planning purpose. Amounts are not included budget until projects have been identified.
- D Discretionary
- M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K

The above Capital Projects listing serves as a planning & budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies and guidelines will be applied as costs are incurred.

**Northern California Power Agency  
Hydroelectric Project No. One  
Capital Development Reserve**

	Notes	Total	Current Budget FY 2020	Proposed FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030
<b>RESERVE FUNDING REQUIREMENTS</b>													
McKay's Reservoir & Dam Betterment (Clean Out)	M, CR	\$ 16,250,000	\$ 3,000,000	\$ 4,250,000	\$ 4,500,000	\$ 4,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Generator Rewind	M, CR	1,330,000	1,330,000	-	-	-	-	-	-	-	-	-	-
FERC Relicensing	M, CR	-	-	-	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Wildfire Mitigation Project - Reimbursement	M, CR	-	-	-	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Beaver Creek Dredging *	M, CR	1,375,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000
Total Reserve Funding Requirements		18,955,000	4,455,000	4,375,000	4,625,000	4,625,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000
Funding From Settlements (non-GES, see SR: 239:18)**		1,052,176											
<b>RESERVE DISBURSEMENTS</b>													
McKay's Reservoir & Dam Betterment (Clean Out)		(31,058,317)	(450,000)	(350,000)	(200,000)	(30,058,317)	-	-	-	-	-	-	-
Generator Rewind		(2,000,609)	(2,000,609)	-	-	-	-	-	-	-	-	-	-
Wildfire Mitigation Project		(3,000,000)	-	(3,000,000)	-	-	-	-	-	-	-	-	-
Beaver Creek Dredging		(2,010,097)	-	-	-	(550,000)	-	-	-	-	-	(1,460,097)	-
Total Reserve Disbursements		(38,069,023)	(2,450,609)	(3,350,000)	(200,000)	(30,058,317)	(550,000)	-	-	-	-	(1,460,097)	-
Estimated Capital Development Reserve Net Ending Balance			\$ 22,246,570	\$ 23,271,570	\$ 27,696,570	\$ 2,263,253	\$ 1,838,253	\$ 1,963,253	\$ 2,088,253	\$ 2,213,253	\$ 2,338,253	\$ 1,003,156	\$ 1,128,156
<b>Total Reserve Balance at 6/30/19</b>		<b>\$ 19,190,003</b>											

CR Annual deposit to the Capital Development to assist Project participants in smoothing or spreading the cost impact of such items over a period of years. The cost of individual items will be spread over a period not less than three (3) years and not more than ten(10) years. Aggregate annual member contributions to fund future capital additions, replacements or betterments to existing facilities are to be held in the Capital Development Reserve until the related expenditures from the Reserve have been approved.

M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K

The above Capital Development Reserve listing serves as a planning and budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies, and guidelines will be applied as costs are incurred.

\* Beaver Creek Dredging, originally an O&M project in 2014, was moved to the Capital Development Reserve to spread the collecting over a period of years until the work is completed.

\*\* Additional funding from FY18 settlements retained by NCPA for McKay's Reservoir & Dam Betterment (Clean Out) (December 2018)

**Northern California Power Agency  
Hydroelectric Project No. One  
Capital Development Reserve  
Historical Transactions Summary FY 2008-2019**

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total
<b>RESERVE FUNDING</b>													
Member Collections:													
McKay's Reservoir & Dam Betterment (Clean Out)	\$8,373,567	\$ 384,750	\$ -	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 15,508,317
Environmental Work - McKay's Cleanout	-	-	-	40,000	57,910	40,000	40,000	-	-	-	-	-	177,910
Generator Rewind	500,000	916,662	-	750,000	750,000	410,947	500,000	250,000	250,000	250,000	200,000	300,000	5,077,609
Beaver Creak Dredging	-	-	-	324,597	-	-	-	300,000	125,000	125,000	125,000	125,000	1,124,597
Funding from Settlements	-	-	-	-	-	-	-	-	-	-	-	1,052,176	1,052,176
Interest Earned	357,832	159,612	32,912	60,944	77,036	70,724	57,425	101,240	176,589	215,082	199,126	473,583	1,982,105
Total Collections and Earnings	9,231,399	1,461,024	32,912	1,925,541	1,634,946	1,271,671	1,347,425	1,401,240	1,301,589	1,340,082	1,274,126	2,700,759	24,922,714
<b>RESERVE DISBURSEMENTS</b>													
Interest Refunded	(179,848)	(108,019)	(22,174)	(34,798)	-	-	-	-	-	-	-	-	(344,839)
Construction Costs, Union/Utica/McKay's Reservoir *	(328,000)	(82,000)	(246,000)	-	(99,910)	-	-	-	-	-	-	-	(755,910)
Construction Costs, Lake Alpine *	-	-	(208,978)	-	-	-	-	-	-	-	-	-	(208,978)
Construction Costs, Generator Rewinds*	-	-	-	-	-	-	-	-	-	-	-	(4,422,984)	(4,422,984)
Total Disbursements	(507,848)	(190,019)	(477,152)	(34,798)	(99,910)	-	-	-	-	-	-	(4,422,984)	(5,732,711)
Net Increase (Decrease)	8,723,551	1,271,005	(444,240)	1,890,743	1,535,036	1,271,671	1,347,425	1,401,240	1,301,589	1,340,082	1,274,126	(1,722,225)	19,190,003
Total Reserve Balance	\$8,723,551	\$9,994,556	\$9,550,316	\$11,441,059	\$12,976,095	\$14,247,766	\$15,595,191	\$16,996,431	\$18,298,020	\$19,638,102	\$20,912,228	\$19,190,003	\$ 19,190,003

\* Details regarding construction disbursements can be found in NCPA staff reports 130:3, 134:6, 150:7, and 120:18.

Northern California Power Agency  
Hydroelectric Project No. One  
Maintenance Reserve  
Budget FY 2021

Maintenance Reserves are set aside for the purpose of funding unanticipated, but Commission approved, cost overruns, extraordinary repairs, and maintenance not budgeted. Fund balances and annual replenishments are affected through the annual operating budget. The maintenance Reserve is held in two components:

- \* **Annual Maintenance Contingency** for the purpose of funding annual maintenance overruns, unanticipated annual maintenance and annual maintenance costs not budgeted, and
  - \* **Long-Term Maintenance Reserve** for anticipated costs of future estimated scheduled overhauls and other major projects as anticipated in the annual budget.
- Generally the projects are significant in scope and cost, planned for completion in future years and affect the long term viability of the project. Funding is spread over a period of years to mitigate the cash flow demands. Funds should not be considered available to augment the annual budget or replace the Annual Maintenance Contingency.

Funding/(Expenditures)	Beginning Balance											
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Authorized Contingency Balance	<u>\$250,000</u>											
<b>Reserve Activity</b>												
Contingent maint.	250,000											
Annual Funding Req. *		-	-	-	-	-	-	-	-	-	-	-
<b>Balance</b>	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
* Estimated												

Northern California Power Agency  
Hydroelectric Project Allocation of Project Budget  
FY 2021

	Allocated by	Total	Alameda	Healdsburg	Lodi	Lompoc	Palo Alto	Plumas-Sierra	Roseville	SVP	Ukiah
ALLOCATION PERCENTAGES:											
Generation Entitlement Share <sup>1</sup>	GES	100.0000%	10.0000%	1.6600%	10.3700%	2.3000%	22.9200%	1.6900%	12.0000%	37.0200%	2.0400%
PROJECTED MWH		508,507	50,851	8,441	52,732	11,696	116,550	8,594	61,021	188,249	10,374
PROJECT COSTS:											
Routine O&M:											
Fixed costs	GES	\$ 1,502,000	\$ 150,200	\$ 24,933	\$ 155,757	\$ 34,546	\$ 344,258	\$ 25,384	\$ 180,240	\$ 556,040	\$ 30,641
Cloud Seeding	GES	408,000	40,800	6,773	42,310	9,384	93,514	6,895	48,960	151,042	8,323
Administration	GES	147,350	14,735	2,446	15,280	3,389	33,773	2,490	17,682	54,549	3,006
Mandatory costs	GES	1,719,500	171,950	28,544	178,312	39,549	394,109	29,060	206,340	636,559	35,078
Transmission O&M	GES	403,500	40,350	6,698	41,843	9,281	92,482	6,819	48,420	149,376	8,231
Labor	GES	5,389,265	538,927	89,462	558,867	123,953	1,235,220	91,079	646,712	1,995,106	109,941
Other Costs:											
Water for Power	GES	250,000	25,000	4,150	25,925	5,750	57,300	4,225	30,000	92,550	5,100
CAISO charges	Note A	324,909	32,491	5,393	33,693	7,473	74,469	5,491	38,990	120,281	6,629
CAISO Energy Purchaes	Note A	2,290,333	229,033	38,020	237,507	52,678	524,945	38,707	274,840	847,881	46,723
Debt service	Note B	33,388,263	3,473,455	412,990	3,601,973	798,895	7,961,159	587,014	2,985,464	12,858,730	708,585
Other costs	GES	1,227,079	122,708	20,370	127,248	28,223	281,247	20,738	147,249	454,265	25,032
Generation Services Shared	GES	330,392	33,039	5,485	34,262	7,599	75,726	5,584	39,647	122,311	6,740
Administrative & General	GES	1,999,779	199,978	33,196	207,377	45,995	458,349	33,796	239,973	740,318	40,795
Projects:											
O&M	GES	440,000	44,000	7,304	45,628	10,120	100,848	7,436	52,800	162,888	8,976
General Plant	GES	65,000	6,500	1,079	6,741	1,495	14,898	1,099	7,800	24,063	1,326
Capital Development Reserve	GES	4,375,000	437,500	72,625	453,688	100,625	1,002,750	73,938	525,000	1,619,625	89,250
Total Project Costs	GES	54,260,370	5,560,666	759,466	5,766,410	1,278,953	12,745,046	939,752	5,490,118	20,585,584	1,134,376
Project Revenues											
ISO Energy sales		22,147,432	2,214,743	367,647	2,296,689	509,391	5,076,192	374,291	2,657,692	8,198,979	451,808
Ancillary services sales	Note C	2,276,106	227,611	37,783	236,032	52,350	521,684	38,466	273,133	842,615	46,432
Interest income	GES	669,988	66,999	11,122	69,478	15,410	153,561	11,323	80,399	248,030	13,668
Total Project Revenues		25,093,526	2,509,353	416,553	2,602,199	577,151	5,751,437	424,080	3,011,223	9,289,624	511,907
<b>Annual Project Costs, net</b>		<b>\$ 29,166,844</b>	<b>\$ 3,051,313</b>	<b>\$ 342,914</b>	<b>\$ 3,164,211</b>	<b>\$ 701,802</b>	<b>\$ 6,993,609</b>	<b>\$ 515,672</b>	<b>\$ 2,478,895</b>	<b>\$ 11,295,960</b>	<b>\$ 622,469</b>
<b>Estimated price per Mwh</b>		<b>\$ 57.36</b>	<b>\$ 60.01</b>	<b>\$ 40.62</b>	<b>\$ 60.01</b>	<b>\$ 60.01</b>	<b>\$ 60.01</b>	<b>\$ 60.01</b>	<b>\$ 40.62</b>	<b>\$ 60.01</b>	<b>\$ 60.01</b>
FY 2020 Net Annual Project Costs											
Net Project Cost Increase		\$ 1,757,220	\$ 149,487	\$ 24,299	\$ 155,019	\$ 34,386	\$ 342,628	\$ 25,266	\$ 437,807	\$ 557,832	\$ 30,497
		6.41%	5.15%	7.63%	5.15%	5.15%	5.15%	5.15%	21.45%	5.19%	5.15%
Summary of Variable and Fixed Project Costs:											
Variable Costs		\$ 324,909	\$ 32,491	\$ 5,393	\$ 33,693	\$ 7,473	\$ 74,469	\$ 5,491	\$ 38,990	\$ 120,281	\$ 6,629
Fixed Costs		53,935,461	5,528,175	754,073	5,732,717	1,271,480	12,670,577	934,262	5,451,128	20,465,303	1,127,748
		\$ 54,260,370	\$ 5,560,666	\$ 759,466	\$ 5,766,410	\$ 1,278,953	\$ 12,745,046	\$ 939,752	\$ 5,490,118	\$ 20,585,584	\$ 1,134,376

<sup>1</sup> Generation Entitlement Share (GES) is synonymous with commonly used terms of Project Entitlement Share, Project Percentage, Project Share, Third Phase Share.

**Note A:** CAISO charges include grid management charges (allocated based on GES) and energy purchases. Energy purchases are allocated based on the expected market participation of the three Energy Service Provider (ESP) entities (Roseville, SVP, and NCPA pool). Roseville does not participate in reg-up or reg-down activities and therefore does not incur any energy purchase costs, but does incur grid management charges.

**Note B:** Debt service was adjusted to reflect Healdsburg and Roseville opt out of the 2002 project refinancing (and subsequent related refinancings).

**Note C:** Ancillary services to the Pool and SVP only.

# Geothermal Project

Narrative - FY 2021  
Specific Assumptions and Rationale

## General

The Geothermal Project is comprised of Plant No. One, Plant No. Two, the Steam Field, and all improvements, including reclaimed water facilities, pipelines, appurtenances and pumping equipment installed to arrest steam field degradation, photovoltaic systems and other existing and future betterments and improvements. The Project is considered a single shared resource operated in accordance with the Project No. 3 Third Phase Agreement and the Amended and Restated Geothermal Project Operating Agreement.

## Plant Operations & Maintenance

Geothermal Plant No. One is projected to operate at an initial capacity of 55.4 MWG beginning in FY 2021, based on current steamfield conditions. Reservoir decline of 2% is expected during the year, which will lower output by 0.7 MW by the end of the 2021 fiscal year.

Geothermal Plant No. Two is projected to operate at an initial capacity of 41 MWG beginning in FY 2021, with average generation declining about 0.9 MW during the fiscal year.

Actual generation varies throughout the year due to changing steam field and plant conditions. The estimate of future energy generation for the NCPA geothermal plants is based on the approved Two Zone Geothermal Operating Protocol and includes anticipated plant and field effects such as scheduled unit outages and the forecasted benefits derived from current projects such as the Effluent Pipeline upgrade. Plant 1 will continue to provide power to the Effluent Pipeline Project under terms of a contract between NCPA and Calpine.

	<u>Plant No. One</u>	<u>Plant No. Two</u>
Plant Energy		
(Operating capability – both units – initial for fiscal year)	55.4 MWG	41 MWG
Capacity Factor (units 1, 2 & 4, nameplate of 55 MW))	50.0%	73.8%
Availability Factor (both units, <1% forced outage rate)	99 %	99%
Nominal Steam Rate @ Gross (both units)	16.9 lbs/kWh	17.5 lbs/kWh
Unit Overhauls or Outages (scheduled)	Unit 1 – 72 hours	Unit 3 – Out of Service
	Unit 2 – 72 hours	Unit 4 – 72 hours,
Total Net Generation Forecasted (takes into account 8.3 MW house load)	409,764 MWhr net	328,872 MWhr net

### Assumptions:

Unit One down, Unit 2 goes to 40 MW, loss of 14 MW

Unit Four down, Plant 1 picks up 50%, total field loss of 30 MW

Steam used in Plant Nos. One and Two is obtained from geothermal steam wells located on leased federal land adjacent to the plants. Steam availability is expected to be sufficient to supply both plants with the steam required for scheduled generation of initially 100 MW gross. Total reservoir decline is anticipated to be 1.5 MW during the fiscal year. The GEO Steam Field continues to operate under the Commission approved Two Zone Protocol. These federal leases provide for the payment of royalties to the Mineral Management Service (MMS) amounting to 10.0% of the value of steam produced from the wells. The value of steam is based on 36% of a replacement valuation methodology utilizing NCPA/SVP weighted average arms length contract purchase prices. MMS approved this methodology commencing in January 2001 and royalty payments are estimated at about \$2.25 per MWh, net.

### **Capital Asset Acquisitions, Replacements & Betterments**

FY 2021 O&M and Capital Projects totaling \$1,485,000 include:

<b><u>Project</u></b>	<b><u>Amount</u></b>
Plant #1 Fire Modernization (Capital)	\$800,000
Plant #1 MCC Breakers (Capital)	\$100,000
FMS Control Systems Upgrade (Capital)	\$100,000
Plant #1 and #2 Door Replacements (Capital)	\$150,000
Network Infrastructure Improvement (Capital)	\$60,000
Geo Admin and Maintenance Facility Upgrade (Capital)	\$50,000
Plant #2 Diesel Tank (Capital)	\$100,000
Vehicle Replacements (Capital)	\$125,000
<b>Total</b>	<b>\$1,485,000</b>

### **Property & Other Taxes**

Property taxes are estimated in accordance with formal agreements between the Agency and the appropriate taxing authorities.

### **Maintenance Reserve**

Based on experience and standard utility practice, NCPA has historically maintained a minimum maintenance reserve of approximately \$2,250,000 for the facility. Maintenance Reserves have been established to both fund and pay for:

- Anticipated costs of estimated scheduled overhauls;
- Deductible portion of an insured loss (currently \$500,000 or more depending on the type of loss); and
- Unanticipated; but, Commission approved, cost overruns, extraordinary repairs and maintenance not budgeted in either the maintenance expense accounts or in the maintenance reserve.

Northern California Power Agency  
Geothermal Plants  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	Proposed FY 2021 Budget	Increase/ (Decrease)
Routine O&M Costs						
Variable	\$932,000	\$817,342	\$910,000	\$472,085	\$840,000	(\$70,000)
Fixed	4,016,700	5,460,253	4,515,000	2,458,736	4,979,125	464,125
Steam Royalties (variable)	1,431,000	1,381,488	1,431,000	495,515	1,432,387	1,387
Administration	419,000	516,306	468,000	234,171	452,500	(15,500)
Mandatory Costs	327,000	344,417	327,000	333,487	342,000	15,000
Inventory	375,000	0	0	0	0	0
Transmission O & M	85,000	74,510	85,000	23,791	85,000	0
Routine O&M Costs w/o Labor	7,585,700	8,594,316	7,736,000	4,017,785	8,131,012	395,012
Labor	10,207,255	10,555,612	10,719,924	5,175,834	11,121,191	401,267
Total Routine O&M Costs	17,792,955	19,149,928	18,455,924	9,193,619	19,252,203	796,279
Other Costs						
Debt Service	4,936,896	4,936,896	4,945,723	2,472,862	4,950,461	4,738
CA ISO Charges (variable)	291,380	955,631	624,704	517,218	534,230	(90,474)
Other Costs	3,677,465	3,519,197	3,682,610	1,787,738	3,781,990	99,380
Generation Services Shared	696,831	629,056	637,707	374,779	680,871	43,164
Administrative & General	3,763,042	3,704,133	3,319,343	1,425,890	3,776,637	457,294
Total O&M Costs	31,158,569	32,894,841	31,666,011	15,772,106	32,976,392	1,310,381
Projects						
Operations & Maintenance	55,000	(221,437)	200,000	36,838	0	(200,000)
Capital	525,000	1,040,361	815,000	531,686	585,000	(230,000)
Maintenance Reserve	2,686,842	2,686,842	2,630,000	1,315,000	2,000,000	(630,000)
Total Projects Costs	3,266,842	3,505,766	3,645,000	1,883,524	2,585,000	(1,060,000)
<b>Annual Budget Cost</b>	<b>34,425,411</b>	<b>36,400,607</b>	<b>35,311,011</b>	<b>17,655,630</b>	<b>35,561,392</b>	<b>250,381</b>
Less: Third Party Revenues						
ISO Energy Sales	26,284,634	33,894,724	29,480,578	11,019,681	25,810,526	(3,670,052)
Interest Income	382,165	429,915	382,165	135,517	382,165	0
Transmission Sales	110,376	110,376	110,376	45,990	110,376	0
Effluent Revenue	700,000	2,076,957	750,000	269,724	750,000	0
Other Income	0	7,121	2,500	524	2,500	0
	27,477,175	36,519,093	30,725,619	11,471,436	27,055,567	(3,670,052)
<b>Net Annual Budget Cost to Participants</b>	<b>\$6,948,236</b>	<b>(\$118,486)</b>	<b>\$4,585,392</b>	<b>\$6,184,194</b>	<b>\$8,505,825</b>	<b>\$3,920,433</b>
Total Plant Budget Cost	\$34,332,082	\$36,318,639	\$35,218,533	\$17,628,990	\$35,467,725	\$249,192
Total Transmission Budget Cost	93,329	81,968	92,478	26,640	93,667	1,189
	<u>\$34,425,411</u>	<u>\$36,400,607</u>	<u>\$35,311,011</u>	<u>\$17,655,630</u>	<u>\$35,561,392</u>	<u>\$250,381</u>
Total Variable Costs	\$2,654,380	\$3,154,461	\$2,965,704	\$1,484,818	\$2,806,617	(\$159,087)
Total Fixed Costs	31,771,031	33,246,146	32,345,307	16,170,812	32,754,775	409,468
	<u>\$34,425,411</u>	<u>\$36,400,607</u>	<u>\$35,311,011</u>	<u>\$17,655,630</u>	<u>\$35,561,392</u>	<u>\$250,381</u>
Net Annual Generation (MWh)	748,471	849,418	776,885	303,995	738,552	(38,333)
Net Annual Budget Costs per MWh	\$9	(\$0)	\$6	\$20	\$12	\$6
Variable Costs per MWh	\$4	\$4	\$4	\$5	\$4	(\$0)
Fixed Costs per KW Month	\$28	\$29	\$28	\$14	\$28	\$0

**Northern California Power Agency  
Geothermal Project  
Projects Detail**

Project	Notes	Total	FY 2020 Budget	Proposed FY 2021 Budget	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030
<b>Operations &amp; Maintenance (O&amp;M)</b>													
Plant, Yard & Road Repairs	D	\$ 2,539,777	\$ -	\$ -	\$ 250,000	\$ 257,500	\$ 265,225	\$ 273,182	\$ 281,377	\$ 289,819	\$ 298,513	\$ 307,468	\$ 316,693
Plant 1 Turbine Lube Oil Replacement	D	175,000	-	-	-	-	-	175,000	-	-	-	-	-
Emergency Shower & Eyewash Stations	M	200,000	200,000	-	-	-	-	-	-	-	-	-	-
CSSP Cyber Monitoring System	D	-	-	-	-	-	-	-	-	-	-	-	-
Undefined Projects	D/M	4,500,000	-	-	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Total O&M Projects Funding Requirement		<u>\$ 7,414,777</u>	<u>\$ 200,000</u>	<u>\$ -</u>	<u>\$ 750,000</u>	<u>\$ 757,500</u>	<u>\$ 765,225</u>	<u>\$ 948,182</u>	<u>\$ 781,377</u>	<u>\$ 789,819</u>	<u>\$ 798,513</u>	<u>\$ 807,468</u>	<u>\$ 816,693</u>

D Discretionary  
M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K

The above O&M Projects (Betterments and Improvements) listing serves as a planning & budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies and guidelines will be applied as costs are incurred.

Project	Notes	Total	FY 2020 Budget	Proposed FY 2021 Budget	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030
<b>Capital</b>													
Plant #1 Fire System Modernization	M	\$ 900,000	\$ 100,000	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plant #1 MCC Breakers	D	200,000	100,000	100,000	-	-	-	-	-	-	-	-	-
FMS Control Systems Upgrade	D	150,000	-	100,000	50,000	-	-	-	-	-	-	-	-
Plant #1 & #2 Door Replacements	D	300,000	150,000	150,000	-	-	-	-	-	-	-	-	-
Network Infrastructure Improvement	D	60,000	-	60,000	-	-	-	-	-	-	-	-	-
Geo Admin and Maintenance Facility Upgrade	D	225,000	-	50,000	75,000	100,000	-	-	-	-	-	-	-
Plant #2 Diesel Tank	M	600,000	-	100,000	450,000	50,000	-	-	-	-	-	-	-
Vehicle Replacements	D	1,697,985	265,000	125,000	128,750	132,613	136,591	140,689	144,909	149,257	153,734	158,346	163,097
Plant 1 Steam Ejector Upgrade	D	-	-	-	-	-	-	-	-	-	-	-	-
Plant 2 Steam Ejector Upgrade	D	200,000	200,000	-	-	-	-	-	-	-	-	-	-
Ball Cleaning System Upgrade	D	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Projects Funding Requirement		<u>\$ 1,897,985</u>	<u>\$ 465,000</u>	<u>\$ 1,485,000</u>	<u>\$ 703,750</u>	<u>\$ 282,613</u>	<u>\$ 136,591</u>	<u>\$ 140,689</u>	<u>\$ 144,909</u>	<u>\$ 149,257</u>	<u>\$ 153,734</u>	<u>\$ 158,346</u>	<u>\$ 163,097</u>

**Projects Funded Through Geo 2012 A&B Construction Bond Proceeds**

Plant #1 Fire System Modernization	\$ (800,000)	\$ -	\$ (800,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plant #1 MCC Breakers	(100,000)	-	(100,000)	-	-	-	-	-	-	-	-	-	-
Total Projects Funded Through Geo 2012 A&B Reserve Fund Release	<u>\$ (900,000)</u>	<u>\$ -</u>	<u>\$ (900,000)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Capital Projects Funding Requirement (Net)	<u>\$ 997,985</u>	<u>\$ 465,000</u>	<u>\$ 585,000</u>	<u>\$ 703,750</u>	<u>\$ 282,613</u>	<u>\$ 136,591</u>	<u>\$ 140,689</u>	<u>\$ 144,909</u>	<u>\$ 149,257</u>	<u>\$ 153,734</u>	<u>\$ 158,346</u>	<u>\$ 163,097</u>	

Notes:  
D Discretionary  
M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K

The above Capital Projects listing serves as a planning & budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies and guidelines will be applied as costs are incurred.

**Northern California Power Agency  
Geothermal Project  
Maintenance Reserve  
Budget FY 2021**

**Maintenance Reserves are set aside for the purpose of funding unanticipated, but Commission approved, cost overruns, extraordinary repairs, and maintenance not budgeted. Fund balances and annual replenishments are affected through the annual operating budget. The maintenance Reserve is held in two components:**

\* **Annual Maintenance Contingency** for the purpose of funding annual maintenance overruns, unanticipated annual maintenance and annual maintenance costs not budgeted, and

\* **Long-Term Maintenance Reserve** for anticipated costs of future estimated scheduled overhauls and other major projects as anticipated in the annual budget. Generally the projects are significant in scope and cost, planned for completion in future years and affect the long-term viability of the project. Funding is spread over a period of years to mitigate the cash flow demands. Funds should not be considered available to augment the annual budget or replace the Annual Maintenance Contingency.

Funding/(Expenditures)	Beginning Balance	FY19 Projects											
		Deferred to FY20	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Reserve Activity													
Unit One Overhaul		(40,000)						(2,500,000)					
Unit Two Overhaul		(100,000)						(3,000,000)					
Unit Four Overhaul					(3,500,000)						(3,500,000)		
Well Replacement /Workover	3,047,862	(4,300,000)	(3,000,000)				(3,000,000)			(3,500,000)			
Contingent maintenance	2,250,000												
Projected Requirements		(4,440,000)	(3,000,000)	-	(3,500,000)	-	(3,000,000)	(5,500,000)	-	(3,500,000)	(3,500,000)	-	-
Annual Funding Req*	5,297,862		2,630,000	2,000,000	2,630,000	2,630,000	2,630,000	2,630,000	2,630,000	2,630,000	2,630,000	2,630,000	2,630,000
Balance	5,297,862	857,862	487,862	2,487,862	1,617,862	4,247,862	3,877,862	1,007,862	3,637,862	2,767,862	1,897,862	4,527,862	7,157,862
Minimum Emergency Contingency Balance	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000	\$ 2,250,000
*Estimated													

Northern California Power Agency  
Geothermal Project Allocation of Project Budget  
FY 2021

	Allocated by	Total	Alameda	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Plumas-Sierra	Roseville	SVP	TID	Ukiah
ALLOCATION PERCENTAGES:													
Generation Entitlement Share <sup>1</sup>	GES	100.0000%	16.8825%	0.2270%	0.3360%	3.6740%	10.2800%	3.6810%	0.7010%	7.8830%	44.3905%	6.3305%	5.6145%
Transmission - Plant 1 <sup>2</sup>	Plant 1	100.0000%	33.0636%		0.7365%	7.1711%	32.1066%	7.2019%	1.5855%	7.1711%			10.9639%
Transmission - Plant 2 <sup>2</sup>	Plant 2	100.0000%	28.4970%	0.6892%	0.5131%	6.2183%	9.1089%	6.2183%	1.0369%	18.9980%		19.2212%	9.4990%
PROJECTED MWH													
		738,552	124,686	1,677	2,482	27,134	75,923	27,186	5,177	58,220	327,847	46,754	41,466
PROJECT COSTS:													
Routine O&M:													
Variable costs	GES	\$ 840,000	\$ 141,813	\$ 1,907	\$ 2,822	\$ 30,862	\$ 86,352	\$ 30,920	\$ 5,888	\$ 66,217	\$ 372,880	\$ 53,176	\$ 47,162
Fixed costs	GES	4,979,125	840,601	11,303	16,730	182,933	511,854	183,282	34,904	392,504	2,210,258	315,204	279,553
Steam royalties	GES	1,432,387	241,823	3,252	4,813	52,626	147,249	52,726	10,041	112,915	635,844	90,677	80,421
Administration	GES	452,500	76,393	1,027	1,520	16,625	46,517	16,657	3,172	35,671	200,867	28,646	25,406
Mandatory costs	GES	342,000	57,738	776	1,149	12,565	35,158	12,589	2,397	26,960	151,816	21,650	19,202
Inventory	GES	-	-	-	-	-	-	-	-	-	-	-	-
Transmission O&M - Plant 1 <sup>2</sup>	Plant 1	50,000	16,532	-	368	3,586	16,053	3,601	793	3,586	-	-	5,482
Transmission O&M - Plant 2 <sup>2</sup>	Plant 2	35,000	9,974	241	180	2,176	3,188	2,176	363	6,649	-	6,727	3,325
Labor	GES	11,121,191	1,877,535	25,245	37,367	408,593	1,143,258	409,371	77,960	876,683	4,936,752	704,027	624,399
Other Costs:													
Debt service	GES	4,950,461	835,762	11,238	16,634	181,880	508,907	182,226	34,703	390,245	2,197,534	313,389	277,944
CAISO charges	GES	534,230	90,191	1,213	1,795	19,628	54,919	19,664	3,745	42,114	237,147	33,820	29,995
Other costs	GES	3,781,990	638,494	8,585	12,707	138,950	388,789	139,215	26,512	298,134	1,678,844	239,419	212,340
Generation Services Shared	GES	680,871	114,948	1,546	2,288	25,015	69,994	25,063	4,773	53,673	302,242	43,103	38,228
Administrative & General	GES	3,767,970	636,128	8,553	12,660	138,435	387,347	138,699	26,413	297,029	1,672,621	238,531	211,553
Transmission A&G - Plant 1 <sup>2</sup>	Plant 1	5,098	1,686	-	38	366	1,637	367	81	366	-	-	559
Transmission A&G - Plant 2 <sup>2</sup>	Plant 2	3,569	1,017	25	18	222	325	222	37	678	-	686	339
Projects:													
O&M	GES	-	-	-	-	-	-	-	-	-	-	-	-
Capital	GES	585,000	98,763	1,328	1,966	21,493	60,138	21,534	4,101	46,116	259,684	37,033	32,845
Maintenance Reserve	GES	2,000,000	337,650	4,540	6,720	73,480	205,600	73,620	14,020	157,660	887,810	126,610	112,290
Total Project Costs	GES	35,561,392	6,017,047	80,778	119,775	1,309,434	3,667,285	1,311,932	249,902	2,807,200	15,744,300	2,252,699	2,001,041
Project Revenues													
ISO Energy sales	GES	25,810,526	4,357,462	58,590	86,723	948,279	2,653,322	950,085	180,932	2,034,644	11,457,422	1,633,935	1,449,132
Transmission sales	GES	110,376	18,634	251	371	4,055	11,347	4,063	774	8,701	48,996	6,987	6,197
Effluent revenues	GES	750,000	126,619	1,703	2,520	27,555	77,100	27,608	5,258	59,123	332,929	47,479	42,109
Interest income	GES	382,165	64,519	868	1,284	14,041	39,287	14,067	2,679	30,126	169,645	24,193	21,457
Other Income	GES	2,500	422	6	8	92	257	92	18	197	1,110	158	140
Total Project Revenues		27,055,567	4,567,656	61,416	90,907	994,022	2,781,312	995,915	189,660	2,132,790	12,010,101	1,712,753	1,519,035
Annual Project Expense, net													
		\$ 8,505,825	\$ 1,449,391	\$ 19,361	\$ 28,868	\$ 315,412	\$ 885,973	\$ 316,017	\$ 60,242	\$ 674,410	\$ 3,734,199	\$ 539,946	\$ 482,006
Estimated price per Mwh													
		\$ 11.52	\$ 11.62	\$ 11.55	\$ 11.63	\$ 11.62	\$ 11.67	\$ 11.62	\$ 11.64	\$ 11.58	\$ 11.39	\$ 11.55	\$ 11.62
FY 2020 Net Annual Project Costs													
		\$ 4,585,392	\$ 787,354	\$ 10,461	\$ 15,692	\$ 171,339	\$ 482,806	\$ 171,670	\$ 32,753	\$ 365,312	\$ 1,994,427	\$ 291,743	\$ 261,836
Net Project Revenue Decrease													
		\$ 3,920,433	\$ 662,037	\$ 8,900	\$ 13,176	\$ 144,074	\$ 403,167	\$ 144,347	\$ 27,490	\$ 309,098	\$ 1,739,772	\$ 248,203	\$ 220,170
		85.50%	84.08%	85.08%	83.96%	84.09%	83.51%	84.08%	83.93%	84.61%	87.23%	85.08%	84.09%
Summary of Variable and Fixed Project Costs:													
Variable Costs		\$ 2,806,617	\$ 473,827	\$ 6,371	\$ 9,430	\$ 103,115	\$ 288,520	\$ 103,312	\$ 19,674	\$ 221,246	\$ 1,245,871	\$ 177,673	\$ 157,578
Fixed Costs		32,754,775	5,543,220	74,407	110,345	1,206,318	3,378,765	1,208,621	230,227	2,585,955	14,498,429	2,075,026	1,843,463
		\$ 35,561,392	\$ 6,017,047	\$ 80,778	\$ 119,775	\$ 1,309,434	\$ 3,667,285	\$ 1,311,932	\$ 249,902	\$ 2,807,200	\$ 15,744,300	\$ 2,252,699	\$ 2,001,041

<sup>1</sup> Generation Entitlement Share (GES) is synonymous with commonly used terms of Project Entitlement Share, Project Percentage, Project Share, Third Phase Share.

<sup>2</sup> Transmission allocation percentages differ from plant allocation percentages. See budget Section D for Plant Transmission Allocation Methodology

# Combustion Turbine No. One

FY 2021

## Specific Assumptions and Rationale

### **General**

Participating members for the Combustion Turbine Project No. One are Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Santa Clara, Ukiah and the Plumas-Sierra Rural Electric Cooperative. Combustion Turbine Project No. One provides the Agency with a source of power for peak demand periods, emergency backup and reserve requirements. These members also receive value by avoiding high bilateral market prices based on the projects capacity.

### **Operations & Maintenance**

The primary operational cost for this project is natural gas. The total cost for natural gas included in the budget is based on a forecasted level of generation, which may or may not reflect the actual level of operations during the budget year. Therefore, the amount billed for natural gas could vary from the amount shown in this budget. Maintenance expenses include labor, materials and supplies necessary to the ongoing maintenance of all three units.

### **Maintenance Reserve**

Based on experience and standard utility practice, NCPA has historically maintained a maintenance reserve at an average level of approximately \$250,000. Maintenance Reserves have been established to both fund and pay for:

- Deductible portion of an insured loss (currently \$500,000 or more depending on the type of loss);
- A contingency account of \$250,000 is being planned as operations of these units has significantly changed, causing consistent overruns in annual routine budget accounts;
- Unanticipated but Commission approved, cost overruns, extraordinary repairs and maintenance not budgeted in the maintenance expense accounts; and
- An additional maintenance reserve funding has been included to assist in levelizing the costs of major maintenance activities. The total Maintenance Reserve funding is \$1,300,000 for FY 2021.

### **Operations & Maintenance Project Costs**

We are anticipating O&M project totaling \$2,250,000 and Capital project totaling \$117,000 for FY 2021.

Northern California Power Agency  
Combustion Turbine No. One  
Annual Operating Cost Summary Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
<b>Routine O &amp; M Costs</b>						
Variable	\$10,948	\$53,252	\$24,275	\$5,852	\$29,498	\$5,223
Fixed	422,593	1,146,118	814,624	299,242	817,954	3,330
Administration	49,237	63,416	44,064	19,659	44,232	168
Mandatory Costs	154,344	181,084	190,157	87,820	190,157	0
Inventory Stock	45,000	0	45,000	0	45,000	0
Routine O & M Costs without Labor	682,122	1,443,870	1,118,120	412,573	1,126,841	8,721
Labor	878,043	1,419,431	1,149,968	512,291	1,193,226	43,258
Total Routine O & M Costs	1,560,165	2,863,301	2,268,088	924,864	2,320,067	51,979
<b>Other Plant Costs</b>						
Fuel & LDC Costs	472,620	1,180,992	947,997	294,733	936,873	(11,124)
Fuel Administrative Costs	24,715	41,936	27,302	14,424	31,773	4,471
CA ISO Charges (variable)	2,915	561,165	69,300	164,326	93,992	24,692
Insurance	105,685	104,483	110,905	51,064	137,230	26,325
Other Costs	20,440	0	20,400	0	20,400	0
Generation Services Shared	63,072	86,420	72,600	42,641	75,579	2,979
Administrative & General	391,089	542,917	542,938	232,952	600,664	57,726
Total O & M Costs	2,640,701	5,381,214	4,059,530	1,725,004	4,216,578	157,048
<b>Projects</b>						
Operations & Maintenance	2,065,000	1,375,705	750,000	605,519	2,250,000	1,500,000
Capital	0	0	60,000	0	117,000	57,000
Maintenance Reserve	3,400,000	3,400,000	1,300,000	650,000	1,300,000	0
Total Projects	5,465,000	4,775,705	2,110,000	1,255,519	3,667,000	1,557,000
<b>Annual Budget Cost</b>	<b>8,105,701</b>	<b>10,156,919</b>	<b>6,169,530</b>	<b>2,980,523</b>	<b>7,883,578</b>	<b>1,714,048</b>
<b>Less: Third Party Revenue</b>						
ISO Energy Sales	572,344	1,995,626	1,266,004	683,973	1,311,400	45,396
Interest Income	0	1,396	0	9,917	0	0
Other Income	0	17,234	0	15,644	0	0
	572,344	2,014,256	1,266,004	709,534	1,311,400	45,396
<b>Net Annual Costs To Participants</b>	<b>\$7,533,357</b>	<b>\$8,142,663</b>	<b>\$4,903,526</b>	<b>\$2,270,989</b>	<b>\$6,572,178</b>	<b>\$1,668,652</b>
Total Variable Costs	\$486,483	\$1,795,409	\$1,041,572	\$464,911	\$1,060,363	\$18,791
Total Fixed Costs	7,619,218	8,361,510	5,127,958	2,515,612	6,823,215	1,695,257
	<b>\$8,105,701</b>	<b>\$10,156,919</b>	<b>\$6,169,530</b>	<b>\$2,980,523</b>	<b>\$7,883,578</b>	<b>\$1,714,048</b>
Net Annual Generation (MWh)	7,532	11,251	13,042	3,478	15,641	2,599
Net Annual Budget Cost per MWh	\$1,000	\$724	\$376	\$653	\$420	\$44
Variable Costs per MWh	\$65	\$160	\$80	\$134	\$68	(\$12)
Fixed Costs per KW Month	\$8	\$9	\$6	\$3	\$8	\$2

**Northern California Power Agency  
Combustion Turbine No. One  
Projects Detail**

			FY 2020	Proposed	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
			Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Projects	Notes	Total											
<b>Operations &amp; Maintenance (O&amp;M)</b>													
Generator Circuit Breaker Upgrade	D	\$ 750,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Switchyard Relay Upgrades	D	275,000	-	-	-	-	275,000	-	-	-	-	-	-
MCC Upgrade	D	1,100,000	-	-	-	-	1,100,000	-	-	-	-	-	-
AVR/Excitation Upgrade	D	1,200,000	-	-	1,200,000	-	-	-	-	-	-	-	-
Electric Start/TG/Emissions Control	D	2,250,000	-	<b>2,250,000</b>	-	-	-	-	-	-	-	-	-
Control System	D	1,700,000	-	-	-	1,700,000	-	-	-	-	-	-	-
Gas Plants Shared Projects	D	1,200,000	-	-	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Total O&M Projects Funding Requirement		<b>\$ 8,475,000</b>	<b>\$ 750,000</b>	<b>\$ 2,250,000</b>	<b>\$ 1,350,000</b>	<b>\$ 1,850,000</b>	<b>\$ 1,525,000</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>	<b>\$ 150,000</b>
<b>Capital</b>													
Vehicles	D	\$ 645,000	\$ 60,000	\$ <b>117,000</b>	\$ 117,000	\$ 117,000	\$ 117,000	\$ 117,000	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capital Projects Funding Requirement		<b>\$ 645,000</b>	<b>\$ 60,000</b>	<b>\$ 117,000</b>	<b>\$ 117,000</b>	<b>\$ 117,000</b>	<b>\$ 117,000</b>	<b>\$ 117,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Notes:

- D Discretionary
- M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100k

The above Capital Projects listing serves as a planning & budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies and guidelines will be applied as costs are incurred

**Northern California Power Agency  
Maintenance Reserves - Combustion Turbine No. One  
Budget FY 2021**

**Maintenance Reserves are set aside for the purpose of funding unanticipated, but Commission approved, cost overruns, extraordinary repairs, and maintenance not budgeted. Fund balances and annual replenishments are affected through the annual operating budget. The maintenance Reserve is held in two components:**

- \* **Annual Maintenance Contingency** for the purpose of funding annual maintenance overruns, unanticipated annual maintenance and annual maintenance costs not budgeted, and
- \* **Long-Term Maintenance Reserve** for anticipated costs of future estimated scheduled overhauls and other major projects as anticipated in the annual budget. Generally the projects are significant in scope and cost, planned for completion in future years and affect the long term viability of the project. Funding is spread over a period of years to mitigate the cash flow demands. Funds should not be considered available to augment the annual budget or replace the Annual Maintenance Contingency.

In the FY2013 operations budget, funding was approved for a maintenance reserve to specifically provide cash for the first five year overhaul. The reserve is to cover those costs not covered under the Siemens LTSA (FY2018). Based on actual operating experience, the timing and requirements of the overhaul have changed and are reflected below.

<b>Funding/(Expenditures)</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
Beginning Reserve Balance	2,075,117	-	-	-	-	-	-	-	-	-	-
Combustion Turbine Lodi	(28,000)	(15,914)	(310,000)	(16,883)	(31,514)	(800,775)	-	(71,169)	(472,121)	(20,159)	-
Combustion Turbine ALA1	-	(120,000)	(29,705)	(40,000)	-	-	(87,637)	(993,637)	-	-	(39,921)
Combustion Turbine ALA2	(28,000)	(45,000)	(2,850,000)	(40,000)	(31,514)	-	(52,167)	-	(35,470)	(1,054,149)	-
Generators	(400,000)	(200,000)	-	-	-	-	-	(100,000)	(1,013,416)	-	-
Balance of Plant	-	(118,000)	-	-	-	-	(253,000)	-	-	-	-
Projected Requirements	(456,000)	(498,914)	(3,189,705)	(96,883)	(63,028)	(800,775)	(392,804)	(1,164,806)	(1,521,007)	(1,074,308)	(39,921)
<b>Funding Requirement</b>	1,300,000	1,300,000	1,300,000	700,000	714,000	728,280	742,846	757,703	772,857	788,314	804,080
Cumulative Balance	\$ 2,919,117	\$ 3,720,204	\$ 1,830,498	\$ 2,433,616	\$ 3,084,587	\$ 3,012,092	\$ 3,362,134	\$ 2,955,031	\$ 2,206,882	\$ 1,920,888	\$ 2,685,047

Northern California Power Agency  
Combustion Turbine No.1 Allocation of Project Budget  
FY 2021

	Allocated by	Total	Alameda	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Plumas-Sierra	SVP	Ukiah
ALLOCATION PERCENTAGES:											
Generation Entitlement Share <sup>1</sup>	GES	100.0000%	21.8200%	0.1967%	0.3500%	5.8333%	13.3933%	5.8333%	1.8167%	41.6667%	9.0900%
PROJECTED MWH		15,641	3,413	31	55	912	2,095	912	284	6,517	1,422
PROJECT COSTS:											
Routine O&M:											
Variable costs	GES	\$ 29,498	\$ 6,436	\$ 58	\$ 103	\$ 1,721	\$ 3,951	\$ 1,721	\$ 536	\$ 12,291	\$ 2,681
Fixed costs	GES	817,954	178,478	1,609	2,863	47,714	109,551	47,714	14,860	340,814	74,352
Administration	GES	44,232	9,651	87	155	2,580	5,924	2,580	804	18,430	4,021
Mandatory costs	GES	190,157	41,492	374	666	11,092	25,468	11,092	3,455	79,232	17,285
Inventory	GES	45,000	9,819	89	158	2,625	6,027	2,625	818	18,750	4,091
Labor	GES	1,193,226	260,362	2,347	4,176	69,604	159,812	69,604	21,677	497,178	108,464
Other Costs:											
Fuel and LDC costs	GES	936,873	204,426	1,846	3,279	54,648	125,475	54,648	17,023	390,367	85,162
Fuel administration costs	GES	31,773	6,933	62	111	1,853	4,255	1,853	577	13,239	2,888
CAISO charges	GES	93,992	20,509	185	329	5,483	12,588	5,483	1,708	39,164	8,544
Insurance	GES	137,230	29,944	270	480	8,005	18,380	8,005	2,493	57,179	12,474
Other costs	GES	20,400	4,451	40	71	1,190	2,732	1,190	371	8,500	1,854
Generation Services Shared	GES	75,579	16,491	149	265	4,409	10,123	4,409	1,373	31,491	6,870
Administrative & General	GES	600,664	131,065	1,182	2,102	35,039	80,449	35,039	10,912	250,277	54,600
Projects:	GES										
O&M Projects & Maintenance Reserve	GES	3,667,000	800,139	7,213	12,835	213,907	491,132	213,907	66,618	1,527,918	333,330
Total Project Costs	GES	7,883,578	1,720,197	15,510	27,593	459,870	1,055,867	459,870	143,224	3,284,831	716,617
Project Revenues											
CAISO Energy Sales	GES	1,311,400	286,147	2,583	4,590	76,494	175,636	76,494	23,828	546,422	119,206
Total Project Revenues		1,311,400	286,147	2,583	4,590	76,494	175,636	76,494	23,828	546,422	119,206
Annual Project Revenue, net		\$ 6,572,178	\$ 1,434,049	\$ 12,927	\$ 23,003	\$ 383,376	\$ 880,232	\$ 383,376	\$ 119,396	\$ 2,738,409	\$ 597,411
Estimated price per Mwh		\$ 420.19	\$ 420.19	\$ 420.19	\$ 420.19	\$ 420.19	\$ 420.19	\$ 420.19	\$ 420.19	\$ 420.19	\$ 420.19
FY 2020 Net Annual Project Costs		\$ 4,903,526	1,069,949	9,632	17,169	286,052	656,746	286,052	89,083	2,043,121	445,720
Net Project Cost Increase		\$ 1,668,652	364,100	3,295	5,833	97,323	223,486	97,323	30,312	695,287	151,691
		34.03%	34.03%	34.21%	33.97%	34.02%	34.03%	34.02%	34.03%	34.03%	34.03%
Summary of Variable and Fixed Project Costs:											
Variable Costs.		1,060,363	231,371	2,086	3,711	61,854	142,018	61,854	19,264	441,818	96,387
Fixed Costs		6,823,215	1,488,826	13,421	23,881	398,019	913,854	398,019	123,957	2,843,009	620,230
		\$ 7,883,578	\$ 1,720,197	\$ 15,507	\$ 27,593	\$ 459,873	\$ 1,055,871	\$ 459,873	\$ 143,221	\$ 3,284,827	\$ 716,617

<sup>1</sup> Generation Entitlement Share (GES) is synonymous with commonly used terms of Project Entitlement Share, Project Percentage, Project Share, Third Phase Share.

# Combustion Turbine No. Two

FY 2021

## Specific Assumptions and Rationale

### **General**

Participating members for the Combustion Turbine Project No. Two are Alameda, Lodi, Lompoc and Roseville. Combustion Turbine Project No. Two provides the Agency with a source of power for peak demand periods. These members also receive value by avoiding high bilateral markets based on the projects capacity.

### **Operations & Maintenance**

The primary operational cost for this project is natural gas. The total cost for natural gas included in the budget is based on a forecasted level of generation, which may or may not reflect the actual level of operations during the budget year. Therefore, the amount billed for natural gas could vary from the amount shown in this budget. Maintenance expenses include labor, materials and supplies necessary to the ongoing maintenance of all three units.

### **Maintenance Reserve**

Based on experience and standard utility practice, NCPA has historically maintained a maintenance reserve at an average level of approximately \$500,000. Maintenance Reserves have been established to both fund and pay for:

- Anticipated costs of estimated scheduled overhauls;
- Deductible portion of an insured loss (currently \$500,000 or more depending on the type of loss); and
- Unanticipated; but, Commission approved, cost overruns, extraordinary repairs and maintenance not budgeted in the maintenance expense accounts, and
- An additional maintenance reserve funding has been included to assist in levelizing the costs of major maintenance activities. No Maintenance Reserve funding is anticipated for FY 2021.

### **Operations & Maintenance Project Costs**

We are anticipating O&M project totaling \$30,000 and Capital project totaling \$6,500 for FY 2021.

Northern California Power Agency  
Combustion Turbine No. Two  
Annual Operating Cost Summary Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
Routine O & M Costs						
Variable	\$54,764	\$34,722	\$130,426	\$39,344	\$72,552	(\$57,874)
Fixed	462,729	591,163	477,166	259,514	487,319	10,153
Administration	48,243	22,906	49,453	18,414	49,705	252
Mandatory Costs	76,200	78,750	77,550	38,113	78,423	873
Inventory Stock	15,000	0	15,000	0	15,000	0
Routine O & M Costs without Labor	656,936	727,541	749,595	355,385	702,999	(46,596)
Labor	823,663	749,316	845,892	377,915	880,502	34,610
Total Routine O & M Costs	1,480,599	1,476,857	1,595,487	733,300	1,583,501	(11,986)
Other Plant Costs						
Fuel and Pipeline Transport Charges (va	977,410	1,604,853	1,089,118	637,361	910,006	(179,112)
GHG Allowance Costs	0	0	0	0	43,229	43,229
CA ISO Charges (variable)	2,024	236,769	53,138	74,241	40,380	(12,758)
Debt Service	5,716,708	5,716,708	5,796,421	2,898,210	4,826,162	(970,259)
Insurance	71,439	70,507	77,386	34,312	95,538	18,152
Other Costs	14,053	8,718	13,251	5,635	12,699	(552)
Generation Services Shared	59,142	45,152	53,469	31,398	55,661	2,192
Administrative & General	361,577	310,483	341,953	146,766	385,403	43,450
Total O & M Costs	8,682,952	9,470,047	9,020,223	4,561,223	7,952,579	(1,067,644)
Projects						
Operations & Maintenance	59,900	33,104	65,000	5,787	30,000	(35,000)
Capital	0	0	3,250	0	6,500	3,250
Maintenance Reserve	0	0	349,936	174,968	0	(349,936)
Total Projects Costs	59,900	33,104	418,186	180,755	36,500	(381,686)
<b>Annual Budget Cost</b>	<b>8,742,852</b>	<b>9,503,151</b>	<b>9,438,409</b>	<b>4,741,978</b>	<b>7,989,079</b>	<b>(1,449,330)</b>
Less: Third Party Revenue						
ISO Energy Sales	401,317	2,082,601	819,302	681,014	398,662	(420,640)
Interest Income	108,662	121,036	108,662	68,231	108,662	0
GHG Allowance Credits	0	0	0	0	43,229	43,229
Fuel and Pipeline Transport Credits	989,951	2,451,625	1,687,279	848,378	1,820,720	133,441
	1,499,930	4,655,262	2,615,243	1,597,623	2,371,273	(243,970)
<b>Net Annual Costs To Participants</b>	<b>\$7,242,922</b>	<b>\$4,847,889</b>	<b>\$6,823,166</b>	<b>\$3,144,355</b>	<b>\$5,617,806</b>	<b>(\$1,205,360)</b>
Total Variable Costs	\$290,008	\$1,191,056	\$549,103	\$457,622	\$309,970	(\$239,132)
Total Fixed Costs	8,452,844	8,312,095	8,889,306	4,284,356	7,679,109	(1,210,198)
	<u>\$8,742,852</u>	<u>\$9,503,151</u>	<u>\$9,438,409</u>	<u>\$4,741,978</u>	<u>\$7,989,079</u>	<u>(\$1,449,330)</u>
Net Annual Generation (MWh)	5,229	14,749	9,206	9,031	4,987	(4,219)
Net Annual Budget Costs per MWh	\$1,385	\$329	\$741	\$348	\$1,126	\$385
Variable Costs per MWh	\$55	\$81	\$60	\$51	\$62	\$3
Fixed Costs per KW Month	\$14	\$14	\$15	\$7	\$13	(\$2)

**Northern California Power Agency  
Combustion Turbine No. Two  
Projects Detail**

			FY 2020	Proposed FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030
Projects	Notes	Total	Budget										
<b>Operations &amp; Maintenance (O&amp;M)</b>													
High Energy Pipe Inspection	M	\$ 32,500	\$ 15,000		\$ -	\$ -	\$ -	\$ -	\$ 17,500	\$ -	\$ -	\$ -	\$ -
STIG 480V MCC Breaker Maintenance	M	35,000	-	-	-	35,000	-	-	-	-	-	-	-
Ammonia System Major Maintenance (15.13'	M	36,000	-	30,000	-	-	-	-	6,000	-	-	-	-
Lube Oil Hoses	D	50,000	50,000										
Total O&M Projects Funding Requirement		\$ 153,500	\$ 65,000	\$ 30,000	\$ -	\$ 35,000	\$ -	\$ -	\$ 23,500	\$ -	\$ -	\$ -	\$ -
<b>Capital</b>													
Decommissioning Costs	D	\$ 12,600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,276,925	\$ 5,639,946	\$ 2,683,129	\$ -	\$ -	\$ -
Vehicles (5% Share)	D	35,750	3,250	6,500	6,500	6,500	6,500	6,500					
Total Capital Projects Funding Requirement		\$ 12,635,750	\$ 3,250	\$ 6,500	\$ 6,500	\$ 6,500	\$ 6,500	\$ 4,283,425	\$ 5,639,946	\$ 2,683,129	\$ -	\$ -	\$ -

Notes:

- D Discretionary
- M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K

The above Capital Projects listing serves as a planning & budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies and guidelines will be applied as costs are incurred.

Northern California Power Agency  
Combustion Turbine Project No. Two (STIG)  
Maintenance Reserve  
Budget FY 2021

Maintenance Reserves are set aside for the purpose of funding unanticipated, but Commission approved, cost overruns, extraordinary repairs, and maintenance not budgeted. Fund balances and annual replenishments are affected through the annual operating budget. The maintenance Reserve is held in two components:

- \* **Annual Maintenance Contingency** for the purpose of funding annual maintenance overruns, unanticipated annual maintenance and annual maintenance costs not budgeted, and
- \* **Long-Term Maintenance Reserve** for anticipated costs of future estimated scheduled overhauls and other major projects as anticipated in the annual budget. Generally the projects are significant in scope and cost, planned for completion in future years and affect the long term viability of the project. Funding is spread over a period of years to mitigate the cash flow demands. Funds should not be considered available to augment the annual budget or replace the Annual Maintenance Contingency.

Funding/(Expenditures)	Beginning Balance											
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Authorized Contingency Balance	\$500,000											
Reserve Activity												
Excess funding	13,364											
Contingent maintenance	500,000											
Annual Funding Req. *		349,936	-	-	-	-	-	-	-	-	-	-
Decommissioning costs funding												
Balance	\$513,364	\$863,300	\$863,300	\$863,300	\$863,300	\$863,300	\$863,300	\$863,300	\$863,300	\$863,300	\$863,300	\$863,300

Northern California Power Agency  
Combustion Turbine No.2 Allocation of Project Budget  
FY 2021

	Allocated by	Total	Alameda	Lodi	Lompoc	Roseville
ALLOCATION PERCENTAGES:						
Generation Entitlement Share	GES	100.0000%	19.0000%	39.5000%	5.0000%	36.5000%
PROJECTED MWH		4,987	948	1,970	-	2,070
PROJECT COSTS:						
Routine O&M:						
Variable costs	Note A	\$ 72,552	\$ 13,785	\$ 28,658	\$ -	\$ 30,109
Fixed costs	GES	487,319	92,591	192,491	24,366	177,871
Administration	GES	49,705	9,444	19,633	2,485	18,142
Mandatory costs	GES	78,423	14,900	30,977	3,921	28,624
Inventory	GES	15,000	2,850	5,925	750	5,475
Labor	GES	880,502	167,295	347,798	44,025	321,383
Other Costs:						
Fuel and LDC costs	Note A	197,039	37,437	77,830	1,064	80,707
Fuel administration costs	GES	6,409	1,218	2,532	320	2,339
Fuel and pipeline transport	GES	706,558	134,246	279,090	35,328	257,894
GHG Allowance Costs	GES	43,229	8,214	17,075	-	17,940
CAISO charges	Note B	40,380	7,672	15,950	-	16,758
Debt service	GES	4,826,162	916,971	1,906,334	241,308	1,761,549
Insurance	GES	95,538	18,152	37,738	4,777	34,871
Other costs	GES	12,699	2,413	5,016	635	4,635
Generation Services Shared	GES	55,661	10,576	21,986	2,783	20,316
Administrative & General	GES	385,403	73,227	152,234	19,270	140,672
Projects:	GES					
O&M and Capital	GES	36,500	6,935	14,418	1,825	13,323
Maintenance Reserve	GES	-	-	-	-	-
Total Project Costs	GES	7,989,079	1,517,925	3,155,686	382,858	2,932,610
Project Revenues						
ISO Energy sales	Note B	398,662	75,746	157,471	-	165,445
Fuel and pipeline transport credit	GES	1,820,720	345,937	719,184	91,036	664,563
GHG Allowance Credits	GES	43,229	8,214	17,075	-	17,940
Interest income	GES	108,662	20,646	42,921	5,433	39,662
Total Project Revenues		2,371,273	450,542	936,653	96,469	887,609
<b>Annual Project Revenue, net</b>		<b>\$ 5,617,806</b>	<b>\$ 1,067,383</b>	<b>\$ 2,219,033</b>	<b>\$ 286,389</b>	<b>\$ 2,045,001</b>
<b>Estimated price per Mwh</b>		<b>\$ 1,126.49</b>	<b>\$ 1,126.49</b>	<b>\$ 1,126.49</b>	<b>\$ -</b>	<b>\$ 988.11</b>
FY 2019 Net Annual Project Costs						
		\$ 6,823,166	1,296,402	2,695,151	340,065	2,491,549
Net Project Cost Decrease		\$ (1,205,360)	(229,018)	(476,117)	(53,676)	(446,548)
		-17.67%	-17.67%	-17.67%	-15.78%	-17.92%
Summary of Variable and Fixed Project Costs:						
Variable Costs		\$ 353,200	\$ 67,108	\$ 139,514	\$ 1,064	\$ 145,514
Fixed Costs		7,635,879	1,450,817	3,016,172	381,794	2,787,096
Total Project Costs		\$ 7,989,079	\$ 1,517,925	\$ 3,155,686	\$ 382,858	\$ 2,932,610

<sup>1</sup> Generation Entitlement Share (GES) is synonymous with commonly used terms of Project Entitlement Share, Project Percentage, Project Share, Third Phase Share.

**Note A:** Per the transfer agreement between Lompoc and Roseville for the CT2 project, the transferor will continue to bear the fixed (capacity) cost while the transferee will bear the variable (energy) cost.

**Note B:** Allocation based on ISO rates.

# Lodi Energy Center

FY 2021

## Specific Assumptions and Rationale

### **General**

Participating members for the Lodi Energy Center (LEC) are California Department of Water Resources, City of Azusa, City of Biggs, City of Gridley, City of Healdsburg, City of Lodi, City of Lompoc, City of Santa Clara, City of Ukiah, Modesto Irrigation District, Plumas-Sierra Rural Electric Cooperative, Power and Water Resource Pooling Authority, and San Francisco Bay Area Rapid Transit District.

LEC is designed to use “Flex Plant 30” rapid startup technology, which is designed to allow earlier startup of the steam turbine by decoupling the gas turbine from the HRSG; essentially reducing startup emissions. The project is expected to have an overall annual availability of more than 89%. The CTG and associated equipment will include the use of best available control technology (BACT) to limit emissions of criteria pollutants and hazardous air pollutants.

LEC intends to provide base and peak load and ancillary power services designed to meet the electric generation demand and reliability requirements as low-cost, non-profit power to NCPA’s participating members.

### **Operations & Maintenance**

The primary operational cost for this project is natural gas. The total cost for natural gas included in the budget is based on a forecasted level of gas consumption, which may or may not reflect the actual level of operations during the budget year. Therefore, the amount billed for natural gas could vary from the amount shown in this budget. Maintenance expenses include labor, materials and supplies necessary to the ongoing maintenance of LEC.

### **Maintenance Reserve**

Maintenance Reserves have been established to both fund and pay for:

- Anticipated costs of estimated scheduled overhauls;
- Deductible portion of an insured loss (currently \$500,000 or more depending on the type of loss); and
- Unanticipated; but, Commission approved, cost overruns, extraordinary repairs and maintenance not budgeted in the maintenance expense accounts, and
- An additional maintenance reserve funding has been included to assist in levelizing the costs of major maintenance activities. The total Maintenance Reserve funding is \$1,532,082 for FY 2021.

### **Projects**

We are anticipating O&M projects totaling \$1,060,956 and Capital project totaling \$6,500 for FY 2021.

Northern California Power Agency  
Lodi Energy Center  
Annual Operating Cost Summary Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
Routine O & M Costs						
Variable	\$4,733,380	\$4,384,901	\$5,381,629	\$1,187,499	\$5,436,362	\$54,733
Fixed	3,443,662	4,310,567	2,646,090	1,700,222	2,717,065	70,975
Administration	205,529	101,790	209,845	73,243	211,377	1,532
Mandatory Costs	298,336	394,669	304,750	189,162	309,455	4,705
Routine O & M Costs without Labor	8,680,907	9,191,927	8,542,314	3,150,126	8,674,259	131,945
Labor	5,284,165	5,363,628	5,558,310	2,723,771	5,789,039	230,729
Total Routine O & M Costs	13,965,072	14,555,555	14,100,624	5,873,897	14,463,298	362,674
Other Plant Costs						
Fuel	33,092,116	45,844,088	39,513,147	18,761,187	32,955,703	(6,557,444)
GHG Allowance Costs	0	0	0	0	8,695,359	8,695,359
CA ISO Charges (variable)	550,660	739,706	883,969	508,292	780,841	(103,128)
CA ISO Energy Purchases (variable)	5,113,848	4,392,275	3,826,263	916,441	3,049,750	(776,513)
Debt Service	26,079,852	26,050,858	26,054,428	13,027,214	26,023,835	(30,593)
Insurance	625,976	614,129	674,648	306,404	898,338	223,690
Other Costs	124,926	201,128	128,792	70,636	106,546	(22,246)
Generation Services Shared	368,963	325,938	339,783	199,715	353,712	13,929
Administrative & General	2,182,080	2,075,401	2,105,792	906,606	2,317,930	212,138
Power Management Allocated Costs	1,446,134	1,322,317	1,439,156	719,578	1,523,860	84,704
Total O & M Costs	83,549,627	96,121,395	89,066,602	41,289,970	91,169,172	2,102,570
Projects						
Operations & Maintenance	52,000	41,020	917,433	8,324	1,060,956	143,523
Capital	100,000	6,950	2,919,108	592,458	6,500	(2,912,608)
Maintenance Reserve	1,461,107	1,461,107	1,496,174	748,087	1,838,332	342,158
Total Projects	1,613,107	1,509,077	5,332,715	1,348,869	2,905,788	(2,426,927)
<b>Annual Budget Cost</b>	<b>85,162,734</b>	<b>97,630,472</b>	<b>94,399,317</b>	<b>42,638,839</b>	<b>94,074,960</b>	<b>(324,357)</b>
Less: Third Party Revenue						
ISO Energy Sales	52,414,938	76,972,681	72,602,551	31,770,378	55,590,251	(17,012,300)
Ancillary Services Sales	1,028,631	1,631,418	1,432,533	1,033,934	1,711,986	279,453
GHG Allowance Credits	0	0	0	0	8,463,375	8,463,375
Interest Income - Operations	94,945	276,884	94,945	187,534	94,945	0
Interest Income (NCPA)	242,355	308,449	242,355	133,693	242,355	0
Interest Income (CDWR)	48,545	85,791	48,545	30,077	48,545	0
Other Income	0	5,797	0	530	0	0
	53,829,414	79,281,020	74,420,929	33,156,146	66,151,457	(8,269,472)
<b>Net Annual Budget Cost To Participants</b>	<b>\$31,333,320</b>	<b>\$18,349,452</b>	<b>\$19,978,388</b>	<b>\$9,482,693</b>	<b>\$27,923,503</b>	<b>\$7,945,115</b>
Total Variable Costs	\$43,490,004	\$55,754,425	\$49,605,008	\$21,373,419	\$50,918,015	\$1,313,007
Total Fixed Costs	41,672,730	42,269,502	44,794,309	21,265,420	43,156,945	(1,637,364)
	<b>\$85,162,734</b>	<b>\$98,023,927</b>	<b>\$94,399,317</b>	<b>\$42,638,839</b>	<b>\$94,074,960</b>	<b>(\$324,357)</b>
Net Annual Generation (MWh)	1,304,122	1,382,308	1,599,464	764,224	1,316,988	(282,476)
Net Annual Budget Costs per MWh	\$24	\$13	\$12	\$12	\$21	\$9
Variable Costs per MWh	\$33	\$40	\$31	\$28	\$39	\$8
Fixed Costs per KW Month	\$12	\$13	\$13	\$6	\$13	(\$0)

**Northern California Power Agency  
Lodi Energy Center  
Projects Detail**

Projects	Notes	Total	FY 2020 Budget	Proposed FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030
<b>Operations &amp; Maintenance (O&amp;M)</b>													
Gas Turbine Insulation	M	\$ 275,000	\$ -	\$ -	\$ 275,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Service Water Piping	M	250,000	-	-	50,000	-	-	200,000	-	-	-	-	-
Asphalt & Paving Maintenance	M	60,000	-	<b>60,000</b>	-	-	-	-	-	-	-	-	-
Water Plant EDI/RO	M	56,000	-	<b>56,000</b>	-	-	-	-	-	-	-	-	-
HVAC	M	40,000	-	-	40,000	-	-	-	-	-	-	-	-
Annual Maintenance Outage	M	11,750,294	917,433	<b>944,956</b>	973,305	1,002,504	1,032,579	1,063,556	1,095,463	1,128,327	1,162,177	1,197,042	1,232,953
Total O&M Projects Funding Requirement		<b>\$ 12,431,294</b>	<b>\$ 917,433</b>	<b>\$ 1,060,956</b>	<b>\$ 1,338,305</b>	<b>\$ 1,002,504</b>	<b>\$ 1,032,579</b>	<b>\$ 1,263,556</b>	<b>\$ 1,095,463</b>	<b>\$ 1,128,327</b>	<b>\$ 1,162,177</b>	<b>\$ 1,197,042</b>	<b>\$ 1,232,953</b>
<b>Capital</b>													
Platforms (20)	D	\$ 450,000	\$ -	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DCS Software Upgrades	D	450,000	-	-	-	-	450,000	-	-	-	-	-	-
DCS Hardware Updates	D	250,000	-	-	-	250,000	-	-	-	-	-	-	-
Clarifier Tank Refurbishment	M	400,000	-	-	-	-	-	-	400,000	-	-	-	-
Cooling Tower OH	D	500,000	-	-	-	-	-	-	-	-	500,000	-	-
Air Filter Puffer System	D	500,000	-	-	-	500,000	-	-	-	-	-	-	-
BOP PLC Upgrades	D	125,000	-	-	125,000	-	-	-	-	-	-	-	-
GSU Transformer	D	2,915,858	2,915,858	-	-	-	-	-	-	-	-	-	-
Vehicles (5% Share)	D	35,750	3,250	<b>6,500</b>	6,500	6,500	6,500	6,500	-	-	-	-	-
Unidentified Capital Project	D	2,000,000	-	-	500,000	-	-	500,000	-	500,000	500,000	-	-
Total Capital Projects Funding Requirement		<b>\$ 7,626,608</b>	<b>\$ 2,919,108</b>	<b>\$ 6,500</b>	<b>\$ 1,081,500</b>	<b>\$ 756,500</b>	<b>\$ 456,500</b>	<b>\$ 506,500</b>	<b>\$ 400,000</b>	<b>\$ 500,000</b>	<b>\$ 1,000,000</b>	<b>\$ -</b>	<b>\$ -</b>

Notes:

- D Discretionary
- M Mandatory

**Northern California Power Agency  
Maintenance Reserves - Lodi Energy Center  
Budget FY 2021**

**Maintenance Reserves are set aside for the purpose of funding unanticipated, but Commission approved, cost overruns, extraordinary repairs, and maintenance not budgeted. Fund balances and annual replenishments are affected through the annual operating budget. The maintenance Reserve is held in two components:**

- \* **Annual Maintenance Contingency** for the purpose of funding annual maintenance overruns, unanticipated annual maintenance and annual maintenance costs not budgeted, and
- \* **Long-Term Maintenance Reserve** for anticipated costs of future estimated scheduled overhauls and other major projects as anticipated in the annual budget. Generally the projects are significant in scope and cost, planned for completion in future years and affect the long term viability of the project. Funding is spread over a period of years to mitigate the cash flow demands. Funds should not be considered available to augment the annual budget or replace the Annual Maintenance Contingency.

In the FY2013 operations budget, funding was approved for a maintenance reserve to specifically provide cash for the first five year overhaul. The reserve is to cover those costs not covered under the Siemens LTSA (FY2018). Based on actual operating experience, the timing and requirements of the overhaul have changed and are reflected below.

Funding/(Expenditures)	Fiscal Year Activity										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>LEC:</b>											
Beginning Reserve Balance	\$ 3,230,138	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Projected Reserve Expenditures -</b>											
Combustion Turbine (Overhaul)	(1,225,000)	(100,000)	(1,759,760)	-	-	-	(90,000)	-	-	(50,000)	(2,843,188)
Steam Turbine	-	-	(740,000)	-	-	(20,000)	-	-	-	-	(125,000)
Generators	-	-	-	-	(70,000)	-	-	-	-	-	-
Plant Projects	(640,000)	(2,320,000)	(950,000)	(1,255,000)	(1,675,000)	(440,000)	(500,000)	(1,610,000)	(671,371)	(620,000)	(1,505,031)
HRSG	(90,000)	(300,000)	(215,000)	(450,000)	(40,000)	(1,200,000)	(540,000)	(175,000)	(40,000)	(300,000)	(40,000)
<b>Total Projected Expenditures</b>	<b>(1,955,000)</b>	<b>(2,720,000)</b>	<b>(3,664,760)</b>	<b>(1,705,000)</b>	<b>(1,785,000)</b>	<b>(1,660,000)</b>	<b>(1,130,000)</b>	<b>(1,785,000)</b>	<b>(711,371)</b>	<b>(970,000)</b>	<b>(4,513,219)</b>
<b>Projected Reserve Funding -</b>											
Maintenance Contingency	-	-	-	-	-	-	-	-	-	-	-
Unit Overhaul	890,000	1,598,084	1,629,088	1,660,835	1,693,346	1,733,986	1,775,602	1,818,216	1,861,853	1,906,538	1,952,295
Plant Projects	606,174	240,248	246,014	251,919	257,965	264,156	270,496	276,988	283,635	290,442	297,413
<b>Total Projected Funding</b>	<b>1,496,174</b>	<b>1,838,332</b>	<b>1,875,102</b>	<b>1,912,754</b>	<b>1,951,310</b>	<b>1,998,142</b>	<b>2,046,097</b>	<b>2,095,204</b>	<b>2,145,488</b>	<b>2,196,980</b>	<b>2,249,708</b>
<b>Cumulative Balance</b>	<b>\$ 2,771,312</b>	<b>\$ 1,889,644</b>	<b>\$ 99,986</b>	<b>\$ 307,740</b>	<b>\$ 474,051</b>	<b>\$ 812,193</b>	<b>\$ 1,728,290</b>	<b>\$ 2,038,493</b>	<b>\$ 3,472,611</b>	<b>\$ 4,699,591</b>	<b>\$ 2,436,080</b>

LODI ENERGY CENTER  
Allocation of Project Budget  
FY 2021

ALLOCATION PERCENTAGES:

Generation Entitlement Share <sup>(1)</sup>	GES	100.0000%	2.7857%	6.6000%	0.2679%	33.5000%	1.9643%	1.6428%	9.5000%	2.0357%	10.7143%	0.7857%	2.6679%	25.7500%	1.7857%
Indenture Cost Share A	ICS A	100.0000%	4.9936%	11.8310%	0.4802%	0.0000%	3.5212%	2.9448%	17.0295%	3.6491%	0.0000%	1.4084%	4.7824%	46.1588%	3.2010%
Indenture Cost Share B	ICS B	100.0000%	0.000%	0.000%	0.000%	100.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
PROJECTED MWH		1,316,988	36,687	86,921	3,528	441,191	25,870	21,635	125,114	26,810	141,106	10,348	35,136	339,124	23,517
PROJECT COSTS:															
Fuel Cost	GES	\$ 32,955,703	\$ 918,047	\$ 2,175,076	\$ 88,288	\$ 11,040,161	\$ 647,349	\$ 541,397	\$ 3,130,792	\$ 670,879	\$ 3,530,973	\$ 258,933	\$ 879,225	\$ 8,486,093	\$ 588,490
GHG Allowance Costs	GES	\$ 8,695,359	\$ 242,227	\$ 573,894	\$ 23,295	\$ 2,912,945	\$ 170,803	\$ 142,847	\$ 826,059	\$ 177,011	\$ 931,647	\$ 68,319	\$ 231,983	\$ 2,239,055	\$ 155,273
Labor	GES	\$ 5,789,039	\$ 161,265	\$ 382,077	\$ 15,509	\$ 1,939,328	\$ 113,714	\$ 95,102	\$ 549,959	\$ 117,847	\$ 620,255	\$ 45,484	\$ 154,446	\$ 1,490,678	\$ 103,375
Variable O&M	GES	\$ 5,436,362	\$ 151,441	\$ 358,800	\$ 14,564	\$ 1,821,181	\$ 106,786	\$ 89,309	\$ 516,454	\$ 110,668	\$ 582,468	\$ 42,713	\$ 145,037	\$ 1,399,863	\$ 97,077
Fixed O&M	GES	\$ 2,717,065	\$ 75,689	\$ 179,326	\$ 7,279	\$ 910,217	\$ 53,371	\$ 44,636	\$ 258,121	\$ 55,311	\$ 291,114	\$ 21,348	\$ 72,489	\$ 699,644	\$ 48,519
O&M Administration	GES	\$ 211,377	\$ 5,888	\$ 13,951	\$ 566	\$ 70,811	\$ 4,152	\$ 3,473	\$ 20,081	\$ 4,303	\$ 22,648	\$ 1,661	\$ 5,639	\$ 54,430	\$ 3,775
Mandatory Costs	GES	\$ 309,455	\$ 8,620	\$ 20,424	\$ 829	\$ 103,667	\$ 6,079	\$ 5,084	\$ 29,398	\$ 6,300	\$ 33,156	\$ 2,431	\$ 8,256	\$ 79,685	\$ 5,526
Inventory Stock	GES	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
O&M and Capital Projects Costs	GES	\$ 1,067,456	\$ 29,736	\$ 70,452	\$ 2,860	\$ 357,598	\$ 20,968	\$ 17,536	\$ 101,408	\$ 21,730	\$ 114,370	\$ 8,387	\$ 28,479	\$ 274,870	\$ 19,062
Maintenance Reserve	GES	\$ 1,838,332	\$ 51,210	\$ 121,330	\$ 4,925	\$ 615,841	\$ 36,110	\$ 30,200	\$ 174,642	\$ 37,423	\$ 196,964	\$ 14,444	\$ 49,045	\$ 473,370	\$ 32,827
Insurance	GES	\$ 898,338	\$ 25,025	\$ 59,290	\$ 2,407	\$ 300,943	\$ 17,646	\$ 14,758	\$ 85,342	\$ 18,287	\$ 96,251	\$ 7,058	\$ 23,967	\$ 231,322	\$ 16,042
Other Costs	GES	\$ 40,000	\$ 1,114	\$ 2,640	\$ 107	\$ 13,400	\$ 786	\$ 657	\$ 3,800	\$ 814	\$ 4,286	\$ 314	\$ 1,067	\$ 10,300	\$ 714
Generation Services Shared	GES	\$ 353,712	\$ 9,853	\$ 23,345	\$ 948	\$ 118,494	\$ 6,948	\$ 5,811	\$ 33,603	\$ 7,201	\$ 37,898	\$ 2,779	\$ 9,437	\$ 91,081	\$ 6,316
Transmission (CAISO)		\$ 780,841	\$ 21,752	\$ 51,536	\$ 2,092	\$ 261,582	\$ 15,338	\$ 12,828	\$ 74,180	\$ 15,896	\$ 83,662	\$ 6,135	\$ 20,832	\$ 201,067	\$ 13,943
Energy Purchases (CAISO)		\$ 3,049,750	\$ 84,957	\$ 201,284	\$ 8,170	\$ 1,021,666	\$ 59,906	\$ 50,101	\$ 289,726	\$ 62,084	\$ 326,759	\$ 23,962	\$ 81,364	\$ 785,311	\$ 54,459
Debt Service Cost:															
Indenture Group A Cost	ICS A	\$ 20,912,486	\$ 1,044,286	\$ 2,474,156	\$ 100,422	\$ -	\$ 736,370	\$ 615,831	\$ 3,561,292	\$ 763,118	\$ -	\$ 294,531	\$ 1,000,119	\$ 9,652,953	\$ 669,409
BAB's Subsidy (Group A)	ICS A	\$ (4,252,914)	\$ (212,374)	\$ (503,162)	\$ (20,422)	\$ -	\$ (149,754)	\$ (125,240)	\$ (724,250)	\$ (155,193)	\$ -	\$ (59,898)	\$ (203,391)	\$ (1,963,094)	\$ (136,136)
Debt and Trustee Fees (Group A)	ICS A	\$ 43,576	\$ 2,176	\$ 5,155	\$ 209	\$ -	\$ 1,534	\$ 1,283	\$ 7,421	\$ 1,590	\$ -	\$ 614	\$ 2,084	\$ 20,114	\$ 1,395
Indenture Group B Cost	ICS B	\$ 11,320,079	\$ -	\$ -	\$ -	\$ 11,320,079	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
BAB's Subsidy (Group B)	ICS B	\$ (1,955,816)	\$ -	\$ -	\$ -	\$ (1,955,816)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt and Trustee Fees (Group B)	ICS B	\$ 22,970	\$ -	\$ -	\$ -	\$ 22,970	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative & General	GES	\$ 2,317,930	\$ 64,571	\$ 152,983	\$ 6,210	\$ 776,507	\$ 45,531	\$ 38,079	\$ 220,203	\$ 47,186	\$ 248,350	\$ 18,212	\$ 61,840	\$ 596,867	\$ 41,391
Power Management Allocated Costs	GES	\$ 1,523,860	\$ 42,450	\$ 100,575	\$ 4,082	\$ 510,493	\$ 29,933	\$ 25,034	\$ 144,767	\$ 31,021	\$ 163,271	\$ 11,973	\$ 40,655	\$ 392,394	\$ 27,212
Total Project Costs		\$ 94,074,960	\$ 2,727,935	\$ 6,463,132	\$ 262,339	\$ 32,162,067	\$ 1,923,572	\$ 1,608,726	\$ 9,302,998	\$ 1,993,477	\$ 7,284,072	\$ 769,402	\$ 2,612,572	\$ 25,216,001	\$ 1,748,668
Estimated price per MWh		\$ 71.43	\$ 74.36	\$ 74.36	\$ 74.35	\$ 72.90	\$ 74.36	\$ 74.36	\$ 74.36	\$ 74.36	\$ 51.62	\$ 74.36	\$ 74.36	\$ 74.36	\$ 74.36
Third Party Revenue															
ISO Energy Sales	GES	\$ 55,590,251	\$ 1,548,578	\$ 3,668,957	\$ 148,926	\$ 18,622,734	\$ 1,091,959	\$ 913,237	\$ 5,281,074	\$ 1,131,651	\$ 5,956,106	\$ 436,773	\$ 1,483,092	\$ 14,314,490	\$ 992,675
Ancillary Services Sales	GES	\$ 1,711,986	\$ 47,691	\$ 112,991	\$ 4,586	\$ 573,515	\$ 33,629	\$ 28,125	\$ 162,639	\$ 34,851	\$ 183,427	\$ 13,451	\$ 45,674	\$ 440,836	\$ 30,571
GHG Allowance Credits	GES	\$ 8,463,376	\$ 242,227	\$ 573,894	\$ 23,295	\$ 2,912,945	\$ 170,803	\$ 142,847	\$ 826,059	\$ 177,011	\$ 931,647	\$ 68,319	\$ -	\$ 2,239,055	\$ 155,273
Interest & Other Income	GES	\$ 94,944	\$ 2,645	\$ 6,266	\$ 254	\$ 31,806	\$ 1,865	\$ 1,560	\$ 9,020	\$ 1,933	\$ 10,173	\$ 746	\$ 2,533	\$ 24,448	\$ 1,695
Interest Income (Group A)	ICS A	\$ 242,355	\$ 12,102	\$ 28,673	\$ 1,164	\$ -	\$ 8,534	\$ 7,137	\$ 41,272	\$ 8,844	\$ -	\$ 3,413	\$ 11,590	\$ 111,868	\$ 7,758
Interest Income (Group B)	ICS B	\$ 48,545	\$ -	\$ -	\$ -	\$ 48,545	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		\$ 66,151,457	\$ 1,853,242	\$ 4,390,781	\$ 178,226	\$ 22,189,546	\$ 1,306,790	\$ 1,092,905	\$ 6,320,063	\$ 1,354,290	\$ 7,081,353	\$ 522,702	\$ 1,542,890	\$ 17,130,697	\$ 1,187,972
Annual Project Costs, net		\$ 27,923,503	\$ 874,693	\$ 2,072,351	\$ 84,114	\$ 9,972,521	\$ 616,783	\$ 515,821	\$ 2,982,934	\$ 639,187	\$ 202,719	\$ 246,700	\$ 1,069,682	\$ 8,085,304	\$ 560,696
Estimated price per Mwh, net		\$ 21.20	\$ 23.84	\$ 23.84	\$ 23.84	\$ 22.60	\$ 23.84	\$ 23.84	\$ 23.84	\$ 23.84	\$ 1.44	\$ 23.84	\$ 30.44	\$ 23.84	\$ 23.84
JPA Assessment (per PMOA)		\$ 88,606	\$ 4,970	\$ -	\$ -	\$ 59,763	\$ -	\$ -	\$ -	\$ -	\$ 19,114	\$ -	\$ 4,759	\$ -	\$ -

Northern California Power Agency  
Shared Facilities - Gas Plants  
Annual Operating Cost Summary Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
<b>Shared Costs</b>						
Fixed O&M	\$261,500	\$247,324	\$279,525	\$109,487	\$294,276	\$14,751
Administration	247,184	124,244	253,350	101,704	254,750	1,400
Mandatory	40,000	54,213	40,000	29,573	40,000	0
<b>Shared Costs without Labor</b>	<b>\$548,684</b>	<b>\$425,781</b>	<b>\$572,875</b>	<b>\$240,764</b>	<b>\$589,026</b>	<b>\$16,151</b>
<b>Summary of Costs by Subprograms per PMOA Schedule 4.00</b>						
Anhydrous Ammonia System (Alloc 1)	9,000	4,589	10,000	0	10,000	0
Administration/Warehouse Building (Alloc 2)	448,184	331,760	471,875	212,894	476,522	4,647
230 Kv Switchyard Common Equip (Alloc 4)	45,000	29,172	45,000	10,210	45,000	0
Tooling and Special Equipment (Alloc 5)	7,500	16,769	7,000	6,054	16,504	9,504
Cooling Tower/Closed Cooling Water/Injection Wells System (Alloc 6)						0
Vehicle Usage (Alloc 7)	39,000	43,489	39,000	11,606	41,000	2,000
	<b>\$548,684</b>	<b>\$425,779</b>	<b>\$572,875</b>	<b>\$240,764</b>	<b>\$589,026</b>	<b>\$16,151</b>
<b>Liquidation to Plants</b>						
<b>CT 1</b>						
O&M & Inventory	\$55,320	\$59,549	\$57,363	\$20,966	\$60,693	\$3,330
Administration	29,662	14,909	30,402	12,205	30,570	168
Mandatory	4,800	6,506	4,800	3,549	4,800	0
	<b>89,782</b>	<b>80,964</b>	<b>92,565</b>	<b>36,720</b>	<b>96,063</b>	<b>3,498</b>
<b>CT 2</b>						
O&M & Inventory	40,450	37,896	43,666	17,906	46,061	2,395
Administration	44,493	22,364	45,603	18,307	45,855	252
Mandatory	7,200	9,758	7,200	5,323	7,200	0
	<b>92,143</b>	<b>70,018</b>	<b>96,469</b>	<b>41,536</b>	<b>99,116</b>	<b>2,647</b>
<b>LEC</b>						
O&M & Inventory	165,730	149,879	178,496	70,614	187,522	9,026
Administration	173,029	86,971	177,345	71,193	178,325	980
Mandatory	28,000	37,949	28,000	20,701	28,000	0
	<b>366,759</b>	<b>274,799</b>	<b>383,841</b>	<b>162,508</b>	<b>393,847</b>	<b>10,006</b>
	<b>\$548,684</b>	<b>\$425,781</b>	<b>\$572,875</b>	<b>\$240,764</b>	<b>\$589,026</b>	<b>\$16,151</b>

Northern California Power Agency  
Shared Facilities - Gas Plants  
Annual Operating Cost Summary Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
<b>Fixed O&amp;M Costs</b>						
Services -						
Legal Services (Alloc 2)	10,000	0	11,000	0	10,000	(1,000)
Tools/Shop/Warehouse (Alloc 2)	3,000	7,223	5,000	2,425	7,000	2,000
Buildings and Grounds (Alloc 2)	24,000	4,657	22,000	9,226	22,000	0
Ammonia System (Alloc 1)	9,000	4,589	9,000	0	9,000	0
Switchyard (Alloc 4)	12,000	8,158	12,000	10,109	12,000	0
Overall Facility Expense (Alloc 2)	0	7,980	1,025	0	0	(1,025)
Network/Communication (Alloc 5)	0	16,724	0	6,000	9,504	9,504
Balance of Plant (Alloc 2)	5,000	0	12,000	0	12,000	0
Electric/Control (Alloc 2)	0	0	3,000	0	3,000	0
Vehicle (Alloc 7)	12,000	19,812	12,000	3,066	14,000	2,000
	75,000	69,143	87,025	30,826	98,504	11,479
Materials & Supplies -						
Buildings and Grounds (Alloc 2)	20,000	1,583	20,000	3,612	15,000	(5,000)
Overall Facility Expense (Alloc 2)	10,000	10,255	14,500	12,825	13,000	(1,500)
Ammonia System (Alloc 1)	0	0	1,000	0	1,000	0
Switchyard (Alloc 4)	5,000	5,829	5,000	101	5,000	0
Network/Communication (Alloc 5)	7,500	45	7,000	54	7,000	0
Balance of Plant (Alloc 2)	0	0	5,000	4,073	5,000	0
Tools/Shop/Warehouse Equipment (Alloc 2)	35,000	59,110	35,000	22,469	40,000	5,000
Electric/Control (Alloc 2)	0	16,882	2,000	7,905	5,480	3,480
Vehicle (Alloc 7)	27,000	23,677	27,000	8,540	27,000	0
	104,500	117,381	116,500	59,579	118,480	1,980
Other Costs -						
Telephone & Dedicated Comm. (Alloc 2)	3,000	0	3,000	0	3,000	0
Maintenance Connection (Alloc 4)	28,000	15,185	28,000	0	28,000	0
Aux Power and Utilities (Alloc 2)	35,000	41,518	35,000	19,082	35,000	0
Equipment Rentals (Alloc 2)	16,000	4,096	10,000	0	11,292	1,292
	82,000	60,800	76,000	19,082	77,292	1,292
	\$261,500	\$247,324	\$279,525	\$109,487	\$294,276	\$14,751

Northern California Power Agency  
Shared Facilities - Gas Plants  
Annual Operating Cost Summary Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
<b>Administration Expense</b>						
Services -						
Office Equipment (Alloc 2)	5,417	916	5,300	0	5,300	0
General Office (Alloc 2)	2,555	931	2,400	503	2,400	0
Janitorial Services (Alloc 2)	10,220	11,598	11,000	10,858	11,000	0
	18,192	13,445	18,700	11,361	18,700	0
Other Costs -						
Travel (Alloc 2)	25,000	11,385	25,000	8,182	25,000	0
Staff Development (Alloc 2)	52,904	9,706	53,000	10,932	53,000	0
Meals & Per Diems (Alloc 2)	511	1,062	550	1,006	550	0
Safety Incentive Program (Alloc 2)	1,500	0	1,500	0	1,500	0
Community Relations (Alloc 2)	1,022	0	1,000	0	1,000	0
Janitorial Supplies & Misc Expenses (Alloc 2)	35,000	17,977	35,000	1,036	35,000	0
Office Equipment (Alloc 2)	55,000	37,163	55,000	39,157	55,000	0
General Office Supplies (Alloc 2)	40,000	20,737	40,000	9,597	40,000	0
Computer (software,hardware,network,...) (Alloc 2)	10,000	0	10,000	0	10,000	0
Awards/Functions/Meetings (Alloc 2)	5,500	8,312	11,000	3,022	11,000	0
Publications (Alloc 2)	2,555	4,457	2,600	17,411	4,000	1,400
	228,992	110,799	234,650	90,343	236,050	1,400
	\$247,184	\$124,244	\$253,350	\$101,704	\$254,750	\$1,400
<b>Mandatory Costs</b>						
Services -						
Safety Services (Alloc 2)	0	22,489	0	9,716	0	0
	0	22,489	0	9,716	0	0
Other Costs -						
Permit Fees (Alloc 2)	0	0	0	33	0	0
Environmental Supplies (Alloc 2)	0	457	0	3,722	0	0
Safety Supplies & Equipment (Alloc 2)	40,000	31,266	40,000	16,102	40,000	0
	40,000	31,724	40,000	19,857	40,000	0
	40,000	54,213	40,000	29,573	40,000	0

Northern California Power Agency  
Generation Services - Shared  
Comparative Annual Budget Report

	FY 2019 Actual	FY 2019 Budget	FY 2020 Budget	FY 2020 Actual Through December 31	Proposed FY 2021 Budget	Increase/ (Decrease)
Routine O&M Costs						
Operations	\$ 84,979	\$ 90,000	\$ 76,401	\$ 138,635	\$ 76,401	\$ -
Administration	60,595	54,000	50,500	19,936	50,937	437
Routine O&M w/o Labor	145,574	144,000	126,901	158,571	127,338	437
Labor	1,146,388	1,323,528	1,227,032	647,729	1,307,647	80,615
Total Routine O&M Costs	1,291,962	1,467,528	1,353,933	806,300	1,434,985	81,052
Occupancy Cost	61,635	63,178	63,249	26,542	61,230	(2,019)
<b>Annual Budget Cost</b>	<b>\$ 1,353,597</b>	<b>\$ 1,530,706</b>	<b>1,417,182</b>	<b>832,842</b>	<b>1,496,215</b>	<b>79,033</b>
Less Funding						
Generation Services Shared - Liquidation	(1,353,597)	(1,530,706)	(1,417,182)	(832,842)	(1,496,215)	(79,033)
	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

	Person Years FY 21	Allocation FY 21 %							
Allocated									
Hydro	19.41	22.1%	\$ 349,007	\$ 487,532	\$ 313,621	\$ 184,307	\$ 330,393	\$ 16,772	
CT 1	4.44	5.1%	40,180	80,734	72,601	42,665	75,577	2,976	
CT 2	3.27	3.7%	58,987	75,786	53,469	31,423	55,661	2,192	
LEC	20.78	23.6%	451,379	510,711	339,784	199,682	353,713	13,929	
Geo	40.00	45.5%	823,041	994,857	637,707	374,764	680,871	43,164	
	87.90	100.0%	\$ 1,722,594	\$ 2,149,621	\$ 1,417,182	\$ 832,842	\$ 1,496,215	\$ 79,033	

Allocation based on FTE person years.

NORTHERN CALIFORNIA POWER AGENCY  
Member Resources - Energy  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
Member Resources Contracts						
Alameda	\$11,437,776	\$6,696,715	\$11,058,230	\$3,054,050	\$10,773,788	(\$284,442)
BART	0	0	0	0	1,017,917	1,017,917
Lodi	1,873,941	919,305	1,936,423	505,888	1,926,744	(9,679)
Palo Alto	39,862,652	44,320,520	40,444,140	22,732,819	39,371,180	(1,072,960)
Plumas-Sierra	243,432	243,542	0	0	444,698	444,698
Port of Oakland	2,648,564	3,088,869	2,479,726	1,718,267	2,834,749	355,023
Santa Clara	0	260,879	0	0	0	0
Ukiah	0	0	0	0	0	0
Pioneer	0	0	0	0	0	0
	56,066,365	55,529,830	55,918,519	28,011,024	56,369,076	450,557
ISO Energy Purchases	7,803,402	7,501,086	0	4,502,187	3,403,629	3,403,629
ISO GMC Charges	579,047	265,715	310,448	195,161	283,147	(27,301)
<b>Annual Budget Cost</b>	<b>64,448,814</b>	<b>63,296,631</b>	<b>56,228,967</b>	<b>32,708,372</b>	<b>60,055,852</b>	<b>3,826,885</b>
Less: Third Party Revenue						
Energy Sales to Third Parties	9,040,901	9,762,183	1,181,273	4,621,929	7,556,725	6,375,452
ISO Energy Sales	28,186,777	35,648,535	29,156,411	56,256,240	26,421,509	(2,734,902)
Member Owned Generation (net)	0	0	0	0	69,679,260	69,679,260
Interest and Other Income	0	0	0	334,382	0	0
	37,227,678	45,410,718	30,337,684	61,212,551	103,657,494	73,319,810
<b>Net Annual Budget Cost to Participants</b>	<b>\$27,221,136</b>	<b>\$17,885,913</b>	<b>\$25,891,283</b>	<b>(\$28,504,179)</b>	<b>(\$43,601,642)</b>	<b>(\$69,492,925)</b>

**Note:** Effective in FY 2019 Member Resources budget, CAISO GMC Charges and ISO Energy Sales related to Member Resources are included above.

NORTHERN CALIFORNIA POWER AGENCY  
Member Resources - Natural Gas  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
Member Resources - Natural Gas						
Contracts						
Biggs	\$31,202	\$64,334	\$51,088	\$41,581	\$52,783	\$1,695
Gridley	137,483	154,462	235,355	74,041	140,429	(94,926)
Healdsburg	106,272	347,375	285,612	241,587	199,713	(85,899)
Lodi	1,891,935	2,521,845	2,089,082	1,393,738	1,429,490	(659,592)
Lompoc	564,155	679,957	527,462	444,682	423,676	(103,786)
Ukiah	367,231	511,759	352,299	345,576	196,083	(156,216)
<b>Annual Budget Cost</b>	<b>3,098,278</b>	<b>4,279,732</b>	<b>3,540,898</b>	<b>2,541,205</b>	<b>2,442,174</b>	<b>(1,098,724)</b>
Gas Transfer Credits						
Biggs	22,663	77,635	47,719	34,560	50,768	3,049
Gridley	101,783	167,978	222,144	124,059	129,736	(92,408)
Healdsburg	79,112	417,161	254,979	219,331	195,472	(59,507)
Lodi	1,469,097	2,675,669	2,091,125	1,174,149	1,342,190	(748,935)
Lompoc	420,558	680,954	510,382	381,248	409,420	(100,962)
Ukiah	284,204	537,804	332,906	258,458	188,694	(144,212)
	2,377,417	4,557,201	3,459,255	2,191,805	2,316,280	(1,142,975)
Interest Income	7,391	8,593	7,391	6,547	7,391	0
Other Income	0	0	0	0	0	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$713,470</b>	<b>(\$286,062)</b>	<b>\$74,252</b>	<b>\$342,853</b>	<b>\$118,503</b>	<b>\$44,251</b>

NORTHERN CALIFORNIA POWER AGENCY  
Western Resources  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
Western Resources						
NCPA Power Pool						
Alameda	\$917,328	\$848,950	\$684,036	\$0	\$845,350	\$161,314
Biggs	224,661	191,646	167,532	0	207,038	39,506
Gridley	502,824	429,127	374,946	0	463,372	88,426
Healdsburg	191,238	177,101	142,599	0	176,230	33,631
Lodi	432,957	455,172	322,851	0	398,987	76,136
Lompoc	245,358	237,173	182,958	0	226,107	43,149
Palo Alto	9,361,092	8,019,512	6,980,424	0	8,626,587	1,646,163
Plumas-Sierra	1,759,356	1,513,841	1,311,921	0	1,621,312	309,391
Ukiah	263,019	245,504	196,131	0	242,381	46,250
Port of Oakland	460,029	396,006	343,041	0	423,937	80,896
Base Resource	0	0	0	6,755,233	0	0
	14,357,862	12,514,032	10,706,439	6,755,233	13,231,301	2,524,862
Restoration Fund	6,779,488	4,404,538	4,884,802	2,533,730	6,234,994	1,350,192
Western O&M	9,956,265	7,659,588	7,516,037	1,636,970	10,171,776	2,655,739
CAISO GMC Charges	256,003	418,473	217,841	120,015	231,565	13,724
Annual Budget Cost	<b>31,349,618</b>	<b>24,996,631</b>	<b>23,325,119</b>	<b>11,045,948</b>	<b>29,869,636</b>	<b>6,544,517</b>
Less: Third Party Revenue						
ISO Energy Sales	23,182,775	24,334,767	18,304,471	13,001,017	17,480,649	(823,822)
Displacement Revenue	0	146,562		0	0	0
Western O&M Revenue Credits	9,956,265	7,658,199	7,516,037	2,446,131	10,171,776	2,655,739
Interest Income	21,862	82,489	21,862	39,833	21,862	0
	33,160,902	32,222,017	25,842,370	15,486,981	27,674,287	1,831,917
Net Annual Budget Cost	<b>(\$1,811,284)</b>	<b>(\$7,225,386)</b>	<b>(\$2,517,251)</b>	<b>(\$4,441,033)</b>	<b>\$2,195,349</b>	<b>\$4,712,600</b>

**Note:** Effective in FY 2018 Western Resource budget, CAISO GMC Charges and ISO Energy Sales related to WAPA energy are included above.

NORTHERN CALIFORNIA POWER AGENCY  
Market Power Purchases  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
Market Power Purchases & NCPA Contracts						
Alameda	\$176,370	(\$46,121)	\$176,890	\$0	\$173,999	(\$2,891)
Biggs	0	185,133	23,140	0	31,596	8,456
Gridley	283,753	420,211	405,956	0	151,592	(254,364)
Healdsburg	0	135,500	0	0	0	0
Lodi	1,572,131	4,625,460	1,063,374	0	2,919,814	1,856,440
Lompoc	656,748	1,017,087	459,568	0	537,617	78,049
Palo Alto	0	989,101	0	0	0	0
Plumas-Sierra	0	216,649	0	0	0	0
Port of Oakland	0	115,975	0	0	0	0
Ukiah	0	(227,346)	56,875	0	11,464	(45,411)
BART	12,630,411	15,622,211	12,782,687	0	23,398,713	10,616,026
Santa Clara	0	0	0	0	0	0
Pioneer CE	0	34,000	0	0	0	0
East Bay CE	0	2,175	0	0	0	0
Market Power Purchases	0	0	0	11,558,115	0	0
	15,319,413	23,090,035	14,968,490	11,558,115	27,224,795	12,256,305
ISO Energy Purchases	0	909,522	0	280,018	23,506	23,506
ISO GMC Charges	219,620	181,916	154,992	88,157	174,349	19,357
<b>Annual Budget Cost</b>	<b>\$15,539,033</b>	<b>\$24,181,473</b>	<b>\$15,123,482</b>	<b>\$11,926,290</b>	<b>\$27,422,650</b>	<b>\$12,299,168</b>
Less: Third Party Revenue						
ISO Energy Sales	14,720,326	25,277,640	15,623,339	9,875,384	18,914,977	3,291,638
Third Party Sales	0	736,034	718,562	827,777	36,800	(681,762)
Non-member Revenue	0	0	0	108,425	0	0
Interest Income	0	0	0	0	0	0
	14,720,326	26,013,674	16,341,901	10,811,586	18,951,777	2,609,876
<b>Net Annual Budget Cost to Participants</b>	<b>\$818,707</b>	<b>(\$1,832,201)</b>	<b>(\$1,218,419)</b>	<b>\$1,114,704</b>	<b>\$8,470,873</b>	<b>\$9,689,292</b>

**Note:** Effective FY 2018, we are no longer budgeting market power purchases and market power sales because under MRTU, members loads and resources do not need Effective FY 2019 NCPA Contracts budget, CAISO GMC Charges and ISO Energy Sales related to NCPA Contracts are included above.

NORTHERN CALIFORNIA POWER AGENCY  
Load Aggregation Costs - CAISO  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
Alameda	\$12,691,811	\$15,932,348	\$13,573,417	\$5,581,473	\$13,349,525	(\$223,892)
Biggs	613,234	758,499	643,421	273,618	599,407	(44,014)
Gridley	1,365,272	1,608,759	1,396,750	652,072	1,370,162	(26,588)
Healdsburg	2,934,146	3,572,972	2,999,705	1,387,186	2,990,482	(9,223)
Lodi	16,518,894	19,911,016	16,635,028	7,949,957	16,477,332	(157,696)
Lompoc	4,994,207	6,103,482	5,204,146	2,121,186	5,027,261	(176,885)
Palo Alto	33,897,880	40,423,947	34,474,944	14,655,828	32,407,923	(2,067,021)
Plumas-Sierra	5,983,559	7,103,448	6,122,239	2,349,979	5,418,404	(703,835)
Port of Oakland	5,052,381	4,967,309	4,445,472	1,850,044	4,572,051	126,579
Ukiah	4,324,251	5,340,883	4,313,544	1,957,227	4,228,991	(84,553)
Santa Clara	127,000,226	166,693,634	149,425,754	59,884,991	147,324,702	(2,101,052)
BART	15,574,075	18,340,066	16,795,173	6,617,861	17,228,862	433,689
East Bay Community Energy	0	224,582,208	0	99,601,235	0	0
Pioneer Community Energy	42,908,333	35,238,402	0	0	0	0
San Jose Community Energy	0	48,461,828	0	85,676,461	0	0
Accrued Load Aggregation	0	0	0	13,972,468	0	0
<b>Annual Budget Cost</b>	<b>273,858,269</b>	<b>599,038,801</b>	<b>256,029,593</b>	<b>304,531,586</b>	<b>250,995,102</b>	<b>(5,034,491)</b>
Less: Energy Sales						
Alameda	0	30,035	0	54,897	0	0
Biggs	0	286	0	5,831	0	0
Gridley	0	762	0	6,640	0	0
Healdsburg	0	2,267	0	43,716	0	0
Lodi	0	10,560	0	92,586	0	0
Lompoc	0	4,138	0	18,850	0	0
Palo Alto	1,644	88,779	0	175,095	0	0
Plumas-Sierra	1,397,140	2,797,393	0	236,353	0	0
Port of Oakland	0	2,996	0	59,637	0	0
Ukiah	235,150	520,053	0	99,116	0	0
Santa Clara	94,749,641	89,923,369	0	6,466,757	0	0
BART	597,768	973,943	0	157,833	0	0
East Bay Community Energy	0	197,644,949	0	85,981,170	0	0
Pioneer Community Energy	34,347,266	30,672,464	0	0	0	0
San Jose Community Energy	0	40,867,258	0	80,532,551	0	0
Accrued Energy Sales	0	0	0	(6,089,416)	0	0
Total Energy Sales	131,328,609	363,539,252	0	167,841,616	0	0
Less: Third Party Revenue						
Non-member Revenues	8,561,067	39,097,767	0	12,105,738	0	0
Third Party Revenue	8,561,067	39,097,767	0	12,105,738	0	0
<b>Net Annual Budget Cost to Participa</b>	<b>\$133,968,593</b>	<b>\$196,401,782</b>	<b>\$256,029,593</b>	<b>\$124,584,232</b>	<b>\$250,995,102</b>	<b>(\$5,034,491)</b>

**Note:** Effective in FY 2018 Load Aggregation budget, CAISO GMC Charges and ISO Energy Sales related to WAPA energy are included Western Resources net co

NORTHERN CALIFORNIA POWER AGENCY  
Net GHG Obligations  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 2019	<b>Proposed FY 2021 Budget</b>	Budget Increase/ (Decrease)
Net GHG Obligations						
Alameda	\$7,659	\$61,400	\$0	\$25,740	\$0	\$0
BART	305,578	492,360	263,522	274,560	0	(263,522)
Biggs	14,486	87,405	0	42,590	0	0
Gridley	122,174	223,650	0	68,330	0	0
Healdsburg	102,551	257,840	0	59,440	0	0
Lodi	391,220	1,260,180	233,433	678,150	0	(233,433)
Lompoc	55,745	0	0	0	0	0
Ukiah	123,559	264,210	0	76,981	0	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$1,122,972</b>	<b>\$2,647,045</b>	<b>\$496,955</b>	<b>\$1,225,791</b>	<b>\$0</b>	<b>(\$496,955)</b>

NORTHERN CALIFORNIA POWER AGENCY  
Transmission  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
<b>Independent System Operator</b>						
Grid Management Charge	\$3,662,271	\$6,453,657	\$2,813,086	\$3,669,116	\$2,674,231	(\$138,855)
Wheeling Access Charge	104,569,875	92,194,375	110,581,940	57,620,963	112,666,515	2,084,575
Ancillary Services	3,040,303	12,784,938	2,372,540	3,466,109	3,750,030	1,377,490
Other Charges	1,549,274	8,309,573	1,321,289	12,639,764	935,325	(385,964)
<b>Annual Budget Costs</b>	<b>\$112,821,723</b>	<b>\$119,742,543</b>	<b>\$117,088,855</b>	<b>\$77,395,952</b>	<b>\$120,026,101</b>	<b>\$2,937,246</b>
Less: Third Party Revenue						
ISO Ancillary Sales	332,929	1,217,297	225,134	411,258	0	(225,134)
Non-member Revenues	2,223,939	20,315,942	0	1,277,346	0	0
Interest Income	30,901	26,932	30,901	126,395	30,901	0
Third Party Revenue	2,587,769	21,560,171	256,035	1,814,999	30,901	(225,134)
<b>Net Annual Budget Cost to Participants</b>	<b>\$110,233,954</b>	<b>\$98,182,372</b>	<b>\$116,832,820</b>	<b>\$75,580,953</b>	<b>\$119,995,200</b>	<b>\$3,162,380</b>

**NORTHERN CALIFORNIA POWER AGENCY**  
**Management Services -- Legislative & Regulatory**  
**FY 2021 Budget**

	<b>Legislative</b>		<b>Regulatory</b>		<b>Western</b>	<b>Customer</b>	<b>Proposed</b>		<b>Increase/</b>
	<b>State</b>	<b>Federal</b>	<b>State</b>	<b>Federal</b>	<b>Federal</b>	<b>Programs *</b>	<b>FY 2021</b>	<b>FY 2020</b>	<b>(Decrease)</b>
Advocacy	\$ 396,250	\$ 340,525	\$ -	\$ -	\$ 153,000	\$ -	\$ 889,775	\$ 910,500	\$ (20,725)
Legal	6,000	5,000	-	8,000	10,000	-	29,000	45,000	(16,000)
Dues & Memberships	23,370	12,775	-	6,000	-	-	42,145	43,601	(1,456)
Regulatory Compliance	-	-	250,000	-	-	-	250,000	300,000	(50,000)
Member Programs	61,400	12,200	-	-	-	112,500	186,100	143,600	42,500
Miscellaneous	24,307	65,021	8,529	25,729	17,057	13,000	153,642	153,642	-
Total costs w/o Labor	511,327	435,521	258,529	39,729	180,057	125,500	1,550,662	1,596,343	(45,681)
Labor	604,326	282,124	155,928	155,928	409,108	259,405	1,866,819	1,843,154	23,665
Subtotal	1,115,653	717,645	414,457	195,657	589,165	384,905	3,417,481	3,439,497	(22,016)
Administrative & General	203,487	108,174	59,015	36,705	112,200	80,202	599,783	537,270	62,513
Occupancy Costs	25,296	9,866	4,723	4,723	14,694	11,545	70,847	72,545	(1,698)
<b>Annual Budget Cost</b>	<b>1,344,436</b>	<b>835,685</b>	<b>478,195</b>	<b>237,085</b>	<b>716,059</b>	<b>476,652</b>	<b>4,088,111</b>	<b>4,049,312</b>	<b>38,800</b>
Less: Third Party Revenues									
Interest Income	1,817	1,130	729	387	2,909	5,828	12,800	12,800	-
<b>Net Annual Budget Cost to Participants</b>	<b>\$ 1,342,619</b>	<b>\$ 834,555</b>	<b>\$ 477,466</b>	<b>\$ 236,698</b>	<b>\$ 713,150</b>	<b>\$ 470,824</b>	<b>\$ 4,075,311</b>	<b>\$ 4,036,512</b>	<b>\$ 38,800</b>
FY 2020 Annual Budget Cost	1,296,660	835,470	520,417	227,971	745,117	423,678	4,049,312		
Increase/(Decrease)	\$ 47,776	\$ 215	\$ (42,222)	\$ 9,114	\$ (29,058)	\$ 52,974	\$ 38,799		

# Legislative Representation

FY 2021

## Specific Assumptions and Rationale

The Agency's Legislative Program is responsible for advocacy efforts in all branches of the state and federal government. This program is implemented through grassroots initiatives, which involve the Agency's elected officials and utility managers through the Agency's Legislative & Regulatory Affairs Committee.

The Legislative Program is divided into four separate budget centers:

1) State Legislative Representation; 2) Member Programs; 3) U.S. Congress, and; 4) Advocacy Groups.

1. **State Legislative Representation**—Concerned with representing the needs of public power systems and electricity ratepayers before members of the State Senate and Assembly, along with the Office of the Governor. NCPA's efforts in this area are dedicated to the preservation of local decision-making by public power systems. We also work to ensure that state electricity policy recognizes the diverse nature of NCPA member utilities, accommodates the differences between public power systems and private utilities, and does not adversely impact NCPA's resource investments.
2. **Member Programs**—Concerned with advocacy efforts carried out by NCPA members before the U.S. Congress, the California State Legislature, the state and federal executive branches, and state and federal energy and environmental agencies. Funds in this area are dedicated to funding member participation in grassroots activities, as well as for member forums where elected officials and utility directors are educated about the policy challenges the agency faces, and where our consumer-oriented positions and strategies are formulated. In addition, we work in this area to provide our members with regular access to and dialog with the policymakers with direct jurisdiction over the issues comprising our policy agenda.
3. **U.S. Congress**—Concerned with potential impacts of national energy and environment-related legislation on public power systems. Our emphasis in this area is focused upon advocacy before NCPA's congressional delegation and House and Senate Energy Committees, and supporting NCPA's regulatory policy objectives within the federal agencies with jurisdiction over energy, water, and environmental issues.
4. **Advocacy Groups**—Concerned with the Agency's participation in and associated financial support for, advocacy groups and national associations that share the Agency's consumer-oriented state, federal and regional policy goals. These advocacy groups include the California Municipal Utilities Association (CMUA), American Public Power Association (APPA), Southern California Public Power Authority, the Northwest Public Power Association, the League of Cities, the National Hydropower Association, Geothermal Energy Association, state water interests, the Transmission Agency of Northern California, the Transmission Access Policy Study Group (TAPS), the Alliance to Save Energy, and other consumer, labor and environmental advocacy groups. The Agency pays annual APPA dues as a pass-through on behalf of its members (with the exception of the Plumas-Sierra Rural Electric Cooperative) at a joint action membership level to minimize the overall dues obligation.

NORTHERN CALIFORNIA POWER AGENCY  
Legislative Representation  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	<b>Proposed FY 2021 Budget</b>	Budget Increase/ (Decrease)
Legislative						
State:						
State Legislature	\$618,051	\$643,089	\$617,458	\$313,557	\$632,459	\$15,001
Member Programs	424,444	499,252	473,530	274,834	483,194	9,664
Federal:						
U.S. Congress	513,332	486,928	506,402	166,711	497,859	(8,543)
Coalition Development	157,735	164,708	222,188	57,111	219,786	(2,402)
	<u>1,713,562</u>	<u>1,793,978</u>	<u>1,819,578</u>	<u>812,213</u>	<u>1,833,298</u>	<u>13,720</u>
Administrative & General	276,852	270,902	276,547	118,843	311,661	35,114
Occupancy Cost - Main HQ Building	32,654	37,854	36,005	15,110	35,162	(843)
<b>Annual Budget Cost</b>	<b><u>2,023,068</u></b>	<b><u>2,102,734</u></b>	<b><u>2,132,130</u></b>	<b><u>946,166</u></b>	<b><u>2,180,121</u></b>	<b><u>47,991</u></b>
Less: Third Party Revenue						
Interest Income	2,947	2,208	2,947	33	2,947	0
<b>Net Annual Budget Cost to Participants</b>	<b><u>\$2,020,121</u></b>	<b><u>\$2,100,526</u></b>	<b><u>\$2,129,183</u></b>	<b><u>\$946,133</u></b>	<b><u>\$2,177,174</u></b>	<b><u>\$47,991</u></b>

NORTHERN CALIFORNIA POWER AGENCY  
Legislative Representation  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
<b>State Legislature</b>						
Salaries & Benefits	\$322,387	\$369,468	\$319,632	\$182,793	\$339,639	\$20,007
Outside Services						
Legal Services - State Legislative	12,000	1,278	12,000	0	6,000	(6,000)
Agency Advocate	168,000	168,000	168,000	70,000	168,000	0
	180,000	169,278	180,000	70,000	174,000	(6,000)
Other Costs						
Travel- AGM- Leg/Reg	2,750	4,394	2,750	655	2,750	0
Travel- Leg/Reg	4,000	5,883	4,000	269	4,000	0
Staff Development -Leg/Reg	4,000	4,633	4,000	0	4,000	0
Expedited Mailings	500	0	500	0	500	0
Office Furniture/Supplies	2,500	4,704	2,500	1,687	2,500	0
Tech & Other Mtg Exp	5,000	2,099	5,000	0	5,000	0
Dues, Subscriptions & Publications	2,500	2,762	2,500	0	2,500	0
Legislative Tour	70,000	55,800	70,000	41,227	70,000	0
Capitol Day	10,000	9,656	10,000	350	10,000	0
CMUA Dues - NCPA	14,414	14,414	16,576	16,576	17,570	994
	115,664	104,344	117,826	60,764	118,820	994
	\$618,051	\$643,090	\$617,458	\$313,557	\$632,459	\$15,001
<b>Member Programs</b>						
Salaries & Benefits	\$195,937	\$314,374	\$255,023	\$176,219	\$264,687	\$9,664
Outside Services						
Communications Consultant	10,000	(10,000)	10,000	0	10,000	0
Strategic Consultant	5,000	(5,000)	5,000	0	5,000	0
Event Planning Consultant	120,000	126,395	120,000	73,023	120,000	0
	135,000	111,395	135,000	249,242	135,000	0
Other Costs						
Travel - AGM - Leg/Reg	1,000	3,479	1,000	0	1,000	0
Travel - Leg/Reg	2,200	0	2,200	0	2,200	0
Member Travel	30,000	17,764	20,000	0	20,000	0
Meeting Expense	2,857	7,813	2,857	509	2,857	0
Annual Meeting	25,000	32,823	25,000	25,233	25,000	0
Dues, Subs & Pubs	3,300	948	3,300	0	3,300	0
Strategic Development	900	1,000	900	0	900	0
Strategic Issues Conference	20,000	3,998	20,000	(150)	20,000	0
External Affairs	8,250	5,658	8,250	0	8,250	0
	93,507	73,483	83,507	25,592	83,507	0
	\$424,444	\$499,252	\$473,530	\$274,834	\$483,194	\$9,664

NORTHERN CALIFORNIA POWER AGENCY  
Legislative Representation  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	<b>Proposed FY 2021 Budget</b>	Budget Increase/ (Decrease)
<b>U.S. Congress</b>						
Salaries & Benefits - Leg/Reg	\$194,682	\$178,473	\$187,752	\$79,950	\$176,659	(\$11,093)
Outside Services						
Legal Services	5,000	9,094	5,000	562	5,000	0
Agency Advocate (Ca)	150,000	150,649	150,000	76,346	150,000	0
	155,000	159,743	155,000	76,908	155,000	0
Other Costs						
Travel - AGM	14,500	14,951	14,500	221	14,500	0
Travel - Leg/Reg	15,800	2,048	15,800	3,195	15,800	0
Expedited Mailings	2,000	1,116	2,000	807	2,000	0
Office Furniture/Supplies	2,000	3,614	2,000	172	2,000	0
APPA/NCPA Annual Legislative Rally	120,000	117,200	120,000	3,693	120,000	0
APPA Winter Rally	7,500	8,080	7,500	1,000	10,000	2,500
APPA Dues - NCPA	650	650	650	700	700	50
Dues & Subscriptions	1,200	1,053	1,200	65	1,200	0
	163,650	148,712	163,650	9,853	166,200	2,550
	\$513,332	\$486,928	\$506,402	\$166,711	\$497,859	(\$8,543)
<b>Coalition Development</b>						
Salaries & Benefits	\$42,689	\$24,754	\$107,142	\$43,163	\$105,465	(\$1,677)
Outside Services						
Transmission Access	55,000	50,435	55,000	0	54,275	(725)
Other Costs						
Travel - AGM- Leg/Reg	14,250	12,106	14,250	2,030	14,250	0
Travel - Leg/Reg	9,900	28,087	9,900	0	9,900	0
Expedited Mailings	200	0	200	0	200	0
Meeting Expenses	8,571	4,940	8,571	6,044	8,571	0
ACWA Annual Dues	1,275	1,275	1,275	1,275	1,275	0
NWPPA Annual Dues	3,600	3,600	3,600	3,600	3,600	0
Dues & Subscriptions	6,000	1,392	6,000	1,000	6,000	0
External Affairs	16,250	38,119	16,250	0	16,250	0
	60,046	89,519	60,046	13,949	60,046	0
	\$157,735	\$164,708	\$222,188	\$57,112	\$219,786	(\$2,402)

# Regulatory Representation

FY 2021

## Specific Assumptions and Rationale

The Agency's Regulatory Program is responsible for advocacy, compliance, and litigation related to proceedings before state, federal, and regional regulatory agencies.

The Regulatory Program is currently comprised of two budget centers:

**Federal Regulatory**—Much of the effort in this area will be focused on promoting activities that control and/or reduce compliance and transmission costs, as well as ensure that the suite of reliability standards and cybersecurity requirements do not impose an undue and unworkable burden on NCPA member systems.

Federal agencies with varying degrees of oversight responsibilities and involvement in key regulatory issues of interest to NCPA include:

- Federal Energy Regulatory Commission (FERC)
- North American Electric Reliability Corporation (NERC)
- Western Electric Coordinating Council (WECC)
- California Independent System Operator (CAISO)
- U.S. Department of Energy (DOE)
- Environmental Protection Agency (EPA)
- U.S. Forest Service

**State Regulatory**—This budget center relates to policy issues of interest before state regulatory bodies, with particular attention on activities at the California Air Resources Board (CARB), the California Energy Commission, the California Public Utilities Commission, the California Natural Resources Agency, and the State Water Resources Control Board. Fundamental to this effort is ensuring a consistent and clear understanding of, and support for, public power and local control in the various state regulatory agencies.

NORTHERN CALIFORNIA POWER AGENCY  
Regulatory Representation  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	<b>Proposed FY 2021 Budget</b>	Budget Increase/ (Decrease)
Regulatory						
Federal	\$226,384	\$244,506	\$190,712	\$106,835	\$195,657	\$4,945
State	530,718	366,160	459,512	170,278	414,457	(45,055)
	<u>757,102</u>	<u>610,666</u>	<u>650,223</u>	<u>277,113</u>	<u>610,114</u>	<u>(40,109)</u>
Administrative & General	116,750	90,472	88,492	37,999	95,720	7,228
Occupancy Cost - Main HQ Building	12,764	12,312	9,672	4,078	9,446	(226)
<b>Annual Budget Cost</b>	<b>886,616</b>	<b>713,450</b>	<b>748,387</b>	<b>319,190</b>	<b>715,280</b>	<b>(33,107)</b>
Less: Third Party Revenue						
Interest Income	1,116	3,559	1,116	1,743	1,116	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$885,500</b>	<b>\$709,891</b>	<b>\$747,271</b>	<b>\$317,447</b>	<b>\$714,164</b>	<b>(\$33,107)</b>

NORTHERN CALIFORNIA POWER AGENCY  
Regulatory Representation  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
<b>Federal</b>						
Salaries & Benefits	\$186,655	\$189,573	\$150,983	\$81,386	\$155,928	\$4,945
Outside Services						
Legal Services						
Regulatory Counsel	8,000	7,410	8,000	5,914	8,000	0
	8,000	7,410	8,000	5,914	8,000	0
Other Costs						
Travel - AGM	3,300	0	3,300	0	3,300	0
Travel - Regulatory	16,500	33,844	16,500	3,538	16,500	0
Staff Development	2,000	0	2,000	0	2,000	0
Office Furniture & Computer Supplies	2,000	1,916	2,000	604	2,000	0
Tech & Other Mtg Exp.	1,429	0	1,429	0	1,429	0
Dues, Subs & Pubs	6,000	11,753	6,000	15,393	6,000	0
Copy & Mailing Expenses	500	9	500	0	500	0
	31,729	47,522	31,729	19,535	31,729	0
	\$226,384	\$244,506	\$190,712	\$106,835	\$195,657	\$4,945
<b>State</b>						
Salaries & Benefits-Leg/Reg	\$222,189	\$168,008	\$150,983	\$91,402	\$155,928	\$4,945
Outside Services						
Special Counsel (CPUC)	300,000	190,574	300,000	77,734	250,000	(50,000)
	300,000	190,574	300,000	77,734	250,000	(50,000)
Other Costs						
Travel - AGM	600	0	600	0	600	0
Travel - Regulatory	5,000	4,601	5,000	1,043	5,000	0
Office Furniture & Computer Supplies	1,000	2,942	1,000	0	1,000	0
Meeting Expenses	1,429	34	1,429	98	1,429	0
Copy and Mailing Expenses	500	0	500	0	500	0
	8,529	7,577	8,529	1,141	8,529	0
	\$530,718	\$366,159	\$459,512	\$170,277	\$414,457	(\$45,055)

# **Western Representation**

FY 2021

## **Specific Assumptions and Rationale**

The Agency's Western Program is an advocacy program that bridges both the legislative and regulatory arenas. In addition to providing legislative and regulatory representation, the Western Program maintains strong relationships with representatives of the Western Area Power Administration (Western) and the U.S. Bureau of Reclamation (Reclamation), and works within these agencies to represent the interests surrounding the Central Valley Project (CVP) power resource within Reclamation. We join with water interests throughout the state to ensure policy issues of mutual concern are carefully considered and addressed.

Overall, this program area is concerned with maximizing the value of the federal power resource for NCPA member communities and districts—and the ratepayers they serve—by advancing proactive policies that improve the operation, administration and environmental preservation of the CVP, while also ensuring that the multitude of annual federal legislative and administrative proposals and actions related to the management and operation of the federal power marketing program do not adversely or unduly impact power customers.

NORTHERN CALIFORNIA POWER AGENCY  
Western Representation  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	<b>Proposed FY 2021 Budget</b>	Budget Increase/ (Decrease)
Federal Power Programs						
Salaries & Benefits	\$324,203	\$373,393	\$416,240	\$166,183	\$409,108	(\$7,132)
Outside Services						
Western Contract Support	42,000	35,000	20,000	0	0	(20,000)
Special Counsel	20,000	0	20,000	0	10,000	(10,000)
Agency Advocate (Wash DC)	153,000	150,709	153,000	75,000	153,000	0
Management Consultant	160,000	1,500	0	0	0	0
Other Costs						
Travel - AGM	4,000	0	4,000	0	4,000	0
Travel - Western	5,000	11,185	8,000	809	8,000	0
Expedited Mailings	200	0	200	0	200	0
Office Furniture/Supplies	2,000	7,247	2,000	883	2,000	0
Tech & Other Meeting Expenses	2,857	3,560	2,857	58	2,857	0
	713,260	582,595	626,297	242,934	589,165	(37,132)
Administrative & General	119,903	94,805	103,774	44,581	112,200	8,426
Occupancy Costs	14,997	14,539	15,046	6,307	14,694	(352)
<b>Annual Budget Cost</b>	<b>848,160</b>	<b>691,939</b>	<b>745,117</b>	<b>293,821</b>	<b>716,059</b>	<b>(29,058)</b>
Less: Third Party Revenue						
Interest Income	2,909	3,600	2,909	1,576	2,909	0
<b>Net Annual Budget Costs to Participants</b>	<b>\$845,251</b>	<b>\$688,339</b>	<b>\$742,208</b>	<b>\$292,245</b>	<b>\$713,150</b>	<b>(\$29,058)</b>

# Customer Programs

FY 2021

## Specific Assumptions and Rationale

This program area provides critical support for NCPA member systems with regard to the administration of utility customer-facing programs. Customer Programs offers valuable data and information needed to comply with state energy and environmental reporting obligations—and provides leadership for statewide public power compliance efforts to ensure that credible and consistent data is provided to state agencies in a manner that will help prevent future legislative intrusions on local control. This program offers a key forum for NCPA members with regard to identification of best practices as well as the implementation of joint contracting with vendors to support utility programs in the areas of demand management, transportation electrification, distributed generation, and customer engagement. Efforts in this area also focus on pro-active legislative and regulatory advocacy during state deliberations on issues affecting local utility program requirements.

Active NCPA member involvement in the Customer Program working groups has resulted in a robust program that effectively supports utility needs across a number of programs as well as in the reporting and compliance arena, and protects member interests through advocacy to ensure local control and flexible compliance.

NORTHERN CALIFORNIA POWER AGENCY  
Customer Programs  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	<b>Proposed FY 2021 Budget</b>	Budget Increase/ (Decrease)
Customer Programs						
Salaries & Benefits	\$296,336	\$136,678	\$255,399	\$52,523	\$259,405	\$4,006
Outside Services						
Public Benefits Efficiency	30,000	0	60,000	17,660	60,000	0
Other Costs						
Travel & Staff Development	8,500	6,802	8,500	1,778	8,500	0
Office Supplies	1,000	1,209	1,000	293	1,000	0
Webinars	3,500	1,062	3,500	474	3,500	0
More Than Smart Work Group	5,000	5,000	5,000	5,000	45,000	40,000
Workshops & Meetings	7,500	4,265	7,500	2,770	7,500	0
Efficiency Association Dues	2,500	0	2,500	0	0	(2,500)
	354,336	155,016	343,399	80,498	384,905	41,506
Administrative & General	72,672	64,800	68,457	29,397	80,202	11,745
Occupancy Cost - Main HQ Building	11,381	9,263	11,822	4,954	11,545	(277)
<b>Annual Budget Cost</b>	<b>438,389</b>	<b>229,079</b>	<b>423,678</b>	<b>114,849</b>	<b>476,652</b>	<b>52,974</b>
Less: Third Party Revenue						
Interest Income	5,828	8,031	5,828	6,496	5,828	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$438,389</b>	<b>\$229,079</b>	<b>\$423,678</b>	<b>\$108,353</b>	<b>\$470,824</b>	<b>\$47,146</b>

# Judicial Action

FY 2021

## Specific Assumptions and Rationale

The Judicial Action budget category is used to track costs of special/outside counsel related to specific case dockets associated with legislative and regulatory changes and/or pending/ongoing FERC litigation and CAISO stakeholder activities. Costs are accounted for by subject matter and are charged to members based on the allocation methodologies listed in Appendix D.

Judicial Action activities are subdivided as follows:

### **Power Management**

- CAISO Tariff Rates and Amendments—Addresses CAISO market design issues that arise through the CAISO stakeholder process, and resulting tariff filings and/or business or operating rules impacting generation resources, scheduling and dispatch.
- PG&E Rates and IA Amendments—Addresses PG&E's Transmission Owner Tariff (TO tariff) and Interconnection Agreement issues. Minor effort will be budgeted in this category, with the bulk of the agencies interest in this area to be coordinated through TANC or new coalitions developed between members.
- Western Rates and Contract Amendments—Addresses Western issues specific to the NCPA pool, such as tariff modifications and filings. Minor effort will be budgeted in this category with the expectation that issues that are not limited to the pool and that apply to all Western members with Base Resource entitlements will be addressed through the L&R Western program.
- Investigations and Refund Proceedings—Addresses issues such as the investigations of Market Manipulation, the Northwest Refund Proceeding and a multitude of dockets arising from a San Diego Gas & Electric Company Complaint.

The focus of the Power Management Program is the legal efforts that tend to exclusively affect pool members, resource owners (through the centralized dispatch of agency assets) and pooling operations—as opposed to the remainder of the Judicial Action categories that are focused on issues of broad agency and member interest regardless of whether the member participates in the pool or not.

### **Legal Contingency Fund**

This category was established by the NCPA Legislative and Regulatory Affairs Committee and the NCPA Commission to provide initial funding for unanticipated legal costs that may arise during the course of the fiscal year. It is understood that these funds would be utilized to fund cases related to NCPA's policy agenda and/or any issue related to the Western Area Power Administration and the Federal Power Resource. The amount budgeted for this purpose is viewed by the committee as a placeholder that would enable NCPA to take time-sensitive initial steps to protect NCPA's legal interests in these areas until full formal approval by the Legislative and Regulatory Affairs Committee and the NCPA Commission is obtained, and a budget for that specific case can be established. It is understood that the allocation of these funds would be in accordance with the NCPA Legislative and Regulatory Affairs allocation formula. However, the NCPA Commission has discretion to modify this allocation if warranted.

NORTHERN CALIFORNIA POWER AGENCY  
Judicial Action  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	<b>Proposed FY 2021 Budget</b>	Budget Increase/ (Decrease)
<b>PRIVILEGED &amp; CONFIDENTIAL</b>						
<b>Power Management Related</b>						
ISO Tariff Rates and Amendments	\$325,000	\$286,942	\$325,000	\$77,491	\$325,000	\$0
PG&E Rates and IA Amendments	200,000	38,022	200,000	12,134	75,000	(125,000)
Western Rates and Contract Amendments	25,000	0	25,000	0	10,000	(15,000)
Investigations and Refund Proceedings	25,000	1,199	25,000	0	10,000	(15,000)
	575,000	370,739	575,000	89,625	420,000	(155,000)
<b>Regulatory Related</b>						
Legal Contingency Fund	<b>50,000</b>	<b>0</b>	<b>50,000</b>	<b>0</b>	<b>40,000</b>	<b>(10,000)</b>
<b>Annual Budget Cost to Participants</b>	<b>625,000</b>	<b>370,739</b>	<b>625,000</b>	<b>89,625</b>	<b>460,000</b>	<b>(165,000)</b>
Less: Revenue from LEC Participants	70,623	62,352	74,646	37,323	74,282	(364)
<b>Net Annual Budget Cost to Participants</b>	<b>\$554,377</b>	<b>\$308,387</b>	<b>\$550,354</b>	<b>\$52,302</b>	<b>\$385,718</b>	<b>(\$164,636)</b>

Totals exclude CVPIA and PG&E Bankruptcy 2019 case budgets of \$1,602,500 and \$100,000 which are long-term cases funded for multiple years.

**Northern California Power Agency  
Management Services -- Power Management  
FY 2021 Budget**

	Power Management <sup>1</sup>	Gas Purchase Program	Mkt Purchase Project	Proposed FY 2021	FY 2020	Increase/ (Decrease)
Travel & Staff Development	\$ 149,907	\$ -	\$ -	\$ 149,907	\$ 152,010	\$ (2,103)
Legal	38,000			38,000	42,000	(4,000)
Other Professional Services	129,300			129,300	91,251	38,049
Brokerage Fees	48,000			48,000	46,800	1,200
Software & Computer Supplies	374,500			374,500	208,435	166,065
Data Comm Lines	150,000			150,000	141,000	9,000
Miscellaneous Supplies & Materials	81,573		250	81,823	85,216	(3,393)
Total costs w/o Labor	971,280	-	250	971,530	766,712	204,818
Labor	7,935,122	60,725	86,823	8,082,670	7,778,189	304,481
Subtotal	8,906,402	60,725	87,073	9,054,200	8,544,901	509,299
Administrative & General	2,009,833	14,935	21,449	2,046,217	1,789,281	256,936
Occupancy Cost	257,638	1,949	2,796	262,383	276,338	(13,955)
Power Mgmt Administrative Liquidation	(10,050)	4,129	5,921	-	-	-
Liquidation to Plants	(38,677)			(38,677)	(37,109)	(1,568)
<b>Annual Budget Cost</b>	<b>11,125,146</b>	<b>81,738</b>	<b>117,239</b>	<b>11,324,123</b>	<b>10,573,411</b>	<b>750,712</b>
Less: Third Party Revenues						
Interest Income	37,381	361	5,157	42,899	42,899	-
<b>Net Annual Budget Cost to Participants</b>	<b>\$ 11,087,765</b>	<b>\$ 81,377</b>	<b>\$ 112,082</b>	<b>\$ 11,281,224</b>	<b>\$ 10,530,512</b>	<b>\$ 750,712</b>
FY 2020 Annual Budget Cost	10,347,374	77,025	106,113	10,530,512		
Increase/(Decrease)	\$ 777,772	\$ 4,713	\$ 11,126	\$ 793,611		

Note 1 Power Management consists of Administration, SCALD, Forecasting, Planning, Prescheduling & Trading, Fuel Acquisition Industry Restructuring & Regulatory Affairs, and Contracts Administration, Interconnection Services & External Affairs. See detail, next page

Note 2 In FY 2021 accounts were reclassified to better reflect their character. FY 2020 balances were also reclassified for comparability.

**Northern California Power Agency  
Management Services -- Power Management (Detail)  
FY 2021 Budget**

	Power Management								
	Power Mgt Administration	System Control & Load Dispatch	Forecasting, Planning, PreSch	Industry Restr & Reg Affairs	Contract Administration	Fuel Acquisition	Total Power Mgt FY 2021	Total Power Mgt FY 2020	Increase/ (Decrease)
Travel & Staff Development	\$ 20,690	\$ 65,000	\$ 46,496	\$ 5,000	\$ 12,721	\$ -	\$ 149,907	\$ 152,010	\$ (2,103)
Legal				5,000	33,000		38,000	42,000	(4,000)
Other Professional Services	5,000	95,000	20,000		9,300		129,300	91,251	38,049
Brokerage fees			48,000				48,000	46,800	1,200
Software & Computer Supplies		220,000	154,500				374,500	208,435	166,065
Data Comm lines		150,000					150,000	141,000	9,000
Miscellaneous supplies & materials	3,000	32,017	7,770	32,900	5,886	-	81,573	84,966	(3,393)
Total costs w/o Labor	28,690	562,017	276,766	42,900	60,907	-	971,280	766,462	204,818
Labor	547,810	4,486,516	1,930,093	270,555	667,285	32,863	7,935,122	7,636,645	298,477
Subtotal	576,500	5,048,533	2,206,859	313,455	728,192	32,863	8,906,402	8,403,107	503,295
Administrative & General		1,217,578	513,673	79,771	195,232	3,579	2,009,833	1,757,173	252,660
Occupancy Cost		156,335	63,739	10,610	26,954	-	257,638	271,336	(13,698)
Power Mgmt Administrative Liquidation	(576,500)	343,309	150,071	21,316	49,519	2,235	(10,050)	(9,752)	(298)
Liquidation to Plants						(38,677)	(38,677)	(37,109)	(1,568)
<b>Annual Budget Cost</b>	<b>-</b>	<b>6,765,755</b>	<b>2,934,342</b>	<b>425,152</b>	<b>999,897</b>	<b>-</b>	<b>11,125,146</b>	<b>10,384,755</b>	<b>740,391</b>
Less: Third Party Revenues									
Interest Income		18,443	10,529	2,430	5,979		37,381	37,381	-
<b>Net Annual Budget Cost to Participants</b>	<b>\$ -</b>	<b>\$ 6,747,312</b>	<b>\$ 2,923,813</b>	<b>\$ 422,722</b>	<b>\$ 993,918</b>	<b>\$ -</b>	<b>\$ 11,087,765</b>	<b>\$ 10,347,374</b>	<b>\$ 740,391</b>
FY 2020 Annual Budget Cost	-	6,063,974	2,923,614	412,049	947,737	-	10,347,374		
Increase/(Decrease)	\$ -	\$ 701,781	\$ 10,728	\$ 13,103	\$ 52,160	\$ -	\$ 777,772		

## **POWER MANAGEMENT ADMINISTRATION**

The Power Management Business Unit consists of one Program and four Subprograms: System Control and Load Dispatch; Forecasting, Portfolio/Pool Management and Scheduling; Contracts, Interconnection Services and External Affairs; and Industry Restructuring and Regulatory Affairs. There are currently 26 full time staff positions filled. In addition to the Program and Subprograms described above, which are managed and administered through the Power Management Business Unit, there are service charges that flow into the Power Management budget as line items (Information Systems) and two Subprograms (Energy Risk Management and a portion of Settlements) that are direct charged. The costs associated with these line items, Programs and Subprograms are independently managed and administered through the Administrative Services Business Unit with costs allocated pursuant to the Power Management and Administrative Services Cost Allocation Methodology.

### **Goals**

The Goal of the Power Management Business Unit, as administered through the Power Management Administration Program is to enhance the portfolio and financial positions of NCPA members through: 1) The economic planning, scheduling and dispatching of member contracts and assets to meet load; 2) Effective management of NCPA power pool operations and contractual arrangements; 3) Integration and optimization of the Western power resource on behalf of assigning pool members into pooled operations; 4) Management and coordination of power transportation arrangements, including the NCPA/CAISO Metered Sub System Aggregation Agreement, Interconnection Agreements and the NCPA/Member Scheduling Coordination Program Agreement; 5) Coordination of joint and individual member service requests; 6) Management and coordination of purchase and sale activities within both member and NCPA risk management criteria; 7) Coordination of planning, operations and maintenance activities with the CAISO as the control area operator; and 8) Advocacy on behalf of members in technical, legislative and regulatory proceedings.

### **Volume Measures**

- Provide staff support to 12 NCPA Commission meetings per year.
- Provide staff support to 12 Pooling Committee meetings per year.
- Provide staff support to 12 Utility Director meetings per year.
- Provide staff support to 12 Facilities Committee meetings per year and act as Secretary to the Facilities Committee.
- Provide staff support to 12 LEC Project Participant Committee meetings per year.
- Provide staff support to administer the results from cost and revenue allocation studies.
- Provide staff support to Non-Member Customers (MEID, PCWA, SJCE, EBCE, and TBD).
- Provide staff support to internal Risk Management Committee and Risk Oversight Committee.

### **Efficiency Measures**

- Activities of the Power Management Business Unit are coordinated and Volume and Efficiency measures of Programs and Subprograms are being achieved.
- Maintain Power Management portion of Agency website and ensure it is kept current and Agency documents are accessible for reference by member staff.
- Non-Member Customer activities are conducted in an efficient manner, and do not disrupt or negatively impact services to members.
- Business unit budget and staffing levels for FY 2021 are kept consistent with Commission direction.

- Ensure that Power Management procedures and systems remain consistent with CAISO Tariff and Business Practice Manual requirements.
- Communicate and ensure compliance with Agency wide policies and procedure.

Northern California Power Agency  
Power Management Administration  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	Proposed FY 2021 Budget	Increase/ (Decrease)
<b>Power Management Administration</b>						
Salaries & Benefits	\$598,979	\$529,809	\$520,208	\$279,616	\$547,810	\$27,602
Travel & Staff Development	18,143	12,417	20,690	2,716	20,690	0
Outside Services						
Other	8,000	0	6,000	0	5,000	(1,000)
Other						
Mobile Phone Services	1,200	740	600	314	600	0
Office Supplies	1,600	1,107	1,800	653	1,800	0
Software	1,000	0	0	0	0	0
Memberships	300	0	0	0	0	0
Books, Tapes and Subscriptions	1,000	2,025	200	1,350	200	0
Equipment Repair and Maintenance	1,000	0	0	0	0	0
Minor Equipment and Tools	2,000	0	400	0	400	0
	<u>\$633,222</u>	<u>\$546,098</u>	<u>\$549,898</u>	<u>\$284,649</u>	<u>\$576,500</u>	<u>\$26,602</u>
Liquidated Pwr Mgmt Admin	(633,222)	(546,098)	(549,898)	(284,649)	(576,500)	(26,602)
<b>Net Annual Budget Cost to Participan</b>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>

## **SYSTEM CONTROL AND LOAD DISPATCH GOALS, OBJECTIVES AND MEASUREMENT PARAMETERS**

### **Goals**

The goal of Dispatch and Schedule Coordination is to provide for the safe, reliable, and economic dispatch and scheduling of NCPA, NCPA member, and contracted resources to meet load and scheduling requirements on a daily, hourly and real-time basis.

Objectives to achieve this goal are:

- Perform NCPA dispatch and Schedule Coordination (SC) services and perform the real-time administration of the NCPA CAISO MSSA agreement and NCPA member and contractual agreements on a sustainable, 24-hour/day level.
- Ensure NCPA and third party generation and ancillary services bids are scheduled to NCPA members or the market through the SC function, and delivered to NCPA members and third parties or the market in accordance with CAISO Tariff and MSSA Agreement.
- Coordinate NCPA generation and facility operations and outages with NCPA members, third parties, CAISO, PG&E, BANC and Western in accordance with established agreements.
- Ensure compliance with NERC and WECC Reliability Standards, and CAISO Tariff.
- Provide staff training programs to allow access, as needed, to qualified internal NCPA staff, with a defined career path to system dispatcher or system dispatcher-relief/schedule coordinator-relief job functions, or other power management job functions.
- Provide staff coverage ratios for vacation and holiday schedules with minimal overtime required.

### **Measurement Parameters**

#### **Volume Measures**

- Dispatch: Continually dispatch generation to balance NCPA MSSA every 5 minutes (Deviation Band maintenance).
- Dispatch: Forecast NCPA Pool loads and re-schedule resources every hour as needed to maintain balance.
- Dispatch: Dispatch Lodi Energy Center (LEC) to meet CAISO market awards and instructions.
- Day Ahead Scheduling: Aggregate, verify, and submit to the CAISO schedules of load demand, energy, ancillary service and transmission usage schedules for NCPA Operating Entities (NCPA Pool, SVP, City of Roseville, BART), and third parties. Verify and submit to CAISO daily schedules for LEC participants.
- Hour Ahead Scheduling: Verify for correctness, and coordinate with counter-parties hourly demand, energy, ancillary service and transmission usage schedules.
- Coordinate generation and facility outages with NCPA members, third parties, CAISO, PG&E, BANC, Western, and LEC participants.
- Monitor NCPA system compliance with applicable WECC and NERC Reliability Standards.

- Provide a minimum of 40 hours of NERC certified continuing education hours (CEH), or equivalent, to System Dispatchers and Schedule Coordinators annually.
- Provide training to Schedule Coordinators to achieve System Dispatcher qualification according to procedure NCPA-PM-004.
- Participate in WECC, NERC, CAISO, PG&E and Western operating committees and work groups.
- Coordinate and manage implementation of NERC Reliability Standards associated with NCPA's registration as a Generator Owner and Generator Operator.

### **Efficiency Measures**

- Remain a fully qualified and registered Schedule Coordinator with the CAISO.
- Stay within MSSA Deviation Band at least 97.5% of the time.
- Awarded CAISO energy and A/S schedules for LEC are followed.
- Schedules processed within CAISO timelines.
- No curtailing of NCPA member loads due to resource deficiency.
- Facility outages coordinated to achieve minimum cost impacts.
- 100% compliance with CAISO enforcement protocols, i.e., no penalty sanctions.
- Annually review and self-certify compliance with WECC and NERC reliability standards.
- Maintain certified and qualified staff per NCPA, NERC and WECC standards.

### **Program Structure and Functional Responsibilities**

- **Dispatch and RT Resource Management**  
Provides for the 24x7 monitoring of member and contractual loads and resources, real-time dispatch of resources to balance with load obligations (where load obligation is both load or a schedule associated with an inter schedule coordinator trade or export), current day and real-time power trading, and facilities outage coordination in accordance with the Metered Sub-System Aggregator Agreement (MSSA), CAISO, BANC, Western, WECC, and NERC operating procedures and protocols.
- **Schedule Coordination**  
Provides for the day-ahead and hour-ahead scheduling of NCPA, member and contractual loads and resources, and LEC participants with the CAISO, compliance with WECC Unscheduled Flow Mitigation procedures, transaction E-tagging, and transmission availability monitoring.
- **System Control and Data Acquisition**  
Provides for hardware, software, and communications systems to enable real-time monitoring and control of NCPA member and contractual loads and generation facilities. Provides for the operation of system communications capabilities with CAISO, SVP, Western, WECC and PG&E.

- **WECC/NERC Compliance and Participation**

Ensure compliance with WECC and NERC Reliability Standards. Provide for participation in industry workgroups such as the WECC Operating Committee, WECC Chief Dispatchers workgroup, WECC Compliance workshop, WECC Generator Operator workgroup, and other operating reliability groups.

Northern California Power Agency  
System Control and Load Dispatch  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	Proposed FY 2021 Budget	Increase/ (Decrease)
Dispatch & Real-Time Resource Management	\$2,403,086	\$2,504,729	\$2,439,941	\$1,269,672	\$2,620,419	\$180,478
Schedule Coordination	2,512,352	2,496,232	2,619,988	1,195,680	2,804,320	184,332
System Control & Data Acquisition	956,201	962,969	821,444	450,724	1,127,847	306,403
WECC/NERC Compliance & Participation	235,777	174,798	201,044	73,826	213,169	12,125
<b>Annual Budget Cost</b>	<b>6,107,416</b>	<b>6,138,728</b>	<b>6,082,417</b>	<b>2,989,902</b>	<b>6,765,755</b>	<b>683,338</b>
Less: Third Party Revenue						
Interest Income (Operating Account)	18,443	18,155	18,443	8,704	18,443	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$6,088,973</b>	<b>\$6,120,573</b>	<b>\$6,063,974</b>	<b>\$2,981,198</b>	<b>\$6,747,312</b>	<b>\$683,338</b>

Northern California Power Agency  
System Control and Load Dispatch  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	Proposed FY 2021 Budget	Increase/ (Decrease)
<b>Dispatch &amp; Real-Time Resource Management</b>						
Salaries & Benefits						
Dispatch & Scheduling	\$1,560,090	\$1,664,393	\$1,600,764	\$806,101	\$1,715,370	\$114,606
Information Systems	162,619	211,403	186,266	169,562	182,424	(3,842)
Travel & Staff Development	25,000	15,921	25,000	11,220	20,000	(5,000)
Dues & Subscriptions	1,000	1,369	1,000	513	1,500	500
Office Furniture & Equipment	4,000	0	4,000	5,073	2,000	(2,000)
Office Supplies	2,700	2,143	2,700	1,185	5,100	2,400
Computer Spare Parts	8,400	3,650	8,400	2,129	5,000	(3,400)
Regulatory Fees & Permits	600	594	625	708	400	(225)
Pwr Mgmt Admin Liquidation	141,470	132,524	125,782	65,099	131,365	5,583
	1,905,879	2,031,997	1,954,537	1,061,590	2,063,159	108,622
Administrative & General	432,921	409,069	419,513	180,435	491,648	72,135
Occupancy Cost - Main HQ Building	64,286	63,663	65,891	27,647	65,612	(279)
	<u>\$2,403,086</u>	<u>\$2,504,729</u>	<u>\$2,439,941</u>	<u>\$1,269,672</u>	<u>\$2,620,419</u>	<u>\$180,478</u>
<b>Schedule Coordination</b>						
Salaries & Benefits						
Dispatch & Scheduling	\$1,502,319	\$1,624,044	\$1,550,711	\$752,656	\$1,698,334	\$147,623
Information Systems	308,024	243,730	379,515	139,839	341,001	(38,514)
Travel & Staff Development	18,000	9,268	18,000	4,050	13,000	(5,000)
Office Furniture & Equipment	1,500	0	1,500	0	1,000	(500)
Dues/Subscriptions	4,400	4,479	4,400	1,932	4,500	100
Special Equipment & Tools	500	0	500	0	0	(500)
Office Supplies, Maintenance & Miscs. Expenses	500	166	500	0	3,100	2,600
Pwr Mgmt Admin Liquidation	147,150	131,283	134,474	69,597	140,147	5,673
	1,982,393	2,012,970	2,089,600	968,074	2,201,082	111,482
Administrative & General	460,293	416,975	457,477	196,987	531,448	73,971
Occupancy Cost - Main HQ Building	69,666	66,287	72,911	30,619	71,790	(1,121)
	<u>\$2,512,352</u>	<u>\$2,496,232</u>	<u>\$2,619,988</u>	<u>\$1,195,680</u>	<u>\$2,804,320</u>	<u>\$184,332</u>

Northern California Power Agency  
System Control and Load Dispatch  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	Proposed FY 2021 Budget	Increase/ (Decrease)
<b>System Control And Data Acquisition</b>						
Salaries & Benefits						
Information Systems	\$359,888	\$413,646	\$361,927	\$213,315	\$396,921	\$34,994
Dispatch & Scheduling	7,848	8,746	7,932	3,206	8,224	292
Outside Services						
Contract/Program Consulting	0	38,849	0	0	50,000	50,000
Network Services	20,000	12,677	20,000	6,946	20,000	0
Metering Service	18,667	21,240	18,667	10,620	25,000	6,333
Travel & Staff Development	15,100	7,883	14,600	574	24,000	9,400
Data Com Lines	8,000	8,468	8,000	3,624	12,000	4,000
Software Licenses	45,000	57,160	50,000	11,395	200,000	150,000
Disaster Recovery Center	1,500	0	4,488	0	1,000	(3,488)
Supplies	1,000	716	1,000	572	1,000	0
Computer Hardware	15,000	6,632	15,000	10,122	15,000	0
Communication Services - Internet	13,000	7,963	13,000	3,318	13,000	0
Communication Services - Intranet	120,000	115,781	120,000	55,328	125,000	5,000
Property Insurance	4,301	4,582	2,408	0	2,504	96
Special Equipment & Tools	1,000	0	1,000	0	0	(1,000)
Emergency Gen. Fuel/Maint.	1,600	1,595	1,630	949	913	(717)
Computer Hardware (>\$5K)	109,000	56,905	0	49,086	0	0
Pwr Mgmt Admin Liquidation	59,406	53,223	43,995	22,772	60,832	16,837
	800,310	816,066	683,647	391,827	955,394	271,747
Administrative & General	139,459	130,226	121,344	52,000	157,935	36,591
Occupancy Cost - Main HQ Building	16,432	16,677	16,453	6,897	14,518	(1,935)
	\$956,201	\$962,969	\$821,444	\$450,724	\$1,127,847	\$306,403
<b>WECC/NERC Compliance &amp; Participation</b>						
Salaries & Benefits	\$133,820	\$118,617	\$136,351	\$49,473	\$144,242	\$7,891
WECC Membership Dues/Security	900	0	900	0	0	(900)
Travel	8,100	7,787	8,100	2,279	8,000	(100)
NERC/WECC Assessments	9,000	7,375	9,000	1,000	9,000	0
Pwr Mgmt Admin Liquidation	12,173	9,334	10,616	5,494	10,965	349
	163,993	143,113	164,967	58,246	172,207	7,240
Administrative & General	60,065	27,562	31,550	13,675	36,547	4,997
Occupancy Cost - Main HQ Building	11,719	4,123	4,527	1,905	4,415	(112)
	\$235,777	\$174,798	\$201,044	\$73,826	\$213,169	\$12,125

## **FORECASTING, PLANNING, PRESCHEDULING AND TRADING GOALS, OBJECTIVES AND MEASUREMENT PARAMETERS**

### **Goals**

The overall goals of NCPA's Forecasting, Planning, Prescheduling and Trading activities are to serve members' and customers' needs subject to direction and risk tolerance limits, reduce the uncertainty of cost and revenue streams, and enhance the value of assets to meet the financial requirements of participating members.

### **Measurement Parameters**

#### **Volume Measures**

- Provide monthly load resource balance summaries and energy coverage status to all pool members, BART and customers
- Provide RPS and GHG obligation/compliance coverage status in the applicable time frames to all participating members
- Provide monthly energy supply and load forecast variance reports that explain changes and the basis for changes from annual forecasts
- Support NCPA Risk Management Activities, ROC meetings with market views, purchase/sale strategy recommendations, and product justifications
- Provide monthly analysis of hydro storage, operating plans and forecasts
- Provide weekly market reports and monthly market calls to members
- Provide daily load forecasts for pool member, BART and customer loads for use in pre-scheduling and real-time
- Prepare annual load forecasts, by member for CAISO, CEC and NCPA annual budget
- Prepare filings – e.g. data required for quarterly and annual Power Content Labels
- Prepare daily pre-schedules in accordance with WECC and CAISO scheduling guidelines
- Construct power supply model for each member (Pool and BART) that incorporates all NCPA costs and report monthly on status
- Special projects and studies, e.g. CRR/LMP, load following, MRTU/Pool settlements, COTP utilization, transactions (e.g. schedule exchange, BART Products at COB), resource evaluations (e.g. Solar Bidding), cloud seeding, etc.
- Provide scheduling and planning services for new customers (e.g.: Merced Irrigation District, Energy and East Bay Community Energy and San Jose Clean Energy)
- Prepare and submit Congestion Revenue Rights nominations and bids into the CAISO markets

#### **Efficiency Measures**

- MPP participant load resource balances are maintained within risk management matrix guidelines
- Hydro project water releases are managed within license parameters to maximize participant revenues and achieve target reservoir levels for end of season storage
- Regulatory (GHG, Power Content Label, RPS and RA) reporting obligations are submitted accurately and on time
- All pre-schedules submitted in accordance with WECC and CAISO scheduling guidelines

## **Subprogram Structure and Functional Responsibilities**

- ***Forecasting***

The forecasting effort includes the following areas: member loads (long- and short-term up to real-time), economic and business assessments, hydrology along with weather and market prices for energy, natural gas, RECs and GHG Compliance Instruments. The monthly conference call on market conditions are products of this program.

Included in this function are the following activities and cost components:

- Subscription costs associated with economic, price and weather forecasting services
- Software costs associated with load forecasting and a standalone statistical analysis package (SAS) that is used to support statistical analyses across the organization and across business units
- Staff labor required to support the biweekly market conditions report and monthly conference calls
- Staff labor required to support load forecasting efforts as part of the budget, in response to reporting obligations to the CAISO and CEC and in an operational context in the day-ahead and real-time scheduling time frames

- ***Resource Planning, Optimization, Risk Analyses and Management***

Each element of this program is performed for the Pool and individual members. A certain level of tailoring is required depending on the physical, contractual and financial needs of individual members. The long-term (up to 20 yrs) load/resource optimization and balance portion of this program provides the basic information for the NCPA annual budget and is adjusted for other filing and resource commitment requirements. The short-term planning updates (current year up to 5 yrs) and risk assessment provide for pre-month forward transaction requirements (purchases and/or sales of power, fuel, GHG Compliance Instruments and RECs). The RPS and GHG compliance obligation/compliance coverage status are maintained in both the long and short term load/resource balance for participating members and project participants (e.g. LEC GHG). The Value of Storage (opportunity cost of energy limited resources) for hydro resources and evaluation/development of resources and products (power plants, and power/fuel contracts) are also developed in this program. Special projects and transaction types, special studies (e.g. LMP/CRR, potential new customer load and resource optimization models , etc.) are also developed under this program. Finally, this program provides support for the monthly comparison between the current FY annual budget vs the All Resources Bill (ARB), along with the initial design and development for this portal product.

Included in this function are the following activities and cost components:

- Legal costs associated procurement transactions, procurement RFP's and other FERC activity related to gas procurement
- Software costs associated with the Plexos Production Cost Model, MRTU bidding model, at Risk and historical hydro data
- Risk Management consulting services (if needed)
- Staff labor to participate in weekly operational discussions of expected plant output level and operations and the integration of this information into adjusted forecasts, schedules and operating plans
- Staff labor to review and coordinate with Operating Entities in the hydro project and to develop value of storage estimates
- Staff labor to provide a running assessment of actual member costs versus budget forecast, coupled with a running updated estimate of forecast member costs for the portion of the year still outstanding versus the remaining budget as forecast

- ***Power and Fuel Transactions (Purchase and/or Sale) and Related Products***

This program has expired and activities transferred to Pre-Scheduling.

- ***Pre-Scheduling***

Provides for the day-ahead load/resource pre-schedules for the Pool and other members and customers (e.g. BART, Merced Irrigation District, San Jose Clean Energy, and East Bay Community Energy), day-ahead resource coordination/validation/scheduling for TID, SVP and Roseville, and market participation/scheduling/fuel procurement for MSS resources and non-MSS resources (e.g. LEC). The load/resource pre-schedules are balanced with additional day-ahead transactions and accounts for all requirements under NCPA-CAISO Metered Subsystem Agreement and SMUD-WAPA scheduling of base resource. This operation also includes E-tagging, coordination/communications with all NCPA resource owners and management of CVP Corp Portal and CVP BR (Pool and BART).

Included in this function are the following activities and cost components:

- Brokerage fees on ICE required to support purchases and sales
- OASIS and OATI Tagging Software
- WECC Scheduling Meetings and Market Interface Committee participation
- Staff labor to develop monthly load/resource balances for each pool member and to coordinate/adjust for differences between expected and actual western base resource deliveries
- Staff labor to prepare daily pre-schedules for loads and resources, including Operating Entity (OE) coordination and implementation of OE operating instructions
- Staff labor to investigate, correct or assist with any schedules that fail the CAISO SC validation process
- Staff labor to schedule non-MSS resources
- Staff labor to purchase gas for MSS and Non-MSS resources
- SAS software cost for analysis and forecasts

- ***Power Pool Operations and Settlement Standards***

This subprogram has expired and activities transferred to Resource Planning, Risk Analysis & Management.

- ***Facilities Agreement Administration***

This subprogram has expired and activities transferred.

Northern California Power Agency  
Forecasting, Planning, Prescheduling and Trading  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
Forecasting	\$645,375	\$575,301	\$631,611	\$218,138	\$682,573	\$50,962
Resource Planning, Optimization Risk Analysis & Mgmt	551,822	548,440	566,673	281,786	656,832	90,159
Power & Fuel Transaction	146,114	134,520	145,149	69,235	153,402	8,253
Pre-Scheduling	844,303	799,427	845,737	363,863	872,298	26,561
Power Pool Operations & Settlement Standards	404,754	476,031	563,668	215,097	377,366	(186,302)
Facilities Agreement Administration	182,799	137,219	181,305	61,943	191,871	10,566
<b>Annual Budget Cost</b>	<b>2,775,167</b>	<b>2,670,938</b>	<b>2,934,143</b>	<b>1,210,062</b>	<b>2,934,342</b>	<b>199</b>
Less: Third Party Revenue						
Interest Income	10,529	11,611	10,529	7,406	10,529	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$2,764,638</b>	<b>\$2,659,327</b>	<b>\$2,923,614</b>	<b>\$1,202,656</b>	<b>\$2,923,813</b>	<b>\$199</b>

Northern California Power Agency  
Forecasting, Planning, Prescheduling and Trading  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
<b>Forecasting</b>						
Salaries & Benefits						
Power Management	\$364,748	\$359,528	\$371,225	\$127,189	\$391,483	\$20,258
Information Systems	0	0	0	140	19,615	19,615
Travel & Staff Development	38,070	8,946	30,070	1,153	26,123	(3,947)
Professional Services	10,500	12,255	5,000	6,484	0	(5,000)
Software	26,000	30,753	26,000	0	27,000	1,000
Books, Tapes and Subscription	2,300	0	2,300	0	2,300	0
Tactical Market Info - Platts, NGI	44,500	28,842	50,300	17,143	50,300	0
Pwr Mgmt Admin Liquidation	38,977	30,721	33,351	17,278	35,145	1,794
	525,095	471,045	518,246	169,387	551,966	33,720
Administrative & General	106,075	90,693	99,137	42,787	116,569	17,432
Occupancy Cost - Main HQ Building	14,205	13,563	14,228	5,964	14,038	(190)
	<u>\$645,375</u>	<u>\$575,301</u>	<u>\$631,611</u>	<u>\$218,138</u>	<u>\$682,573</u>	<u>\$50,962</u>

Northern California Power Agency  
Forecasting, Planning, Prescheduling and Trading  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	Proposed FY 2021 Budget	Increase/ (Decrease)
<b>Resource Planning, Optimization, Risk Analysis &amp; Mgmt</b>						
Salaries & Benefits						
Power Management	\$343,542	\$362,609	\$349,416	\$150,015	\$366,426	\$17,010
Information Systems	0	0	0	0	39,231	39,231
Travel & Staff Development	10,989	4,943	10,989	1,114	12,373	1,384
Professional Services	14,874	12,500	32,884	24,250	20,000	(12,884)
Software	36,250	17,715	37,750	46,230	44,000	6,250
Tactical Market Information / Data	1,000	16,800	1,000	0	13,200	12,200
Mobile Phone Service	2,200	2,805	2,400	1,129	2,400	0
Office Supplies	2,000	0	50	0	50	0
Copy, Printing, Binding	100	0	100	0	100	0
Books, Tapes and Subscription	2,300	0	125	0	125	0
Equip Repair & Maintenance	390	286	390	0	390	0
Pwr Mgmt Admin Liquidation	33,166	29,139	29,927	15,485	33,885	3,958
	446,811	446,797	465,031	238,223	532,180	67,149
Administrative & General	92,374	88,189	88,892	38,209	111,339	22,447
Occupancy Cost - Main HQ Building	12,637	13,454	12,750	5,354	13,313	563
	\$551,822	\$548,440	\$566,673	\$281,786	\$656,832	\$90,159
<b>Power &amp; Fuel Transactions</b>						
Salaries & Benefits						
Power Management	\$107,370	\$101,751	\$108,931	\$53,003	\$113,730	\$4,799
Pwr Mgmt Admin Liquidation	8,609	7,099	7,492	3,871	7,734	242
	115,979	108,850	116,423	56,874	121,464	5,041
Administrative & General	26,261	22,198	24,846	10,741	28,250	3,404
Occupancy Cost - Main HQ Building	3,874	3,472	3,880	1,620	3,688	(192)
	\$146,114	\$134,520	\$145,149	\$69,235	\$153,402	\$8,253
<b>Pre-Scheduling</b>						
Salaries & Benefits						
Power Management	\$529,097	\$545,055	\$536,928	\$244,626	\$562,525	\$25,597
Information Systems	17,273	0	32,182	0	18,303	(13,879)
Travel & Staff Development	6,840	0	6,840	0	8,000	1,160
Brokerage Fees	46,800	49,050	46,800	21,375	48,000	1,200
Software	16,800	9,342	16,800	5,305	15,000	(1,800)
Mobile Phone Service	1,600	2,166	1,800	841	2,340	540
Office Supplies	833	20	50	0	65	15
Office Furniture & Equipment	8,957	0	0	0	0	0
Pwr Mgmt Admin Liquidation	50,369	42,254	44,116	22,829	44,489	373
	678,569	647,887	685,516	294,976	698,722	13,206
Administrative & General	145,234	131,142	139,235	60,084	154,260	15,025
Occupancy Cost - Main HQ Bldg	20,500	20,398	20,986	8,803	19,316	(1,670)
	\$844,303	\$799,427	\$845,737	\$363,863	\$872,298	\$26,561

Northern California Power Agency  
Forecasting, Planning, Prescheduling and Trading  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
<b>Power Pool Operations &amp; Settlement Standards</b>						
Salaries & Benefits						
Power Management	\$153,314	\$190,260	\$156,575	\$73,214	\$165,025	\$8,450
Information Systems	142,645	165,783	263,813	77,720	111,814	(151,999)
Mobile Phone Services	2,185	2,216	2,185	990	5,000	2,815
Pwr Mgmt Admin Liquidation	23,905	24,995	29,065	15,058	19,166	(9,899)
	322,049	383,254	451,638	166,982	301,005	(150,633)
Administrative & General	72,002	79,886	96,760	41,713	67,659	(29,101)
Occupancy Cost - Main HQ Bldg	10,703	12,891	15,270	6,402	8,702	(6,568)
	<u>\$404,754</u>	<u>\$476,031</u>	<u>\$563,668</u>	<u>\$215,097</u>	<u>\$377,366</u>	<u>(\$186,302)</u>
<b>Facilities Agreement Administration</b>						
Salaries & Benefits						
Power Management	\$134,155	\$102,764	\$135,861	\$41,547	\$141,941	\$6,080
Pwr Mgmt Admin Liquidation	10,757	7,171	9,345	4,839	9,652	307
	144,912	109,935	145,206	46,386	151,593	6,387
Administrative & General	32,998	23,486	31,202	13,499	35,596	4,394
Occupancy Cost - Main HQ Bldg	4,889	3,798	4,897	2,058	4,682	(215)
	<u>\$182,799</u>	<u>\$137,219</u>	<u>\$181,305</u>	<u>\$61,943</u>	<u>\$191,871</u>	<u>\$10,566</u>

## **INDUSTRY RESTRUCTURING and REGULATORY AFFAIRS**

### **Goals**

Coordinate member positions regarding Industry Restructuring and Market Redesign activities, and development of regulatory filings and advocacy positions at FERC, CAISO and other political and/or regulatory venues. Assess and measure impact of Industry Restructuring and Market Redesign activities to members, generation assets and Agency operations. Act as a representative for the Agency, and maintain contact with a broad array of market participants to develop ways for municipals and other public power entities to effectively operate and cooperate within the electric market environment. Monitor, track and influence activities of public agencies and other industry trade groups. Coordinate and develop material to communicate Industry Restructuring and Market Design activities to pool members and asset owners that may be impacted by rule changes within the CAISO and or other control areas. Formulate and implement regulatory positions, in concert with pool members and asset owners, related to FERC or other filings of which the pool and/or asset owners are a party. Monitor and coordinate impact of CAISO Release Planning activities and market enhancements on NCPA business and operations. Coordinate with NCPA business units, including Power Management, Information Technology and Settlements to test, implement and organize new market functionality. Coordinate with NCPA business units the management of existing and new generating unit technical information; including the addition of new resources to NCPA's portfolio. Assist the Legislative and Regulatory Business Unit in formulating positions and building consensus between and among members and other public entities.

### **Measurement Parameters**

#### **Volume Measures**

- Provide monthly summary of key regulatory filings and issues confronting members
- Prepare, coordinate, schedule and support frequent conference calls and responses on CAISO market related activities on behalf of members
- Prepare, attend and report on CAISO market technical meetings
- Monitor CAISO Release Planning activities and coordinate any required changes/enhancements in NCPA's business process and/or structure with affected NCPA business units
- Provide staff support for monthly pooling committee meetings
- Attend, support and report on monthly CMUA technical committee efforts
- Analyze, coordinate member positions and prepare response to one or more CAISO tariff filings per month
- Coordinate and/or prepare regulatory filings provided to CAISO
- Coordinate with other NCPA business units the management of existing and new generating unit technical information (e.g., CAISO Master File and MARS), and the management of new generator interconnection and integration in the NCPA Scheduling Coordinator portfolio (as it relates to CAISO unit registration and CAISO Master File management)
- Provide technical support to other NCPA business units

### **Efficiency Measures**

- NCPA remains a credible participant within the municipal community and the various industry groups with which it affiliates
- Member interests achieved under CAISO market design:
  - Effective management of CAISO release planning and market enhancements
  - Maximize resources and contracts that count toward resource adequacy
  - Uplifts allocated on a grid wide basis are avoided by maintaining ability to self-provide services
  - MSS principles and features are maintained
  - Ensure asset owners maintain the ability to maximize the value of assets
- Development of NCPA business procedures for incorporating new generation resource in the NCPA Scheduling Coordinator portfolio

## **CONTRACT ADMINISTRATION, INTERCONNECTION SERVICES AND EXTERNAL AFFAIRS**

### **Goals**

Administer, maintain and ensure compliance with all Agency agreements relating to governance, operations or facility ownership; represent and advocate member interests in external arenas such as TANC and Western; and act as the primary staff to support and coordinate activities and studies required through the “ad hoc” or standing committees.

### **Measurement Parameters**

#### **Volume Measures**

- Prepare, attend and report on monthly TANC Contract Committee meetings
- Organize, coordinate and staff on as needed “ad hoc” pooling meetings
- Organize and coordinate regular and ongoing meetings to keep agency agreements updated (Pooling, Facilities, Third Phase, SCPA)
- Organize and coordinate regular and ongoing meetings to keep external agreements updated (MSSA, PG&E IA, EEI, WSPP, Western)
- Prepare, attend and report on quarterly Western Customer meetings
- Prepare, attend and report on as needed “ad hoc” Western meetings
- Prepare, attend and report on Customer O&M Funding meetings
- Prepare, attend and report on EEI and WSPP meetings

#### **Efficiency Measures**

- Member interests coordinated and represented at TANC meetings
- Member interests coordinated and represented at Western meetings
- Member interests coordinated and represented at Customer O&M Funding meetings
- Agency agreements within area of responsibility are maintained
- Draft Staff reports or position papers are provided to members in advance of any “ad hoc” pooling meetings
- All prescribed regulatory filings and contractual obligations are completed in a timely and accurate manner

## **Subprogram Structure and Functional Responsibilities**

- ***Contract Maintenance, Negotiation and Administration and Litigation Support***

This subprogram provides for the staff labor, legal support, and technical expertise to support the development, maintenance, modification and administration of contracts originating or assigned to the Power Management Business Unit. The list of contracts/contract activities includes, but is not limited to:

- Market Power Purchase – Administration and management associated with the purchase or sale of electric power, associated transmission, ancillary services and other related services. This includes maintenance of NCPA's version of the industry standard EEI and WSPP contracts.
- ISO operations oversight – Support to settlements regarding the oversight, administration and management relating to CAISO charge types including grid management, wheeling, imbalance energy, ancillary services and RMR services by and to the CAISO. This includes analysis, interpretation, advocacy and negotiation of matters associated with specific CAISO charges made to the NCPA as a Scheduling Coordinator or as a Metered Subsystem Aggregator (MSSA).
- The maintenance of the Power Management and Administrative Services Agreement (PMASA).
- The maintenance of the NCPA Facilities Agreement and its schedules.
- The maintenance of the NCPA Scheduling Coordinator Program Agreement and its appendices.
- The maintenance of the NCPA Agreement for Construction, Operation and Financing of Combustion Turbine Project Number One (CT 1 Third Phase Agreement).
- The maintenance of the NCPA Agreement for Construction, Operation and Financing of Combustion Turbine Project Number Two-Unit One (CT 2 Third Phase Agreement).
- The maintenance of the NCPA Agreement for Construction, Operation and Financing of the North Fork Stanislaus River Hydroelectric.
- The maintenance of the NCPA Development Project (Calaveras Third Phase Agreement).
- The maintenance of the NCPA Agreement for Construction, Operation and Financing of NCPA Geothermal Generating Unit #2 Project (Geo #1 Third Phase Agreement).
- The maintenance of the NCPA Agreement for Construction, Operation and Financing of Geothermal Generating Project Number 3 (Geo #2 Third Phase Agreement).
- The maintenance of the NCPA Seattle City Light Third Phase Agreement.

- ***TANC Representation and Advocacy***

Representation and advocacy of the NCPA member interests in the Transmission Agency of Northern California (TANC) in regards to the California Oregon Transmission Project (COTP), South of Tesla Principles (SOT) and in any future TANC projects.

- ***Western Representation and Advocacy***

Interface and coordination with Western Area Power Administration (Western) and Bureau of Reclamation (Reclamation) staffs to schedule and assure contract obligations, terms and conditions are met. Coordinate, advise and assist NCPA member Western customers in connection with specific Western operating issues including:

- 2025 Western Marketing Plan and Contract Negotiations
- SMUD\Western Control Area, including ancillary service sales
- California Independent System Operator (CAISO) Market Design

Develop strategies and assist members in negotiating and administering matters affecting the Western resource in fulfillment of NCPA member load obligation. Represent NCPA member interest in negotiation and administering matters affecting the Western resource in fulfillment of the NCPA member load obligation.

- ***Pooling Agreement Coordination and Administration***

This subprogram provides for the operation and coordination of activities associated with the NCPA Power Pool and Pooling Agreement, including the coordination of meetings to address pooling related issues such as operating procedures, cost allocation processes or the development of responses to regulatory change.

Northern California Power Agency  
Industry Restructuring and Regulatory Affairs  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Budget Increase/ (Decrease)
Industry Restructuring & Regulatory Affairs						
Salaries & Benefits	\$275,489	\$249,050	\$261,252	\$114,414	\$270,555	\$9,303
Travel & Staff Development	11,660	539	5,000	538	5,000	0
Legal Services	11,500	0	11,500	0	5,000	(6,500)
Other						
Office Supplies	1,400	0	1,400	0	1,400	0
Copy, Printing and Binding	500	0	500	0	500	0
Books, Tapes and Subscriptions	31,000	30,632	31,000	12,783	31,000	0
Pwr Mgmt Admin Liquidation	26,584	19,551	21,367	11,073	21,316	(51)
	358,133	299,772	332,019	138,808	334,771	2,752
Administrative & General	71,271	63,074	71,281	30,594	79,771	8,490
Occupancy Cost - Main HQ Building	9,409	10,091	11,179	4,687	10,610	(569)
<b>Annual Budget Cost</b>	<b>438,813</b>	<b>372,937</b>	<b>414,479</b>	<b>174,089</b>	<b>425,152</b>	<b>10,673</b>
Less: Third Party Revenue						
Interest Income	2,430	3,271	2,430	1,729	2,430	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$436,383</b>	<b>\$369,666</b>	<b>\$412,049</b>	<b>\$172,360</b>	<b>\$422,722</b>	<b>\$10,673</b>

Northern California Power Agency  
Contract Administration  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
Contract Maint. Negotiation and Administration and Litigation Support	\$844,435	\$702,892	\$678,070	\$356,597	\$707,707	\$29,637
TANC Representation & Advocacy	18,435	31,983	29,604	11,760	30,727	1,123
Western Representation & Advocacy	165,552	105,804	136,198	54,511	145,777	9,579
Pooling Agreement Coordination & Administration	106,201	72,092	109,844	33,804	115,686	5,842
<b>Annual Budget Cost</b>	<b>1,134,623</b>	<b>912,771</b>	<b>953,716</b>	<b>456,672</b>	<b>999,897</b>	<b>46,181</b>
Less: Third Party Revenue						
Interest Income	5,979	8,365	5,979	3,999	5,979	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$1,128,644</b>	<b>\$904,406</b>	<b>\$947,737</b>	<b>\$452,673</b>	<b>\$993,918</b>	<b>\$46,181</b>

Northern California Power Agency  
Contract Administration  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
<b>Contract Maint. Negotiation and Administration and Litigation Support</b>						
Salaries & Benefits	\$568,559	\$475,749	\$462,299	\$275,802	\$478,270	\$15,971
Travel & Staff Development	5,698	584	5,698	456	5,698	0
Legal Services	35,000	37,028	28,000	0	28,000	0
Mobile Phone Services	1,200	668	1,200	293	1,200	0
Office Supplies	1,000	1,339	1,000	0	1,000	0
Copy, Printing and Binding	200	0	200	0	200	0
Books, Tapes and Subscriptions	5,000	5,057	3,000	1,686	1,686	(1,314)
Equipment Repair and Maintenance	1,300	0	1,300	0	1,300	0
Minor Equipment and Tools	200	0	200	0	200	0
Pwr Mgmt Admin Liquidation	49,564	36,309	34,589	17,904	35,195	606
	<u>667,721</u>	<u>556,734</u>	<u>537,486</u>	<u>296,141</u>	<u>552,749</u>	<u>15,263</u>
Administrative & General	153,746	125,217	120,997	52,244	136,359	15,362
Occupancy Cost - Main HQ Building	22,968	20,941	19,587	8,212	18,599	(988)
	<u>\$844,435</u>	<u>\$702,892</u>	<u>\$678,070</u>	<u>\$356,597</u>	<u>\$707,707</u>	<u>\$29,637</u>
<b>TANC Representation &amp; Advocacy</b>						
Salaries & Benefits						
Power Management	\$13,314	\$16,940	\$20,951	\$8,314	\$21,571	\$620
Travel & Staff Development	623	19	623	0	623	0
Copy, Printing and Binding	50	0	50	0	50	0
Books, Tapes and Subscriptions	50	0	50	0	50	0
Pwr Mgmt Admin Liquidation	1,125	1,645	1,491	769	1,516	25
	<u>15,162</u>	<u>25,223</u>	<u>23,165</u>	<u>9,083</u>	<u>23,810</u>	<u>645</u>
Administrative & General	2,904	5,776	5,515	2,296	6,070	555
Occupancy Cost - Main HQ Building	369	984	924	381	847	(77)
	<u>\$18,435</u>	<u>\$31,983</u>	<u>\$29,604</u>	<u>\$11,760</u>	<u>\$30,727</u>	<u>\$1,123</u>

Northern California Power Agency  
Contract Administration  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
<b>Western Representation &amp; Advocacy</b>						
Salaries & Benefits	\$106,330	\$59,381	\$84,319	\$28,463	\$86,762	\$2,443
Travel & Staff Development	6,029	984	4,000	0	4,000	0
Legal Services	2,500	0	2,500	0	5,000	2,500
Other Professional Services	8,700	18,100	8,700	9,300	9,300	600
Mobile Phone Services	0	767	0	314	0	0
Copy, Printing and Binding	100	0	100	0	100	0
Books, Tapes and Subscriptions	100	0	100	0	100	0
Pwr Mgmt Admin Liquidation	9,923	5,528	6,859	3,558	7,158	299
	<u>133,682</u>	<u>84,760</u>	<u>106,578</u>	<u>41,635</u>	<u>112,420</u>	<u>5,842</u>
Administrative & General	27,996	18,114	25,370	11,085	29,227	3,857
Occupancy Cost - Main HQ Building	3,874	2,930	4,250	1,791	4,130	(120)
	<u>\$165,552</u>	<u>\$105,804</u>	<u>\$136,198</u>	<u>\$54,511</u>	<u>\$145,777</u>	<u>\$9,579</u>
<b>Pooling Agreement Coordination &amp; Administration</b>						
Salaries & Benefits	\$74,332	\$52,851	\$77,683	\$20,653	\$80,682	\$2,999
Travel & Staff Development	2,400	0	2,400	0	2,400	0
Pwr Mgmt Admin Liquidation	6,152	3,688	5,508	2,846	5,650	142
	<u>82,884</u>	<u>56,539</u>	<u>85,591</u>	<u>23,499</u>	<u>88,732</u>	<u>3,141</u>
Administrative & General	20,181	13,274	20,742	8,838	23,576	2,834
Occupancy Cost - Main HQ Building	3,136	2,279	3,511	1,467	3,378	(133)
	<u>\$106,201</u>	<u>\$72,092</u>	<u>\$109,844</u>	<u>\$33,804</u>	<u>\$115,686</u>	<u>\$5,842</u>

# **NCPA Green Power Program (NGPP)**

FY 2021

The Green Power Program has been terminated as to new projects, in favor of the standard Facilities Agreement Three Phase Project Development process.

The NGPP was established to allow program participants to jointly pursue eligible renewable resources in the form of Power Purchase Agreements, Project Agreements, or through funding of project development activities that result in Power Purchase Agreements or similar types of agreements that count toward Renewable Portfolio Standard obligations.

The NGPP was structured to provide for funding of annual program administration costs in accordance with initial program participation level percentages with separate funding for project activities, as they develop, on a subscription basis (based on a participant not exercising its opt out rights). The NGPP budget included an allocation of costs associated with staff support provided from the Power Management Business Unit, costs to cover outside professional assistance such as legal and engineering expertise and minor materials, supplies and services necessary to support the project.

Project participants included BART, Healdsburg, Lodi, Lompoc, Palo Alto, Plumas-Sierra REC, and SVP.

Northern California Power Agency  
Green Power Project  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
Green Power Project						
Outside Services						
Other Professional Services	\$2,500	\$0	\$0	\$0	\$0	\$0
Pwr Mgmt Admin Liquidation	200	0	0	0	0	0
	2,700	0	0	0	0	0
Administrative & General	264	0	0	0	0	0
<b>Annual Budget Cost</b>	<b>2,964</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Less: Third Party Revenue						
Interest Income	2,221	1,649	0	967	0	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$743</b>	<b>(\$1,649)</b>	<b>\$0</b>	<b>(\$967)</b>	<b>\$0</b>	<b>\$0</b>

# **Gas Purchase Program (GPP)**

FY 2021

The GPP is a joint action activity under which NCPA is enabled to purchase natural gas supply to meet the program Participants' needs for a period of up to five (5) years forward. GPP Participants included Biggs, Gridley, Healdsburg, Lodi, Lompoc and Ukiah. Staff works independently with GPP Participants to identify a Participant's needs and to procure the required natural gas supply as directed by the Participant. Procurement is performed using Commission approved transaction instruments in accordance with the Natural Gas Program Agreement.

The GPP agreement provides for the obligation of participating members to cover all costs and liabilities incurred through the program, thereby shielding non-participating members from the procurement costs and risks of the program. The GPP program supports Commission policy direction that procurement activities exceeding a month in duration only be undertaken pursuant to approved program agreements such as the GPP, MPP or the Single Member Service Agreement (SMSA).

Northern California Power Agency  
Gas Purchase Program  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
Gas Purchase Program						
Salaries & Benefits	\$57,275	\$48,552	\$58,219	\$23,084	\$60,725	\$2,506
Other						
Allocated Power Management Admin	4,592	3,387	4,004	2,078	4,129	125
	61,867	51,939	62,223	25,162	64,854	2,631
Administrative & General	13,866	11,282	13,124	5,820	14,935	1,811
Occupancy Cost - Main HQ Building	2,048	1,868	2,039	857	1,949	(90)
<b>Annual Budget Cost</b>	<b>77,781</b>	<b>65,089</b>	<b>77,386</b>	<b>31,839</b>	<b>81,738</b>	<b>4,352</b>
Interest Revenue	361	369	361	175	361	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$77,420</b>	<b>\$64,720</b>	<b>\$77,025</b>	<b>\$31,664</b>	<b>\$81,377</b>	<b>\$4,352</b>

# **Market Purchase Program (MPP)**

FY 2021

The Market Purchase Program (MPP) is a joint action activity under which NCPA is enabled to transact energy related products to meet a Participants' needs for a period of up to five (5) years forward. MPP Participants include Alameda, Biggs, BART, Gridley, Healdsburg, Lodi, Lompoc and Ukiah. Staff works independently with each MPP Participant to identify the Participant's needs. Based on such needs assessment, NCPA can then act on behalf of the Participant to purchase and/or sell the required energy and energy related products as directed by the Participant. Transaction activities are performed using Commission approved transaction instrument in accordance with the Amended and Restated Market Purchase Program Agreement.

The MPP agreement provides for the obligation of participating members to cover all costs and liabilities incurred through the program, thereby shielding non-participating members from the procurement costs and risks of the program. The MPP program supports Commission policy direction that procurement activities exceeding a month in duration only be undertaken pursuant to approved program agreements such as the MPP, GPP or the Single Member Service Agreement (SMSA).

The budget includes staff support provided from the Power Management and Administrative Services Business Units, as well as outside legal and financial support for activities like contract review and the establishment of credit programs.

This program is available to all NCPA members.

Northern California Power Agency  
Market Purchase Program  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
Market Purchase Project						
Salaries & Benefits	\$82,119	\$61,821	\$83,325	\$31,606	\$86,823	\$3,498
Other						
Office Supplies	25	0	25	0	25	0
Copy, Printing & Binding	100	0	100	0	100	0
Books, Tapes & Subscriptions	125	0	125	0	125	0
Pwr Mgmt Admin Liquidation	6,604	4,313	5,748	2,989	5,921	173
	88,973	66,134	89,323	34,595	92,994	3,671
Administrative & General	20,070	14,505	18,984	8,116	21,449	2,465
Occupancy Cost - Main HQ Building	2,971	2,407	2,963	1,239	2,796	(167)
<b>Annual Budget Cost</b>	<b>112,014</b>	<b>83,046</b>	<b>111,270</b>	<b>43,950</b>	<b>117,239</b>	<b>5,969</b>
Less: Third Party Revenue						
Interest Income	5,157	2,554	5,157	1,199	5,157	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$106,857</b>	<b>\$80,492</b>	<b>\$106,113</b>	<b>\$42,751</b>	<b>\$112,082</b>	<b>\$5,969</b>

# Fuel Acquisition & Management

FY 2021

## **Gas Acquisition (CT1, CT2)**

Gas for the Combustion Turbine No. 1 Project (CT1) and Combustion Turbine No. 2 Project (STIG or CT2) is procured pursuant to operating procedures contained within the Amended and Restated Facilities Agreement. Funding in this category has been established to cover staff support provided from the Power Management Business Unit, legal expenses, professional expertise and limited staff travel associated with the contracts for gas supply for these two projects and to cover minor materials, supplies and services necessary to support the project.

The costs associated with managing fuel procurement under the Amended and Restated Facilities Agreement are listed here, under the “Management Services” tab of the annual budget and liquidated to the CT1 and CT2 Projects, where cost detail can be found under the “Generation Services” tab of the annual budget.

Power Management staff will be evaluating the gas procurement activities and agreements associated with the CT1 and STIG projects as part of a comprehensive effort to incorporate gas purchases under the Market Purchase Program and to take into account potential procurement activity that will be required to support Lodi Energy Center Operations.

## **Natural Gas Information Program (NGIP) [Pass Through of Costs]**

The NGIP was developed for the limited and exclusive purpose of sharing, disseminating and realizing costs savings associated with shared access to 3<sup>rd</sup> Party expert gas and electricity price and market information/subscriptions and concepts (e.g., LNG, storage, muni-gas, etc.). Electricity Price and Market Information includes reports and subscriptions from CERA, Risk Management Inc. and bi-weekly information made available through the bi-weekly Market Information conference calls.

Northern California Power Agency  
Fuel Acquisition Management  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
Fuel Acquisition Cost (CT1 & CT2)						
Salaries & Benefits						
Pwr Accts Admin	\$31,096	\$50,175	\$31,536	\$23,839	\$32,863	(\$31,536)
Other:						
Copy, Printing & Binding	31	0	0	0	0	0
NG Subscriptions	0	6,234	0	5,970	0	0
Pwr Mgmt Admin Liquidation	2,496	3,936	2,169	1,110	2,235	(2,169)
	33,623	60,345	33,705	30,919	35,098	(33,705)
Administrative & General	3,650	11,613	3,312	1,501	3,579	(3,312)
Occupancy	92	1,736	92	38	0	(92)
	\$37,365	\$73,694	\$37,109	\$32,458	\$38,677	(\$37,109)
Liquidation of Fuel Acquisition to CT1 & CT2	(\$37,365)	(\$73,694)	(\$37,109)	(\$32,458)	(\$38,677)	\$37,109
<b>Net Annual Budget Cost to Participants</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

## **Risk Management**

Risk Management provides oversight in energy wholesale operations and manages insurance risks. It conducts analyses on energy market risk and counterparty credit exposure and provides independent oversight on front office energy procurement transactions, ensuring compliance with NCPA adopted risk management policy and procedures. In addition, Risk Management also manages the Agency's property and liability insurance programs, commercial compliance program, coordinates the enterprise risk management program, etc.

Current budget designates one person to fulfill desired job functions. Risk management includes: market risk management, counterparty credit risk management, insurance program management, commercial compliance, and enterprise risk management.

### **Market Risk Management Program Functions & Goals**

#### **1. *Assess and manage NCPA portfolio market exposure***

Develop, update and maintain models and tools, gather and process market data, and conduct quantitative, financial and statistical analyses on:

- a. Portfolio risk exposures (cost Value at Risk) due to market price volatilities of the underlying commodities (gas and power);
- b. Mark to market position of term transactions and assess and monitor counterparty credit risk exposures; and
- c. Gas and power price movements, distribution and volatilities, and support front office energy procurement activities.

#### **2. *Conduct Risk Oversight Committee (ROC) and Risk Management Committee (RMC) meetings and activities***

Prepare and present risk management reports to ROC, upper management and member cities. Reporting package includes:

- a. Open position for the Pool and by individual member, on-peak and off-peak;
- b. Portfolio exposure to market price volatility (open position Cost Value at Risk);
- c. Mark to Market position of term contracts/transactions;
- d. Counterparty credit exposure, limits, and margin call status;
- e. Market analytics and update on gas & power price trends, distribution and volatilities; and
- f. Compliance review and exception (if any) reports.

#### **3. *Monitor economy and energy market development***

- a. Research and analyze macro and sector market events and development, including global and geopolitical events and development; and
- b. Analyze trends and driving factors of the energy commodity market movements.

#### **4. Update policy/procedures and ensure compliance**

- a. Develop, update, and implement energy risk management policies, procedures, and communications;
- b. Ensure compliance - provide independent oversight on wholesale energy operations, review deals and RFPs, ensure compliance with NCPA adopted policy & procedures and report on exceptions. Coordinate annual compliance audit.

#### **Counterparty Credit Risk Management Program Functions & Goals (Counter-party Credit Review & Analysis)**

Counterparty credit exposure changes as contract mark to market position changes resulting from energy market price volatility. NCPA energy risk management program actively manages counterparty credit exposure via timely credit evaluation & update and on-going event monitoring. The Agency also subscribes to Moody's KMV Credit Edge tool, which provides advance alert if any counterparty credit standing deteriorates and default probability increases. Specific functions and goals under this category include:

1. Timely evaluate counterparty credit worthiness, monitor market and credit events;
2. Monitor counterparty credit events;
3. Review, approve and recommend counterparty credit limits based on evaluations;
4. Ensure proper credit support from counterparties;
5. Negotiate and evaluate enabling (master) agreements with counterparties, ensuring compliance with NCPA credit risk management policy and regulations;
6. Review deals and RFPs, conduct Value at Risk analysis and assess potential credit exposures by counterparties; and
7. Update and implement counterparty credit risk management policy and procedures, ensure compliance and report on exceptions.

#### **Insurance Program Management**

1. Manage and market property & casualty insurance programs;
2. Review insurance proposals and prepare supporting documents;
3. File new and renewal insurance applications, evaluate quotes on premium, coverage and extensions;
4. Facilitate premium and exposure audits, settle disputes; and
5. Manage and settle claims.

#### **Commercial Compliance and Enterprise Risk Management**

1. Organize periodical training and annual certification;
2. Coordinate periodic compliance auditing; and
3. Coordinate outside parties and consultants in developing an ERM program for the Agency.

Northern California Power Agency  
Risk Management  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
ROC, IROC Meetings & Activities	\$111,318	\$57,038	\$51,651	\$17,468	\$52,118	\$467
Counter-party Credit Review & Analysis	148,267	148,756	160,093	45,627	177,727	17,634
<b>Annual Budget Cost</b>	<b>259,585</b>	<b>205,794</b>	<b>211,744</b>	<b>63,095</b>	<b>229,845</b>	<b>18,101</b>
Less: Third Party Revenue						
Interest Income	4,708	6,539	4,708	4,198	4,708	0
Enterprise Application Costs Sharing	0	44,496	0	0	0	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$254,877</b>	<b>\$154,759</b>	<b>\$207,036</b>	<b>\$58,897</b>	<b>\$225,137</b>	<b>\$18,101</b>

Northern California Power Agency  
Risk Management  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	Proposed FY 2021 Budget	Increase/ (Decrease)
<b>ROC, IROC Meetings &amp; Activities</b>						
Salaries & Benefits						
Risk Management	\$60,618	\$55,395	\$61,345	\$25,457	\$63,602	\$2,257
Power Accounts Administration	0	67	0	0	0	0
Administrative Services	78,298	0	10,536	0	10,920	384
	138,916	55,462	71,881	25,457	74,522	2,641
Travel & Staff Development	9,000	1,912	8,000	510	4,500	(3,500)
Legal Services	5,000	0	5,000	0	5,000	0
Other Professional Services	7,500	0	0	0	0	0
Office Supplies	0	51	0	0	0	0
Commercial Compliance Training	25,000	39,153	0	0	0	0
	185,416	96,578	84,881	25,967	84,022	(859)
Administrative & General	33,092	15,475	16,082	6,850	17,944	1,862
Occupancy Cost - Main HQ Building	4,128	2,024	2,340	991	2,270	(70)
	222,636	114,077	103,303	33,808	104,236	933
Allocated ROC, IROC Meetings & Activities to A&G	(111,318)	(57,039)	(51,652)	(16,340)	(52,118)	(466)
	<u>\$111,318</u>	<u>\$57,038</u>	<u>\$51,651</u>	<u>\$17,468</u>	<u>\$52,118</u>	<u>\$467</u>
<b>Counter-party Credit Review &amp; Analysis</b>						
Salaries & Benefits						
Energy Risk Management	\$60,618	\$70,910	\$61,345	\$34,736	\$63,602	\$2,257
Information Systems	4,561	0	18,633	0	24,522	5,889
	65,179	70,910	79,978	34,736	88,124	8,146
Risk Management Enterprise Application	60,000	55,621	55,000	0	60,000	5,000
	125,179	126,531	134,978	34,736	148,124	13,146
Administrative & General	20,784	19,752	22,307	9,710	26,796	4,489
Occupancy Cost - Main HQ Building	2,304	2,473	2,808	1,181	2,807	(1)
	<u>\$148,267</u>	<u>\$148,756</u>	<u>\$160,093</u>	<u>\$45,627</u>	<u>\$177,727</u>	<u>\$17,634</u>

## **Power Settlements**

### **Goals**

The major goals of the Power Settlement department are to:

- Ensure data quality through validation and verification processes
- Produce accurate and timely billings to members in a transparent manner
- Perform contract administration requirements

### **Program Structure and Functional Responsibilities**

The following three functional responsibilities describe the major settlement activities performed by the Power Settlements department in support of its major goals.

### **Billing, Balancing & Settlements**

The Billing, Balancing & Settlements category is primarily composed of the following three settlement business activities: (1) Settlement Business Design and Management; (2) All Resources Bill (ARB) Administration; and (3) Contract Administration.

#### **1. Settlement Business Design and Management**

Work with Information Services to develop, test and accept updated software changes pursuant to evolving business requirements.

#### **2. All Resources Bill (ARB) Administration**

The NCPA ARB is a comprehensive, integrated monthly invoice related to the accounting and settlements for:

- Jointly owned projects
- Budgeted NCPA Project debt costs
- NCPA administrative costs
- Western Area Power Administration CVP and Base Resource costs
- NCPA and member Market Purchases and Sales
- Natural Gas fuel costs
- Verified and approved CAISO amounts

In addition, the ARB administration provides members with all necessary bill determinant detail support data and variance reports.

### **3. Contract Administration**

This business activity provides for the support of new or modified NCPA contracts among its members, including:

- Maintain Appendix B of the Scheduling Coordinator Program Agreement (SCPA) with updated CAISO settlement charge codes,
- Monitor SCPA Balancing Account requirements,
- Maintain requirements related to terms of Pooling Agreement,
- Monitor CAISO credit collateral requirements based on NCPA members' Unsecured Credit Limits and Estimated Aggregate Liability amounts, and
- Perform accounting and settlements in conformance with bilateral agreements among NCPA members for energy and capacity transactions.

#### **Deal Control Validation and Monitoring**

As a standard control activity, NCPA's Power Settlements staff each month validates and reconciles all bilateral energy purchases and sales transactions with NCPA's counter parties at the conclusion of each month for contracted quantities, terms, and prices. In addition, Power Settlement staff accounts for the financial settlement of any energy layoffs and book-outs that may result from energy curtailments or derated transmission line capacity.

#### **CAISO Data Validation and Monitoring**

This business function provides two integrated business activities. The first activity ensures the validation and verification of CAISO settlement bill determinants and settlement amounts received by the CAISO that are contained within daily CAISO settlement statements and invoices for each billing period.

Settlement verification is performed through comparison of CAISO settlement amounts and estimated NCPA amounts for each applicable settlement charge code. This validation activity further encompasses the business processes associated with the identification, research and resolution of disputed CAISO settlement amounts.

The second business activity provides for the allocation of CAISO Scheduling Coordinator charges and revenues to NCPA's Operating Entities, Energy Service Providers (ESP) and allocation to Pool members in conformance with Appendix B of the SCPA.

Northern California Power Agency  
Settlements  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
Deal Control Validation & Monitoring	\$360,804	\$192,321	\$397,783	\$165,360	\$349,266	(\$48,517)
ISO Data Validation & Monitoring	580,588	326,755	582,133	220,616	574,380	(7,753)
<b>Annual Budget Cost</b>	<b>941,392</b>	<b>519,076</b>	<b>979,916</b>	<b>385,976</b>	<b>923,646</b>	<b>(56,270)</b>
Less: Third Party Revenue						
Interest Income	5,156	6,686	5,156	4,986	5,156	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$936,236</b>	<b>\$512,390</b>	<b>\$974,760</b>	<b>\$380,990</b>	<b>\$918,490</b>	<b>(56,270)</b>

Northern California Power Agency  
Settlements  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	<b>Proposed FY 2021 Budget</b>	Increase/ (Decrease)
<b>Deal Control Validation &amp; Monitoring</b>						
Salaries & Benefits						
Information Systems	\$97,680	\$64,433	\$113,587	\$66,253	\$82,061	(\$31,526)
Power Accounts Administration	171,381	82,912	193,209	59,905	178,317	(14,892)
	269,061	147,345	306,796	126,158	260,378	(46,418)
Administrative & General	77,824	37,893	77,414	33,505	76,821	(593)
Occupancy Cost - Main HQ Building	13,919	7,083	13,573	5,697	12,067	(1,506)
	<u>\$360,804</u>	<u>\$192,321</u>	<u>\$397,783</u>	<u>\$165,360</u>	<u>\$349,266</u>	<u>(\$48,517)</u>
<b>ISO Data Validation &amp; Monitoring</b>						
Salaries & Benefits						
Information Systems	\$61,612	\$0	\$55,717	\$0	\$41,813	(\$13,904)
Power Accounts Administration	365,199	240,490	372,583	154,277	374,088	1,505
	426,811	240,490	428,300	154,277	415,901	(12,399)
Travel & Staff Development	6,695	0	6,695	0	0	(6,695)
Software Licenses	0	0	0	3,371	3,400	3,400
	433,506	240,490	434,995	157,648	419,301	(15,694)
Administrative & General	124,812	71,874	123,923	53,232	133,270	9,347
Occupancy Cost - Main HQ Building	22,270	14,391	23,215	9,736	21,809	(1,406)
	<u>\$580,588</u>	<u>\$326,755</u>	<u>\$582,133</u>	<u>\$220,616</u>	<u>\$574,380</u>	<u>(\$7,753)</u>

Northern California Power Agency  
Integrated System Support  
Comparative Annual Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December 31	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
Integrated System Support						
Outside Services						
Legal Services						
Hardware Maintenance	\$30,000	\$4,780	\$30,000	\$0	\$0	(\$30,000)
Software Maintenance	67,500	80,690	67,500	0	125,000	57,500
Other						
Data Supplies	5,000	0	5,000	0	0	(5,000)
Computer Hardware	125,000	2,878	100,000	5,693	25,000	(75,000)
Hardware Contracts	10,000	0	10,000	0	80,000	70,000
Communication Services - Intranet	11,000	9,750	11,000	4,063	11,000	0
Records Retention Software Solution	0	43,797	0	0	0	0
Emergency Generator Fuel/Maint.	0	0	0	0	304	304
Regulatory Fees & Permits	0	0	0	0	133	133
	248,500	141,895	223,500	9,756	241,437	17,937
Administrative & General	24,350	12,323	19,661	8,216	24,618	4,957
<b>Annual Budget Cost</b>	<b>272,850</b>	<b>154,218</b>	<b>243,161</b>	<b>17,972</b>	<b>266,055</b>	<b>22,894</b>
Less: Third Party Revenue						
Interest Income	3,690	3,368	3,690	2,327	3,690	0
<b>Net Annual Budget Cost to Participants</b>	<b>\$269,160</b>	<b>\$150,850</b>	<b>\$239,471</b>	<b>\$15,645</b>	<b>\$262,365</b>	<b>\$22,894</b>

## **NORTHERN CALIFORNIA POWER AGENCY**

### **Participant Pass-Through Costs**

Participant Pass-Through Costs are miscellaneous energy related costs of one or more participants that have a cost distribution separate from the distribution pool of regular NCPA programs. Costs in this category include, but are not limited to membership dues in various energy related organizations, subscriptions to tactical market data, transmission services, including contractual transmission service costs through Transmission Agency of Northern California – South of Tesla (TANC-SOT) covering service through PG&E Tesla Substation to Edison Midway Substation, Biggs 60kV high voltage facility charges from PG&E for Biggs upgrade to 60kV delivery, Bay Area Transmission (BAMx) and other transmission consulting agreements, distribution costs, including metering agreements for services, repair, or replacement of meters by an outside service provider, Customer Programs Projects costs for contractually shared projects mutually beneficial to a number of participants, WREGIS certificate transfer fees, and labor related costs associated with the internship program.

NORTHERN CALIFORNIA POWER AGENCY  
Participant Pass Through Costs  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
<b>Dues:</b>						
APPA	\$302,565	\$305,302	\$314,461	\$323,345	\$333,045	\$18,584
SEPA	19,000	19,000	19,000	19,000	19,000	0
DEED	24,051	47,753	24,289	24,467	24,661	372
CEE	10,000	11,288	10,000	0	10,000	0
Alliance to Save Energy Dues	0	0	0	0	2,500	2,500
	355,616	383,343	367,750	366,812	389,206	21,456
<b>Subscriptions:</b>						
Tactical Mkt Info - Platts	10,500	8,368	10,500	9,164	10,500	0
Tactical Mkt Info - NGI	7,500	7,125	7,500	7,481	7,500	0
	18,000	15,493	18,000	16,645	18,000	0
<b>Transmission Services:</b>						
TANC - SOT	173,354	84,981	89,000	22,255	89,000	0
Bay Area Transmission (BAMx)	657,500	483,704	657,500	160,429	657,500	0
BART Transmission Consulting	180,000	155,020	180,000	38,530	180,000	0
60 Kv Facilities Charges (Biggs)	4,700	4,663	4,700	2,331	4,700	0
	1,015,554	728,368	931,200	223,545	931,200	0
<b>Distribution:</b>						
Meter Maintenance General - TriMark	120,000	123,588	142,000	36,310	142,000	0
	120,000	123,588	142,000	36,310	142,000	0
<b>WREGIS:</b>						
Certificate Transfer Fees	5,000	5,822	5,000	3,832	5,000	0
Certificate Transfer Fees - WAPA	5,000	2,085	5,000	1,192	5,000	0
	10,000	7,907	10,000	5,024	10,000	0
<b>Member Services Projects:</b>						
Public Benefits Database	0	26,078	0	0	0	0
Energy Efficiency Reporting Tool	100,000	80,148	41,497	60,312	70,235	28,738
Flex Lab R&D	0	(750)	0	0	0	0
Energy Efficiency Target	0	0	0	0	30,000	30,000
More Than Smart Workgroup	0	0	50,000	0	0	(50,000)
	100,000	105,476	91,497	60,312	100,235	8,738
<b>Annual Budget Cost</b>	<b>\$1,619,170</b>	<b>\$1,364,175</b>	<b>\$1,560,447</b>	<b>\$708,648</b>	<b>\$1,590,641</b>	<b>\$30,194</b>

## Support Services

Support Services are available to NCPA participants as well as to outside agencies and provide a variety of services including Training Services, Vendor Services, and Other Support Services. Training is available on a variety of subjects by qualified instructors enhancing the ability of agencies to hire and maintain qualified staff by providing technical and administrative training specific to the power industry.

Vendor services provide for sharing contracted services of vendors who deliver similar services across agencies. This allows for savings to the recipient agency who would otherwise recognize the cost of negotiating and securing a contract.

Other Support Services include, but are not limited to contracted agreements with other agencies to share the cost of various projects, fee based services provided by NCPA Engineers or other NCPA professionals to support another agency's needs, and the annual intern tour.

Costs associated with the Support Services programs are passed through to the recipient of the services.

NORTHERN CALIFORNIA POWER AGENCY  
Support Services  
Comparative Draft Budget Report

	FY 2019 Budget	FY 2019 Actual	FY 2020 Budget	FY 2020 Actual Through December, 2019	Proposed FY 2021 Budget	Budget Increase/ (Decrease)
<b>Support Services</b>						
Salaries & Benefits	\$42,316	\$0	\$43,685	\$32,041	\$42,235	(\$1,450)
Postage & Courier Services	-	-	-	\$160	-	-
Training Services	0	13,840	0	770	0	0
Vendor Services	0	849,251	0	629,359	0	0
Vendor Shared Services - SCPPA		23,881				
Other Support Services	\$0	\$6,401	\$0	\$5,797	\$0	\$0
<b>Annual Budget Cost</b>	<b>42,316</b>	<b>893,373</b>	<b>43,685</b>	<b>668,127</b>	<b>42,235</b>	<b>(1,450)</b>
Less: NCPA Staff Development				(4,798)		
Less: Actual Billed	(42,316)	(893,373)	(43,685)	(588,796)	(42,235)	1,450
Unfunded / (Excess)	\$0	\$0	\$0	\$74,533	\$0	\$0

Northern California Power Agency  
Grand Total Full-Time Employee Staffing by Business Unit  
FY 2020-2021 Budget

**BUSINESS UNITS**

**GENERATION SERVICES**

**POWER MANAGEMENT**

**LEGISLATIVE & REGULATORY**

**ADMINISTRATIVE & GENERAL**

**GRAND TOTAL**

FY 2019-2020 Budget			FY 2020-2021 Budget	
On Board (A)	Open (B)	Total	Change (C)	Total
87.00	4.00	91.00	-	<b>91.00</b>
25.00	-	25.00	1.00	<b>26.00</b>
6.75	-	6.75	-	<b>6.75</b>
38.25	4.00	42.25	3.00	<b>45.25</b>
157.00	8.00	165.00	4.00	<b>169.00</b>

Note = A: Number of full-time employees planned as of 7/1/19. Excludes announced retirements and part-time casual employees (See Appendix on Casual Employees).

B: Budgeted positions that are currently unfilled.

C: Net change in forecast number of positions.

Northern California Power Agency  
Casual Employee Staffing by Business Unit  
FY 2020-2021 Budget

**Business Unit**  
**Casual Employees Equivalent**  
**Generation Services**  
**Power Management**  
**Legislative & Regulatory**  
**Administrative & General**  
Total

FY 2019-2020 Budget		
On Board	Open	Total
1.23		1.23
		-
		-
3.00		3.00
4.23	-	4.23

FY 2020-2021 Budget	
Change	Total
	1.23
	-
	-
(2.00)	1.00
(2.00)	2.23

# NORTHERN CALIFORNIA POWER AGENCY

## Summary of Position Changes

FY 2020-2021

### New Changes:

Add	1.00	SCALD	Lead Dispatcher
Add	1.00	Information Services	Computer Technology Analyst II/III (DBA)
Add	1.00	Information Services	Cyber Security Compliance Analyst III/IV
Add	1.00	Information Services	Help Desk Technician
Delete	-0.50	Information Services	Student Assistant (SCADA Support)
Delete	-0.50	Information Services	Student Assistant
Delete	-0.50	Information Services	Student Assistant
Delete	-0.50	Information Services	Student Assistant
	<u>2.00</u>	Total	
Reclass	0.00	Accounting and Finance	Accountant Analyst III (19) to Assistant Controller (23)
Reclass	0.00	General Counsel	Administrative/Office Assistant III (13) to Executive Assistant (16)
Reclass	0.00	Information Services	Sharepoint Administrator (18) to Computer Technology Analyst III (21)
Reclass	0.00	Information Services	Power Settlements Analyst III (20) to Computer Technology Analyst III (21)
Reclass	0.00	Geothermal	Geologist IV (23) to Engineer IV (23) (Org 630)
Reclass	0.00	Generation Services	Supervisor III, Engineering (27) to Supervisor III, Regulatory/Environmental Compliance (27)

NORTHERN CALIFORNIA POWER AGENCY  
ADMINISTRATIVE GENERAL WAGE STRUCTURE  
Effective December 20, 2020

GRADE	JOB CLASSIFICATION/JOB FAMILY	MINIMUM		CONTROL POINT		CTRL PT PLUS 15%	
		ANNUAL	HOURLY	ANNUAL	HOURLY	ANNUAL	HOURLY
15	<sup>1</sup> ACCOUNTANT/ANALYST I	69,784	33.55	87,214	41.93	100,298	48.22
17	<sup>1</sup> ACCOUNTANT/ANALYST II	80,642	38.77	100,797	48.46	115,918	55.73
19	<sup>1</sup> ACCOUNTANT/ANALYST III	93,184	44.80	116,480	56.00	133,952	64.40
9	<sup>1</sup> ACCOUNTING CLERK I	45,219	21.74	56,514	27.17	65,000	31.25
11	<sup>1</sup> ACCOUNTING CLERK II	52,250	25.12	65,312	31.40	75,109	36.11
13	<sup>1</sup> ACCOUNTING CLERK III	60,382	29.03	75,483	36.29	86,798	41.73
9	<sup>1</sup> ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR I	45,219	21.74	56,514	27.17	65,000	31.25
11	<sup>1</sup> ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR II	52,250	25.12	65,312	31.40	75,109	36.11
13	<sup>1</sup> ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR III	60,382	29.03	75,483	36.29	86,798	41.73
30	<sup>1</sup> AGM I/SENIOR DIRECTOR (E.g. Business Development)	206,461	99.26	258,086	124.08	296,795	142.69
31	<sup>1</sup> AGM II (E.g. Power Mgmt, Generation, Leg & Reg, CFO/Admin)	221,957	106.71	277,430	133.38	319,051	153.39
32	<sup>1</sup> AGM III	238,597	114.71	298,251	143.39	342,971	164.89
23	<sup>1</sup> ASSISTANT CONTROLLER	124,446	59.83	155,563	74.79	178,901	86.01
25	<sup>1</sup> ASSISTANT MANAGER: INFORMATION SERVICES	143,811	69.14	179,774	86.43	206,731	99.39
6E	<sup>1</sup> ASSISTANT, STUDENT I	28,038	13.48	35,048	16.85	40,310	19.38
6F	<sup>1</sup> ASSISTANT, STUDENT II	34,819	16.74	43,534	20.93	50,066	24.07
6G	<sup>1</sup> ASSISTANT, STUDENT III	43,285	20.81	54,101	26.01	62,234	29.92
6H	<sup>1</sup> ASSISTANT, STUDENT IV	50,003	24.04	62,504	30.05	71,885	34.56
14	<sup>1</sup> COMPUTER TECHNOLOGY ANALYST	64,917	31.21	81,141	39.01	93,309	44.86
17	<sup>1</sup> COMPUTER TECHNOLOGY ANALYST I	80,642	38.77	100,797	48.46	115,918	55.73
19	<sup>1</sup> COMPUTER TECHNOLOGY ANALYST II	93,184	44.80	116,480	56.00	133,952	64.40
21	<sup>1</sup> COMPUTER TECHNOLOGY ANALYST III	107,682	51.77	134,618	64.72	154,794	74.42
23	<sup>1</sup> COMPUTER TECHNOLOGY ANALYST IV	124,446	59.83	155,563	74.79	178,901	86.01
20	<sup>1</sup> ENERGY RESOURCE ANALYST III	100,173	48.16	125,216	60.20	143,998	69.23
16	<sup>1</sup> ENERGY RESOURCE ANALYST I	75,005	36.06	93,766	45.08	107,827	51.84
18	<sup>1</sup> ENERGY RESOURCE ANALYST II	86,694	41.68	108,347	52.09	124,613	59.91
23	<sup>1</sup> ENERGY RESOURCE ANALYST IV	124,446	59.83	155,563	74.79	178,901	86.01
16	<sup>1</sup> ENGINEER I	75,005	36.06	93,766	45.08	107,827	51.84
18	<sup>1</sup> ENGINEER II	86,694	41.68	108,347	52.09	124,613	59.91
20	<sup>1</sup> ENGINEER III	100,173	48.16	125,216	60.20	143,998	69.23
23	<sup>1</sup> ENGINEER IV	124,446	59.83	155,563	74.79	178,901	86.01
24	<sup>1</sup> ENGINEER V: SUPERVISING /PLANT	133,786	64.32	167,232	80.40	192,317	92.46
20	<sup>1</sup> ENVIRONMENTAL, HEALTH & SAFETY SPECIALIST	100,173	48.16	125,216	60.20	143,998	69.23
16	<sup>1</sup> EXECUTIVE ASSISTANT	75,005	36.06	93,766	45.08	107,827	51.84
32	<sup>1</sup> GENERAL COUNSEL	238,597	114.71	298,251	143.39	342,971	164.89
36	<sup>1</sup> GENERAL MANAGER	318,635	153.19	398,299	191.49	458,037	220.21
16	<sup>1</sup> GEOLOGIST I	75,005	36.06	93,766	45.08	107,827	51.84
18	<sup>1</sup> GEOLOGIST II	86,694	41.68	108,347	52.09	124,613	59.91
20	<sup>1</sup> GEOLOGIST III	100,173	48.16	125,216	60.20	143,998	69.23
23	<sup>1</sup> GEOLOGIST IV	124,446	59.83	155,563	74.79	178,901	86.01
24	<sup>1</sup> GEOLOGIST V	133,786	64.32	167,232	80.40	192,317	92.46
16	<sup>1</sup> GOVERNMENT RELATIONS REPRESENTATIVE I	75,005	36.06	93,766	45.08	107,827	51.84
18	<sup>1</sup> GOVERNMENT RELATIONS REPRESENTATIVE II	86,694	41.68	108,347	52.09	124,613	59.91
20	<sup>1</sup> GOVERNMENT RELATIONS REPRESENTATIVE III	100,173	48.16	125,216	60.20	143,998	69.23
22	<sup>1</sup> GOVERNMENT RELATIONS REPRESENTATIVE IV	115,773	55.66	144,706	69.57	166,421	80.01
16	<sup>1</sup> HUMAN RESOURCES ANALYST I	75,005	36.06	93,766	45.08	107,827	51.84
18	<sup>1</sup> HUMAN RESOURCES ANALYST II	86,694	41.68	108,347	52.09	124,613	59.91
20	<sup>1</sup> HUMAN RESOURCES ANALYST III	100,173	48.16	125,216	60.20	143,998	69.23
13	<sup>1</sup> HUMAN RESOURCES ASSISTANT	60,382	29.03	75,483	36.29	86,798	41.73
27	<sup>1</sup> HUMAN RESOURCES DIRECTOR	166,192	79.90	207,750	99.88	238,909	114.86
25	<sup>1</sup> HUMAN RESOURCES MANAGER	143,811	69.14	179,774	86.43	206,731	99.39
13	<sup>1</sup> LEGISLATIVE PROGRAM ASSISTANT	60,382	29.03	75,483	36.29	86,798	41.73
27	<sup>1</sup> MANAGER, INFORMATION SERVICES	166,192	79.90	207,750	99.88	238,909	114.86
27	<sup>1</sup> MANAGER, INFORMATION SERVICES & POWER SETTLEMENTS	166,192	79.90	207,750	99.88	238,909	114.86
29	<sup>1</sup> MANAGER, PLANT	192,067	92.34	240,074	115.42	276,078	132.73

NORTHERN CALIFORNIA POWER AGENCY  
ADMINISTRATIVE GENERAL WAGE STRUCTURE  
Effective December 20, 2020

GRADE		JOB CLASSIFICATION/JOB FAMILY	MINIMUM		CONTROL POINT		CTRL PT PLUS 15%	
			ANNUAL	HOURLY	ANNUAL	HOURLY	ANNUAL	HOURLY
25	<sup>1</sup>	MANAGER, REGULATORY PROGRAM	143,811	69.14	179,774	86.43	206,731	99.39
26	<sup>1</sup>	MANAGER, RELIABILITY COMPLIANCE	154,606	74.33	193,253	92.91	222,227	106.84
17	<sup>1</sup>	MATERIALS/WAREHOUSE COORDINATOR I	80,642	38.77	100,797	48.46	115,918	55.73
19	<sup>1</sup>	MATERIALS/WAREHOUSE COORDINATOR II	93,184	44.80	116,480	56.00	133,952	64.40
7	<sup>1</sup>	OFFICE ASSISTANT I	39,125	18.81	48,901	23.51	56,243	27.04
9	<sup>1</sup>	OFFICE ASSISTANT II	45,219	21.74	56,514	27.17	65,000	31.25
16	<sup>1</sup>	POWER SETTLEMENTS ANALYST I	75,005	36.06	93,766	45.08	107,827	51.84
18	<sup>1</sup>	POWER SETTLEMENTS ANALYST II	86,694	41.68	108,347	52.09	124,613	59.91
20	<sup>1</sup>	POWER SETTLEMENTS ANALYST III	100,173	48.16	125,216	60.20	143,998	69.23
25	<sup>1</sup>	POWER SETTLEMENTS MANAGER	143,811	69.14	179,774	86.43	206,731	99.39
23	<sup>1</sup>	SCHEDULER/PLANNER, POWER	124,446	59.83	155,563	74.79	178,901	86.01
23	<sup>1</sup>	SENIOR COMPUTER TECH. ANALYST, POWER (E.g. BILLING)	124,446	59.83	155,563	74.79	178,901	86.01
18	<sup>1</sup>	SHAREPOINT ADMINISTRATOR	86,694	41.68	108,347	52.09	124,613	59.91
4	<sup>1</sup>	STUDENT HELPER (OFFICE/PLANT)	31,491	15.14	39,374	18.93	45,282	21.77
27	<sup>1</sup>	SUPERINTENDENT, GENERATION RESOURCES	166,192	79.90	207,750	99.88	238,909	114.86
22	<sup>1</sup>	SUPERVISOR I, POWER SETTLEMENTS	115,773	55.66	144,706	69.57	166,421	80.01
20	<sup>1</sup>	SUPERVISOR I, (CHEMICAL, GENERAL SERVICES)	100,173	48.16	125,216	60.20	143,998	69.23
24	<sup>1</sup>	SUPERVISOR II, (PLANT, ENERGY RISK, ENGINEERING)	133,786	64.32	167,232	80.40	192,317	92.46
27	<sup>1</sup>	SUPERVISOR III, (POWER MGT., COORD. OP, REG/ENV COMP, ENGRN)	166,192	79.90	207,750	99.88	238,909	114.86
27	<sup>1</sup>	TREASURER-CONTROLLER	166,192	79.90	207,750	99.88	238,909	114.86
HEA	<sup>2</sup>	HYDRO TECH APPRENTICE	73,029	35.11	99,819	47.99		
HEA	<sup>2</sup>	HYDRO TECH	107,806	51.83	139,485	67.06		
HEA	<sup>2</sup>	HYDRO TECH - DESIGNATED SKILLS	149,531	71.89	149,531	71.89		
HEA	<sup>2</sup>	HYDRO TECH OPERATOR	146,494	70.43	146,494	70.43		
HEA	<sup>2</sup>	HYDRO TECH OPERATOR - DESIGNATED SKILLS	156,998	75.48	156,998	75.48		
IBEW	<sup>2</sup>	CT SPECIALIST I - VI	102,253	49.16	152,381	73.26		
IBEW	<sup>2</sup>	CT SPECIALIST - LEAD	149,198	71.73	159,994	76.92		
IBEW	<sup>2</sup>	CT SPECIALIST I - V (OPERATORS)	104,666	50.32	145,475	69.94		
IBEW	<sup>2</sup>	CT SPECIALIST I - V (OPERATORS) LEAD	152,755	73.44	152,672	73.40		
IBEW	<sup>2</sup>	MECHANIC OPERATOR I - V	102,253	49.16	133,661	64.26		
IBEW	<sup>2</sup>	MECHANIC OPERATOR - LEAD	140,338	67.47	140,338	67.47		
IBEW	<sup>2</sup>	OPERATOR TECHNICIAN I - V	104,666	50.32	140,421	67.51		
IBEW	<sup>2</sup>	OPERATOR TECHNICIAN - LEAD	147,451	70.89	147,451	70.89		
IBEW	<sup>2</sup>	STOREKEEPER I - V	69,326	33.33	83,158	39.98		
IBEW	<sup>2</sup>	TECHNICIAN CHEMICAL/PERFORMANCE	126,547	60.84	126,547	60.84		
IBEW	<sup>2</sup>	TECHNICIAN OPERATOR I - VI	102,253	49.16	151,757	72.96		
IBEW	<sup>2</sup>	TECHNICIAN OPERATOR - LEAD	148,554	71.42	159,349	76.61		
	<sup>3</sup>	SCHEDULE COORDINATOR I	73,528	35.35	98,197	47.21		
	<sup>3</sup>	SCHEDULE COORDINATOR II	103,355	49.69	119,662	57.53		
	<sup>3</sup>	SCHEDULE COORDINATOR III	125,299	60.24	144,810	69.62		
	<sup>3</sup>	SYSTEM DISPATCHER	114,192	54.90	159,806	76.83		
	<sup>3</sup>	SYSTEM DISPATCHER, LEAD	125,299	60.24	167,794	80.67		

Page 2 of 2

Note <sup>1</sup> Non-union employees whose salaries exceed the control may be granted a lump sum merit increase which is not added to base pay.

Note <sup>2</sup> IBEW = International Brotherhood of Electrical Workers  
HEA = Hydroelectric Employees Association  
These are union classifications subject to the Memorandum of Understanding and overtime, shift differential, relief premium, upgrade and travel pay may be added to base pay when appropriate.

Note <sup>3</sup> Schedule Coordinators and Dispatchers receive overtime, relief pay in addition to step increases.

NORTHERN CALIFORNIA POWER AGENCY  
FY 2021 BUDGET  
DIRECT LABOR AND RELATED COSTS

ITEM	EXPLANATION	RATE	FORMULAE FOR BUDGET
<b>TOTAL COMPENSATION</b>			
Salaries/Wages	Projected actual salary at June 30 of each fiscal year	Individual hourly rate 2,080 work hours/year	Hourly rate x 2,080 hours
GSA (General Salary Adjustment) and Merit		Unrepresented Employees	3.0% No COLA or step increases; Salary adjustments are for merit, promotions, upgrades, training and certifications etc. Merit only for high performing staff. In accordance with approved merit plan.
		IBEW - Power Systems and HEA - Hydro Operations	2.7% Salary x 2.7% per MOU, plus 2.5% labor market adj for IBEW, 3.33% labor market adj for HEA. Broadbanding increases based on training, experience and qualifications.
Holiday Pay	For Shift workers in IBEW & Dispatch who are scheduled to work on the holiday (24 hour coverage)	IBEW 4 x 1.5 = 6 hours x pay rate, plus 8 hours x pay rate Dispatch 8 hours x pay rate	IBEW (756 hours/# employees) x 14 hours x pay rate Dispatch (288 hours/# employees) x 8 hours x pay rate
Overtime	Budgeted for General Office and Power Systems at time-and-a-half (x 1.5) & double time (x 2.0)	IS Clerical, Programmers, Accounting, Admins, Dispatch, Power Mgmt Hydro Geo CT 1, CT 2, LEC	Gross Wages x 8.17% x 1.5 Gross Wages x (1.3% to 10%) x 1.5 Gross Wages x (2% to 11%) x 1.5, 4% x 2.0 Gross Wages x (1.5% to 9.75%) x 1.5, 3.25% x 2.0 Gross Wages x (5% to 24%) x 1.5
Shift Pay	Hourly premium for swing and graveyard shifts worked 50% of time. Shifts are 12-hours	Hourly shift differential	\$1.25/\$2.50 Differential x 2,080 hours x 50%
Relief	IBEW GEO/CT Bargaining Group System Dispatcher & Schedule Coordinator	Hourly relief differential 2.0% of base pay Hourly relief differential 5% of base pay	\$1.35-\$1.40 Differential x 2,080 hours \$3.48-\$3.84 Differential x 2,080 hours
Standby Pay	Standby pay for Hydro Operations	2 hours straight time pay per day Mon - Fri 3 hours straight time pay per day Sat - Sun 8 hours straight time pay per scheduled holiday	(886 hours/# employees x average dept. hourly wage)
Travel Pay (Geo only)	Geothermal project employees receive daily travel pay due to hazardous commute	\$14.40/day	25 pay periods x 9 days per pay period x 14.40 = \$3,240 per employee
	Geo Operator Technicians work fewer days due to 12-hour shifts	2,080 work hours less 80 hours vacation	2,000 hours/12 hrs per day x \$14.40 = \$2,400 per employee
<b>PAYROLL TAXES</b>			
FICA (Federal Insurance Contribution Act)	Social Security taxes paid by employer	Old Age Survivor Disability Insurance (OASDI) Maximum wage x 6.2%	\$137,700 \$137,700 x 6.2% = \$8,537.40
	Medicare taxes paid by employer	Hospital Insurance (HI), 1.45% on gross wages, plus .9% on gross wages exceeding \$200,000	Unlimited (HI=Gross Wage x 1.45%), If(Gross Wage > \$200,000, then Gross Wage x 1.45% plus .9% x (Gross Wage - \$200,000)
SUI (State Unemployment Insurance)	Employer contribution to State	SUI Maximum wage Maximum withheld	\$7,000 3.1% If (Total Comp x 3.1%)<\$217, then (Total Comp x 3.1%), otherwise \$217

NORTHERN CALIFORNIA POWER AGENCY  
FY 2021 BUDGET  
DIRECT LABOR AND RELATED COSTS

ITEM	EXPLANATION	RATE	FORMULAE FOR BUDGET
<b>EMPLOYEE BENEFITS</b>			
Pension	<p>PERS Retirement 2.5% at 55, 3 year average, as of 12/20/09</p> <p>PERS Retirement 2% at 62, 3 year average, as of 1/1/2013</p> <p>ICMA 401A, hire date between 1/1/13 and 12/31/18</p>	<p>Normal cost 11.395%</p> <p>Prior service cost 26.245%</p> <p>Pickup – All groups 0.0%</p> <p>Classic Employee Contribution 8.0%</p> <p>New Mbr Employee Contribution 6.5%</p> <p>Employer Contribution 4.0%</p>	<p>Determined by PERS</p> <p>Actuary paid on base pay, holiday pay and shift differential</p>
Health Insurance	Based on projection from actuary or historical based estimate as applicable. Medical estimated to increase 10%.	<p>Premium/person/month medical (CTs,HQ Unrep)</p> <p>Premium/person/month medical (Hydro, Geo)</p> <p>Premium/person/month dental</p> <p>Premium/person/month vision</p> <p>Premium/person/month employee assistance</p>	<p>Actual Actual Premiums</p> <p>Monthly premium = 1,798.26 currently x 12 mos.</p> <p>Monthly premium = 1,873.26 currently x 12 mos.</p> <p>Monthly premium x 12 months</p> <p>Monthly premium x 12 months</p> <p>Monthly premium x 12 months</p>
Retirement Health Insurance	Retired employees only	Per actuary estimate as applied to current historical estimate amount/year	Estimated \$16,906.57 x 167.5 employees = \$2,831,850 (0.5FTE for new position start at mid-yr)
Flex Spending	Employer contribution	\$500 year contributed	\$500 per employee
Life Insurance	<p>Paid on behalf of each Bargaining Group employee at two times the annual rounded up to the nearest thousand</p> <p>Unrepresented only at three times annual salary rounded up to nearest thousand</p>	<p>\$.20/\$1,000 Gross Wage (GW)</p> <p>Maximum yearly premium</p> <p>\$.20/\$1,000 Gross Wage (GW)</p> <p>Maximum yearly premium</p>	<p>If (GW/\$1,000 x 2 x \$.20 x 12 mo.)&lt;\$848.23, then (GW/\$1,000 x 2 x \$.20 x 12 mo.), otherwise \$848.23</p> <p>If (GW/\$1,000 x 3 x \$.20 x 12 mo.)&lt;\$848.23, then (GW/\$1,000 x 3 x \$.20 x 12 mo.), otherwise \$848.23</p>
Short-Term Disability	Paid on behalf of each employee	\$.12/60% gross weekly wage	<p>Represented</p> <p>If (GW/2080 x 40 x 60%)&gt;=\$1,860, then (GW/2080 x 40 x 60%)/10 x .12 x 12 otherwise \$212.04</p> <p>Unrepresented</p> <p>If (GW/2080 x 40 x 60%)&gt;=\$2,750, then (GW/2080 x 40 x 60%)/10 x .12 x 12 otherwise \$313.50</p>
Long-Term Disability Insurance	Paid on behalf of each employee	<p>\$.49/\$100 Gross Wage (GW)</p> <p>Maximum yearly premium</p>	<p>Represented</p> <p>If (GW/\$100 x .49)&lt;\$793.15, then (GW/\$100 x .49, otherwise \$793.15</p> <p>Unrepresented</p> <p>If (GW/\$100 x .49)&lt;\$1,077.10, then (GW/\$100 x .49), otherwise \$1,077.10</p>
Workers' Compensation	Paid on behalf of each employee. The rate varies per person, depending on their job, and is multiplied by an experience rate. It is paid on total compensation, except the Premium Time Factor in Overtime (amount over straight time).	<p>Rates per \$100 based on current historical estimate:</p> <p>General Office, Clerical \$0.43</p> <p>GM, Ass't GM, Ops &amp; Eng, Proj Dir, Plan \$0.57</p> <p>Power Systems \$2.53</p> <p>Experience Rate 65%</p> <p>Premium Time Factor – 1/3 OT</p>	<p>(Total Comp - (1/3 x OT))/100 x (Rate x Experience Rate)</p>

**NORTHERN CALIFORNIA POWER AGENCY  
EXPENDITURES AND FUNDING SOURCES**

**EXPENDITURES**

<b>FISCAL YEAR ENDED JUNE 30</b>			
	<b>Approved</b>	<b>Proposed</b>	<b>Increase</b>
	<b>2020</b>	<b>2021</b>	<b>(Decrease)</b>
Hydroelectric	\$ 54,074,101	\$ 54,260,369	\$ 186,268
Geothermal	35,311,011	35,561,392	250,381
Combustion Turbine No. 1	6,169,530	7,883,578	1,714,048
Combustion Turbine No. 2 (STIG)	9,438,409	7,989,079	(1,449,330)
Lodi Energy Center	94,399,317	94,074,960	(324,357)
Other Power Supply	354,745,014	370,785,414	16,040,400
Transmission	117,088,855	120,026,101	2,937,246
Legislative & Regulatory	4,049,312	4,088,112	38,800
Judicial Action	625,000	460,000	(165,000)
Judicial Action Direct Costs to Programs	(74,646)	(74,282)	364
Power Management	9,208,901	9,874,545	665,644
Energy Risk Management	211,744	229,845	18,101
Settlements	979,916	923,646	(56,270)
Integrated Systems Support	243,161	266,055	22,894
Participant Pass Through Costs (TANC, Dues, Etc)	1,560,447	1,590,641	30,194
Support Services	43,685	42,235	(1,450)
Support Services Reimbursements	(43,685)	(42,235)	1,450
<b>Total Annual Expenditures</b>	<b>688,030,072</b>	<b>707,939,455</b>	<b>19,909,383</b>

**FUNDING SOURCES**

ISO Energy Sales	63,802,783	62,817,135	(985,648)
ISO Energy Sales-Plants	127,623,712	105,258,271	(22,365,441)
Energy Sales to Third Parties	1,181,273	7,593,525	6,412,252
Member Owned Generation ISO Energy Revenue	67,107,648	69,679,260	2,571,612
Ancillary Services Sales	4,196,879	3,988,092	(208,787)
PM Service Revenue	2,236,497	2,064,318	(172,179)
Interest and Other Income	15,201,514	25,354,324	10,152,810
<b>Total Revenues and Other Income</b>	<b>281,350,306</b>	<b>276,754,925</b>	<b>(4,595,381)</b>

**Net Proposed Funding from Participants**

<b>406,679,766</b>	<b>431,184,530</b>	<b>24,504,764</b>
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Northern California Power Agency  
Participant Funding Requirements (Net)  
FY 2021 Budget

GENERATION RESOURCES	Budget	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Palo Alto	Plumas Sierra	Port of Oakland	Redding	Roseville	Santa Clara	Shasta Lake	Truckee-Donner	Ukiah	TID	All Other
Hydro	\$29,166,842	\$3,051,313	\$ -	\$ -	\$ -	\$342,914	\$3,164,211	\$701,802	\$6,993,608	\$515,672	\$ -	\$ -	\$2,478,895	\$11,295,959	\$ -	\$ -	\$622,469	\$ -	\$ -
Geothermal	8,522,534	1,454,157	-	19,476	28,954	316,452	887,515	317,057	-	60,416	-	-	677,574	3,734,199	-	-	483,595	543,140	-
Combustion Turbine No. 1	6,572,178	1,434,049	-	-	23,003	383,376	880,232	383,376	-	119,396	-	-	-	2,738,409	-	-	597,411	-	-
Combustion Turbine No. 2 (STIG)	5,617,806	1,067,383	-	-	-	-	2,219,033	286,389	-	-	-	-	2,045,001	-	-	-	-	-	-
Lodi Energy Center	27,923,503	-	2,072,351	84,114	616,783	515,821	2,982,934	639,187	-	246,700	-	-	-	8,085,304	-	-	560,696	-	12,119,615
	77,802,863	7,006,902	2,072,351	116,617	668,739	1,558,563	10,133,926	2,327,911	6,993,608	942,183	-	-	5,201,469	25,853,870	-	-	2,264,170	543,140	12,119,615
Member Resources-Energy	26,077,618	3,384,548	361,802	-	-	-	1,161,013	19,973,312	134,760	1,062,183	-	-	-	-	-	-	-	-	-
Member Resources-Natural Gas	118,503	-	-	1,927	10,327	3,963	82,865	12,784	-	-	-	-	-	-	-	-	6,538	-	-
Western Resource	2,195,349	140,280	-	34,371	76,865	29,204	66,210	37,543	1,431,315	269,040	70,350	-	-	-	-	-	40,171	-	-
NCPA Contracts & Market Power Purchases	8,470,873	173,999	7,907,880	3,358	98,626	-	240,324	46,837	-	-	-	-	-	-	-	-	(51)	-	-
Load Aggregation Costs	250,995,102	13,349,525	17,228,862	599,407	1,370,162	2,990,482	16,477,332	5,027,261	32,407,923	5,418,404	4,572,051	-	-	-	-	-	4,228,991	-	0
Net GHG Obligations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	287,857,445	17,048,352	25,498,544	639,963	1,555,880	3,023,648	18,027,843	5,124,425	53,812,550	5,822,204	5,704,584	-	-	147,324,702	-	-	4,275,648	-	-
	365,660,308	24,055,254	27,570,895	755,580	2,224,620	4,582,211	28,161,789	7,452,236	60,806,159	6,764,387	5,704,584	-	5,201,469	173,178,572	-	-	6,539,619	543,140	12,119,615
TRANSMISSION																			
NCPA Plant Transmission *																			
Geothermal Plant 1	(90)	(30)	-	-	(1)	(6)	(29)	(6)	(1)	(6)	-	-	-	-	-	-	(10)	-	-
Geothermal Plant 2	(16,619)	(4,736)	-	(115)	(85)	(1,033)	(1,514)	(1,033)	(172)	(3,157)	-	-	(3,157)	-	-	-	(1,579)	(3,194)	-
	(16,709)	(4,766)	-	(115)	(86)	(1,040)	(1,543)	(1,040)	-	(3,164)	-	-	(3,164)	-	-	-	(1,589)	(3,194)	-
Independent System Operator	119,995,200	9,866,027	12,761,739	428,950	962,737	2,169,660	11,845,417	3,724,724	24,247,961	2,959,150	3,481,588	-	-	44,495,179	-	-	3,053,070	-	-
	119,978,491	9,861,262	12,761,739	428,835	962,651	2,167,620	11,843,874	3,723,684	24,247,961	2,958,976	3,481,588	-	(3,164)	44,495,179	-	-	3,051,481	(3,194)	-
MANAGEMENT SERVICES																			
LEGISLATIVE & REGULATORY																			
Legislative Representation	1,542,267	84,322	-	52,895	54,608	58,691	90,841	63,845	135,294	65,138	61,914	120,532	160,563	395,619	69,935	66,240	61,832	-	-
Regulatory Representation	505,899	27,660	-	17,351	17,913	19,252	29,798	20,943	44,380	21,367	20,309	39,537	52,668	129,772	22,940	21,728	20,282	-	-
Western Representation	713,150	20,104	8,114	4,924	11,620	4,191	9,489	5,377	205,159	29,388	10,682	135,991	80,891	160,059	13,423	9,253	5,764	-	-
JPA Assessment	1,313,996	53,489	60,789	2,416	5,198	11,834	64,083	20,210	136,326	22,312	17,072	112,335	177,392	559,393	30,107	24,102	16,939	-	-
	4,075,312	185,574	68,902	77,586	88,738	93,967	194,211	110,375	521,159	138,125	109,377	408,395	471,514	1,244,843	136,405	121,323	104,818	-	-
Judicial Action																			
Tariffs & Rates	345,718	45,094	442	2,167	3,316	8,671	46,060	14,261	81,640	11,940	13,395	-	16,616	87,995	-	-	12,141	1,979	-
Contingency **	40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	385,718	45,094	442	2,167	3,316	8,671	46,060	14,261	81,640	11,940	13,395	-	16,616	87,995	-	-	12,141	1,979	-
POWER MANAGEMENT																			
Power Mgmt., SCALD, ISS,																			
Energy Risk Mgmt & Settlements	11,044,179	1,039,846	979,710	82,200	114,816	205,438	1,114,320	386,530	1,841,249	332,078	529,849	-	528,211	3,449,060	-	-	303,615	137,258	-
Green Power Program	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Market Purchase Program	112,082	10,796	29,668	10,870	10,839	10,796	16,139	12,150	-	-	-	-	-	-	-	-	10,825	-	-
Gas Purchase Program	81,377	-	-	7,795	11,561	10,847	28,291	11,719	-	-	-	-	-	-	-	-	11,164	-	-
	11,237,638	1,050,641	1,009,379	100,864	137,216	227,081	1,158,749	410,389	1,841,249	332,078	529,849	-	528,211	3,449,060	-	-	325,604	137,258	-
	15,698,668	1,261,310	1,078,724	180,617	229,271	329,720	1,399,020	535,035	2,444,048	482,143	652,621	408,395	1,016,341	4,781,898	136,405	121,323	442,563	139,238	-
TANC- SOT	89,000	35,904	-	-	-	4,046	35,341	4,558	-	3,978	-	-	-	528,663	-	-	5,173	-	-
BAMx Consulting	837,600	-	180,000	-	-	-	-	-	128,837	-	-	-	-	-	-	-	-	-	-
Biggs 60Kv	4,700	-	-	4,700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
APPA Dues	333,045	24,904	-	1,295	4,041	7,278	26,627	13,220	43,089	-	-	47,398	56,025	74,165	12,219	13,779	9,004	-	-
SEPA Dues	19,000	2,436	-	487	487	487	2,436	487	487	487	487	2,436	2,436	2,437	487	487	487	-	-
DEED Dues	24,661	1,844	-	96	299	539	1,972	979	3,191	-	-	3,510	4,148	5,492	905	1,020	667	-	-
CEE Dues	10,000	667	-	667	667	667	667	667	667	667	667	667	667	667	667	667	667	-	-
ASE Dues	2,500	167	-	167	167	167	167	167	167	167	167	167	167	167	167	167	167	-	-
Subscriptions	18,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metering Maintenance	142,000	5,995	72,000	5,995	2,998	2,998	8,993	7,048	11,991	5,995	11,991	2,500	6,000	3,500	-	-	5,995	-	-
Customer Programs Projects **	100,235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WRGIS Certificate Transfer Fees**	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pass Through Costs	1,590,641	71,917	252,000	13,407	8,658	16,181	76,203	27,126	196,377	11,294	13,311	56,677	69,443	615,090	14,444	16,120	22,159	-	-
Support Services	42,235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Services Reimbursements	(42,235)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER THIRD PARTY REVENUE																			
PM Service Revenue (Nisant)	(1,857,886)	(141,522)	(164,224)	(12,468)	(19,987)	(30,366)	(163,179)	(57,078)	(243,973)	(46,744)	(82,196)	-	(81,271)	(663,731)	-	-	(43,495)	(23,903)	(83,750)
PM Service Revenue (A&G)	(206,432)	(22,954)	(7,814)	(918)	(2,645)	(6,375)	(27,675)	(7,609)	(14,328)	(3,385)	(1,448)	(928)	(14,853)	(85,720)	(353)	(325)	(9,103)	-	-
Member-Owned Generation ISO Energy Revenue	(69,679,260)	-	(444,759)	-	-	-	-	-	(901)	(1,225,651)	-	-	-	(67,780,440)	-	-	(227,508)	-	-
Revenue from Customers	(71,743,578)	(164,476)	(616,796)	(13,386)	(22,631)	(36,740)	(190,854)	(64,687)	(259,202)	(1,275,780)	(83,645)	(928)	(96,124)	(68,529,891)	(353)	(325)	(280,107)	(23,903)	(83,750)
JPA Assessment - Others																			
Non-NCPA Participants	94,834	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,227	88,606
Credits to Participants	(94,834)	(3,860)	(4,387)	(174)	(375)	(854)	(4,625)	(1,459)	(9,839)	(1,610)	(1,232)	(8,107)	(12,803)	(40,373)	(2,173)	(1,739)	(1,223)	-	-
	-	(3,860)	(4,387)	(174)	(375)	(854)	(4,625)	(1,459)	(9,839)	(1,610)	(1,232)	(8,107)	(12,803)	(40,373)	(2,173)	(1,739)	(1,223)	6,227	88,606
NET ANNUAL BUDGET COST	\$ 431,184,830	\$ 35,101,406	\$ 41,042,173	\$ 1,364,878	\$ 3,402,193	\$ 7,058,137	\$ 41,285,386	\$ 11,671,935	\$ 87,425,503	\$ 8,939,410	\$ 9,767,227	\$ 456,037	\$ 6,175,163	\$ 154,500,475	\$ 148,323	\$ 135,378	\$ 9,774,693	\$ 661,508	\$ 12,124,471
FY2020 Net Annual Budget Cost	406,679,766	33,042,759	28,484,431	1,254,699	3,107,919	6,286,897	38,098,759	10,706,821	83,741,322	8,467,150	7,959,670	457,761	5,834,644	162,295,872	131,468	131,494	8,044,011	414,445	8,068,146
Incr (decr)	24,505,064	2,058,647	12,557,743	110,179	294,274	771,239	3,186,627	965,114	3,684,182	472,260	1,807,558	(1,724)	340,818	(7,795,398)	16,855	3,884	1,730,682	247,063	4,056,325

\* Geothermal transmission shown separately from Plant due to participant allocation differences.

\*\* Memo only - Estimates included in NET ANNUAL BUDGET COST, but not allocated to Participants due to contingent nature of costs.  
In FY2020 Member Services Projects renamed to Customer Programs Projects

Funding Requir Funding Requirements (Net)

**Northern California Power Agency  
Participant Funding Requirements (Gross)  
FY 2021 Budget**

**GENERATION RESOURCES**

	Budget	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Palo Alto	Plumas Sierra	Port of Oakland	Redding	Roseville	Santa Clara	Shasta Lake	Truckee-Donner	Ukiah	TID	All Other
Hydro	\$54,260,368	\$5,560,665	\$ -	\$ -	\$ -	\$ 759,466	\$ 5,766,410	\$1,278,953	\$ 12,745,045	\$ 939,752	\$ -	\$ -	\$5,490,117	\$ 20,585,583	\$ -	\$ -	\$1,134,376	\$ -	\$ -
Geothermal	35,467,725	5,987,839	-	80,512	119,171	1,303,084	3,646,082	1,305,566	-	248,628	-	-	2,795,922	15,744,300	-	-	1,991,336	2,245,285	-
Combustion Turbine No. 1	7,883,578	1,207,197	-	15,510	27,593	459,870	1,055,867	459,870	-	143,224	-	-	-	3,284,631	-	-	716,617	-	-
Combustion Turbine No. 2 (STIG)	7,989,079	1,517,925	-	-	-	-	3,155,686	382,658	-	-	-	-	2,932,610	-	-	-	-	-	-
Lodi Energy Center	94,074,960	-	6,463,132	262,339	1,923,572	1,608,726	1,993,477	1,993,477	-	769,402	-	-	-	25,216,001	-	-	1,748,668	-	44,786,645
	199,675,710	14,786,626	6,463,132	358,361	2,070,336	4,131,146	22,927,042	5,420,723	12,745,045	2,101,006	-	-	11,218,649	64,830,714	-	-	5,590,998	2,245,285	44,786,645
Member Resources-Energy	60,055,852	10,914,757	1,044,212	-	-	-	1,964,515	-	42,849,543	445,290	-	2,837,535	-	-	-	-	-	-	-
Member Resources-Natural Gas	2,442,174	-	-	52,783	140,429	199,713	1,429,490	423,676	-	-	-	-	-	-	-	-	196,083	-	-
Western Resource	29,869,636	1,908,383	-	467,398	1,046,063	397,839	900,718	510,445	19,474,457	3,660,109	-	957,042	-	-	-	-	547,182	-	-
NCPA Contracts & Market Power Purchases	27,422,650	173,999	23,587,091	31,614	151,600	-	2,928,359	538,501	-	-	-	-	-	-	-	-	11,486	-	-
Load Aggregation Costs	250,995,102	13,349,525	17,228,862	599,407	1,370,162	2,990,482	16,477,331	5,027,261	32,407,923	5,418,404	4,572,051	-	-	147,324,703	-	-	4,228,991	-	0
Net GHG Obligations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	370,785,414	26,346,664	41,860,165	1,151,202	2,708,254	3,588,034	23,700,413	6,499,883	94,731,923	9,523,803	8,366,628	-	-	147,324,703	-	-	4,983,742	-	-
	570,461,124	41,133,290	48,323,297	1,509,563	4,778,590	7,719,180	46,627,455	11,920,606	107,476,968	11,624,809	8,366,628	-	-	11,218,649	212,155,417	-	10,574,740	2,245,285	44,786,645

**TRANSMISSION**

NCPA Plant Transmission *																			
Geothermal Plant 1	55,098	18,217	-	-	406	3,951	17,690	3,968	-	874	-	-	3,951	-	-	-	6,041	-	-
Geothermal Plant 2	38,569	10,991	-	266	198	2,398	3,513	2,398	-	400	-	-	7,327	-	-	-	3,664	7,413	-
	93,667	29,208	-	266	604	6,349	21,203	6,366	-	1,273	-	-	11,278	-	-	-	9,705	7,413	-

**Independent System Operator**

	120,026,101	9,868,568	12,765,025	429,060	962,985	2,169,218	11,848,467	3,725,683	24,254,205	2,959,912	3,482,485	-	-	44,506,637	-	-	3,053,856	-	-
	120,119,768	9,897,776	12,765,025	429,326	963,589	2,175,567	11,869,670	3,732,049	24,254,205	2,961,185	3,482,485	-	-	44,506,637	-	-	3,063,561	7,413	-

**MANAGEMENT SERVICES**

**LEGISLATIVE & REGULATORY**

Legislative Representation	1,545,214	84,483	-	52,997	54,712	58,803	91,015	63,967	135,553	65,262	62,032	120,762	160,870	396,375	70,068	66,366	61,950	-	-
Regulatory Representation	505,699	27,660	-	17,351	17,913	19,252	29,798	20,943	44,380	21,367	20,309	39,537	52,668	129,772	22,940	21,728	20,282	-	-
Western Representation	716,059	20,186	8,147	4,944	11,065	4,208	9,527	5,399	205,996	29,428	10,123	136,546	61,221	160,715	13,478	9,288	5,788	-	-
JPA Assessment	1,320,940	53,771	61,110	2,429	5,226	11,896	64,422	20,317	137,046	22,430	17,162	112,928	178,329	562,349	30,266	24,230	17,029	-	-
	4,085,112	186,100	69,257	77,720	88,915	94,159	194,761	110,626	522,975	138,487	109,626	409,773	473,688	1,249,211	136,752	121,611	105,050	-	-

**Judicial Action**

Tariffs & Rates	345,718	45,094	442	2,167	3,316	8,671	46,060	14,261	81,640	11,940	13,395	-	16,616	87,996	-	-	12,141	1,979	-
Contingency **	40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	385,718	45,094	442	2,167	3,316	8,671	46,060	14,261	81,640	11,940	13,395	-	16,616	87,996	-	-	12,141	1,979	-

**POWER MANAGEMENT**

Power Mgmt, SCALD, ISS,																			
Energy Risk Mgmt & Settlements	11,095,114	1,043,951	986,081	82,543	115,339	206,222	1,119,226	388,147	1,848,607	333,416	531,838	-	530,398	3,460,789	-	-	304,923	137,918	5,716
Green Power Program	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Market Purchase Program	117,239	11,293	31,034	11,370	11,338	11,293	16,881	12,709	-	-	-	-	-	-	-	-	11,323	-	-
Gas Purchase Program	81,738	-	-	7,829	11,612	10,895	28,416	11,771	-	-	-	-	-	-	-	-	11,214	-	-
	11,294,091	1,055,244	1,017,114	101,742	138,280	228,409	1,164,523	412,627	1,848,607	333,416	531,838	-	530,398	3,460,789	-	-	327,459	137,918	5,716
	15,767,921	1,286,438	1,086,813	181,629	230,521	331,240	1,405,344	537,514	2,453,222	483,843	654,859	409,773	1,020,102	4,797,996	136,752	121,611	444,650	139,897	5,716

**TANC- SOT**

BAMx Consulting	837,500	-	180,000						128,837		-		528,663						
Biggs 60Kv	4,700			4,700															
APPA Dues	333,045	24,904		1,295	4,041	7,278	26,627	13,220	43,089		47,398	56,025	74,165	12,219	13,779	9,004			
SEPA Dues	19,000	2,436		487	487	487	2,436	487	2,436	487	487	2,436	2,436	487	487	487			
DEED Dues	24,661	1,844		96	299	539	1,972	979	3,191		3,510	4,148	5,492	905	1,020	667			
CEE Dues	10,000	667		667	667	667	667	667	667	667	667	667	667	667	667	667			
ASE Dues	2,500	167		167	167	167	167	167	167	167	167	167	167	167	167	167			
Subscriptions	18,000								6,000										
Metering Maintenance	142,000	5,995	72,000	5,995	2,998	2,998	8,993	7,048	11,991	5,995	11,991	2,500	6,000	3,500	-				
Customer Programs Projects **	100,235																		5,995
WREGIS Certificate Transfer Fees**	10,000																		

**Pass Through Costs**

	1,590,641	71,917	252,000	13,407	8,658	16,181	76,203	27,126	196,377	11,294	13,311	56,677	69,443	615,090	14,444	16,120	22,159	-	-
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Support Services	42,235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Services Reimbursements	(42,235)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**JPA Assessment - Others**

Non-NCPA Participants	94,834	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,227	88,606
Credits to Participants	(94,834)	(3,860)	(4,387)	(174)	(375)	(854)	(4,625)	(1,459)	(9,839)	(1,610)	(1,232)	(8,107)	(12,803)	(40,373)	(2,173)	(1,739)	(1,223)	-	-
	-	(3,860)	(4,387)	(174)	(375)	(854)	(4,625)	(1,459)	(9,839)	(1,610)	(1,232)	(8,107)	(12,803)	(40,373)	(2,173)	(1,739)	(1,223)	6,227	88,606

<b>GROSS ANNUAL BUDGET COST</b>	<b>\$ 707,939,454</b>	<b>\$ 52,385,561</b>	<b>\$ 62,422,748</b>	<b>\$ 2,133,750</b>	<b>\$ 5,980,962</b>	<b>\$ 10,241,315</b>	<b>\$ 59,974,047</b>	<b>\$ 16,215,837</b>	<b>\$ 134,370,933</b>	<b>\$ 15,079,521</b>	<b>\$ 12,516,051</b>	<b>\$ 456,343</b>	<b>\$ 12,306,670</b>	<b>\$ 262,034,768</b>	<b>\$ 149,024</b>	<b>\$ 135,992</b>	<b>\$ 14,103,687</b>	<b>\$ 2,396,823</b>	<b>\$ 44,880,968</b>
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**LESS: THIRD PARTY REVENUE**

Market Power Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ISO Energy Sales	62,817,135	6,495,778	16,361,621	301,767	628,480	232,864	4,018,656	790,360	28,867,862	2,452,510	2,335,431	-	-	-	-	-	-	331,806	-
ISO Energy Sales-Plants	105,258,271	6,934,099	3,668,957	210,099	1,183,273	2,305,657	10,564,192	2,667,621	5,076,192	1,015,824	-	-	4,857,780	34,517,313	-	-	-	3,012,821	1,633,935
Energy Sales to Third Parties	7,593,525	2,151,250	-	-	36,800	-	-	-	5,405,475	-	-	-	-	-	-	-	-	-	-
Member-Owned Generation ISO Energy Revenue	69,679,260	-	444,759	-	-	-	-	-	901	1,225,651	-	-	-	67,780,441	-	-	-	227,508	-
Ancillary Services Sales	3,988,092	227,611	112,991	4,586	33,629	65,908	398,671	87,201	521,684	51,917	-	273,133	1,283,451	-	-	-	77,003	850,307	-
Transmission Sales	110,376	18,634	-	251	371	4,055	11,347	4,063	-	774	-	-	48,996	-	-	-	6,197	-	-
Gas Transfer Credits	2,316,280	-	-	50,768	129,736	195,472	1,342,190	409,420	-	-	-	-	-	-	-	-	188,694	6,987	-
Fuel and Pipeline Transport Credits	1,820,720	345,937	-	-	-	-	719,184	91,036	-	-	-	-	664,563	-	-	-	-	-	-
GHG Allowance Credits	8,506,604	8,214	573,894	23,295	170,803	142,847	843,134	177,011	-	68,319	-	17,940	2,239,055	-	-	-	195,273	-	4,086,818
Western O&M Credits	10,171,776	-	649,884	-	-	356,230	135,490	173,832	6,631,702	325,914	-	-	-	-	-	-	342	-	-
PM Service Revenue	2,064,318	164,476	172,037	13,386	22,631	36,740	190,854	64,687	258,301	50,129	83,645	928	96,124	749,451	353	325	52,599	23,903	83,750
Solar Rebates	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effluent Revenue	750,000	126,619	-	1,703	2,520	27,555	77,100	27,608	-	5,258	-	59,123	332,929	-	-	-	42,109	47,479	-
Revenue from Customers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest and Other Income	1,678,567	161,654	46,315	3,843	14,321	36,600	216,602	51,063	183,234	23,320	8,335	1,378	154,145	582,657	348	289	48,842	25,010	125,110
	276,754,924	17,284,155	21,380,574	768,872	2,578,789	3,183,178	18,688,661	5,543,902	46,945,430	6,140,111	2,748,824	2,306	6,131,508	107,534,294	701	614	4,329,194	1,737,315	32,756,497
NET ANNUAL BUDGET COST	\$431,184,530	\$35,101,406	\$41,042,174	\$1,364,878	\$3,402,193	\$7,058,137	\$41,288,386	\$4,167,935	\$87,425,503	\$8,939,440	\$7,767,227	\$456,037	\$6,175,162	\$154,500,475	\$148,323	\$135,378	\$9,774,693	\$661,508	\$12,124,447

Northern California Power Agency  
Calculation of JPA Assessment for Fiscal Year 2021 Budget

L & R Programs	Proposed Budget FY 2021	Governance Committee Recommended Allocation Percentages	Base Costs for JPA Assessment	JPA Assessment per MWh 8,760,087 Agency MWh Load
Legislative	\$ 2,177,174	29.1620%	\$ 634,907	
Regulatory	714,164	29.1620%	208,265	
Customer Programs	470,824	100.0000%	470,824	
<b>Total</b>	<b>\$ 3,362,162</b>		<b>\$ 1,313,996</b>	<b>\$ 0.15000 per MWh</b>

The revised JPA adopted 1/1/2008 applies collected JPA funds first to cover all of L&R's Member Services budget category, then to cover up to 1/3 of each of the Legislative and Regulatory budget categories. The "Western" L&R budget category is excluded as per recommendation of the Governance Committee.

\$/ MWh not to exceed \$0.15

JPA Assessment Amount \$ / MWh			\$0.150	Allocated Credits				Net Impact of JPA Funds Allocation Incr (Decr)
Member	Energy Delivered MWh	Share %	JPA Assessment	Legislative Representation Program	Regulatory Representation Program	Customer Programs	Subtotal	
Alameda	356,595	4.0707%	\$53,489	(\$34,713)	(\$11,387)	(\$31,388)	(\$77,488)	\$ (23,999)
BART	405,263	4.6262%	60,789				0	60,789
Biggs	16,107	0.1839%	2,416	(21,776)	(7,143)	(31,388)	(60,307)	(57,891)
Gridley	34,656	0.3956%	5,198	(22,480)	(7,374)	(31,388)	(61,243)	(56,044)
Healdsburg	78,893	0.9006%	11,834	(24,161)	(7,925)	(31,388)	(63,475)	(51,641)
Lodi	427,225	4.8770%	64,083	(37,397)	(12,267)	(31,388)	(81,052)	(16,969)
Lompoc	134,737	1.5381%	20,210	(26,283)	(8,621)	(31,388)	(66,293)	(46,083)
Palo Alto	908,852	10.3749%	136,326	(55,697)	(18,270)	(31,388)	(105,355)	30,971
Plumas Sierra	148,747	1.6980%	22,312	(26,815)	(8,796)	(31,388)	(67,000)	(44,688)
Port Of Oakland	113,814	1.2992%	17,072	(25,488)	(8,361)	(31,388)	(65,237)	(48,165)
Redding	748,908	8.5491%	112,335	(49,619)	(16,276)	(31,388)	(97,284)	15,051
Roseville	1,182,626	13.5002%	177,392	(66,099)	(21,682)	(31,388)	(119,170)	58,222
Santa Clara	3,729,335	42.5719%	559,393	(162,865)	(53,424)	(31,388)	(247,677)	311,716
Shasta Lake	200,716	2.2913%	30,107	(28,790)	(9,444)	(31,388)	(69,622)	(39,515)
Truckee Donner	160,683	1.8343%	24,102	(27,269)	(8,945)	(31,388)	(67,602)	(43,500)
Ukiah	112,931	1.2892%	16,939	(25,455)	(8,350)	(31,388)	(65,193)	(48,253)
<b>Totals</b>	<b>8,760,087</b>	<b>100.0000%</b>	<b>\$1,313,996</b>	<b>(\$634,907)</b>	<b>(\$208,265)</b>	<b>(\$470,824)</b>	<b>(\$1,313,996)</b>	<b>(0)</b>

Northern California Power Agency  
Calculation of JPA Assessment for Fiscal Year 2021 Budget

JPA Assessment Amount \$ / MWh			\$0.150	
Member	CY19 Energy Delivered MWh	Share %	JPA Assessment	Participant Revenue Share
Alameda	356,595	4.0707%	\$53,489	\$3,860
BART	405,263	4.6262%	60,789	4,387
Biggs	16,107	0.1839%	2,416	174
Gridley	34,656	0.3956%	5,198	375
Healdsburg	78,893	0.9006%	11,834	854
Lodi	427,225	4.8770%	64,083	4,625
Lompoc	134,737	1.5381%	20,210	1,459
Palo Alto	908,852	10.3749%	136,326	9,839
Plumas Sierra	148,747	1.6980%	22,312	1,610
Port Of Oakland	113,814	1.2992%	17,072	1,232
Redding	748,908	8.5491%	112,335	8,107
Roseville	1,182,626	13.5002%	177,392	12,803
Santa Clara	3,729,335	42.5719%	559,393	40,373
Shasta Lake	200,716	2.2913%	30,107	2,173
Truckee Donner	160,683	1.8343%	24,102	1,739
Ukiah	112,931	1.2892%	16,939	1,223
Subtotal NCPA Participants	8,760,087	100.0000%	1,313,996	\$94,834
<b>Other participants:</b>				
TID <sup>1</sup>	655,799		6,227	
Other LEC Participants:				
City of Azusa <sup>2</sup>	n/a		4,970	
CDWR <sup>2</sup>	n/a		59,763	
MID <sup>2</sup>	n/a		19,114	
PWRPA <sup>2</sup>	n/a		4,759	
Subtotal Other LEC participants			88,606	
Subtotal Other participants	-		94,834	
<b>Total NCPA and Other</b>			<b>\$1,408,830</b>	

<sup>1</sup> CY2019 MWh share of Geothermal generation ( \$0.150 x 6.3305% x 655,799 MWh)

<sup>2</sup> Per LEC Project Management and Operations Agreement, Article 6.2.1.b

JPA Cost rate x GES x Annual CY Mwh Generation

Azusa \$0.150 x 2.7857% x 1,189,318

CDWR \$0.150 x 33.5000% x 1,189,318

MID \$0.150 x 10.7143% x 1,189,318

PWRPA \$0.150 x 2.6679% x 1,189,318