



FY 2022 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.

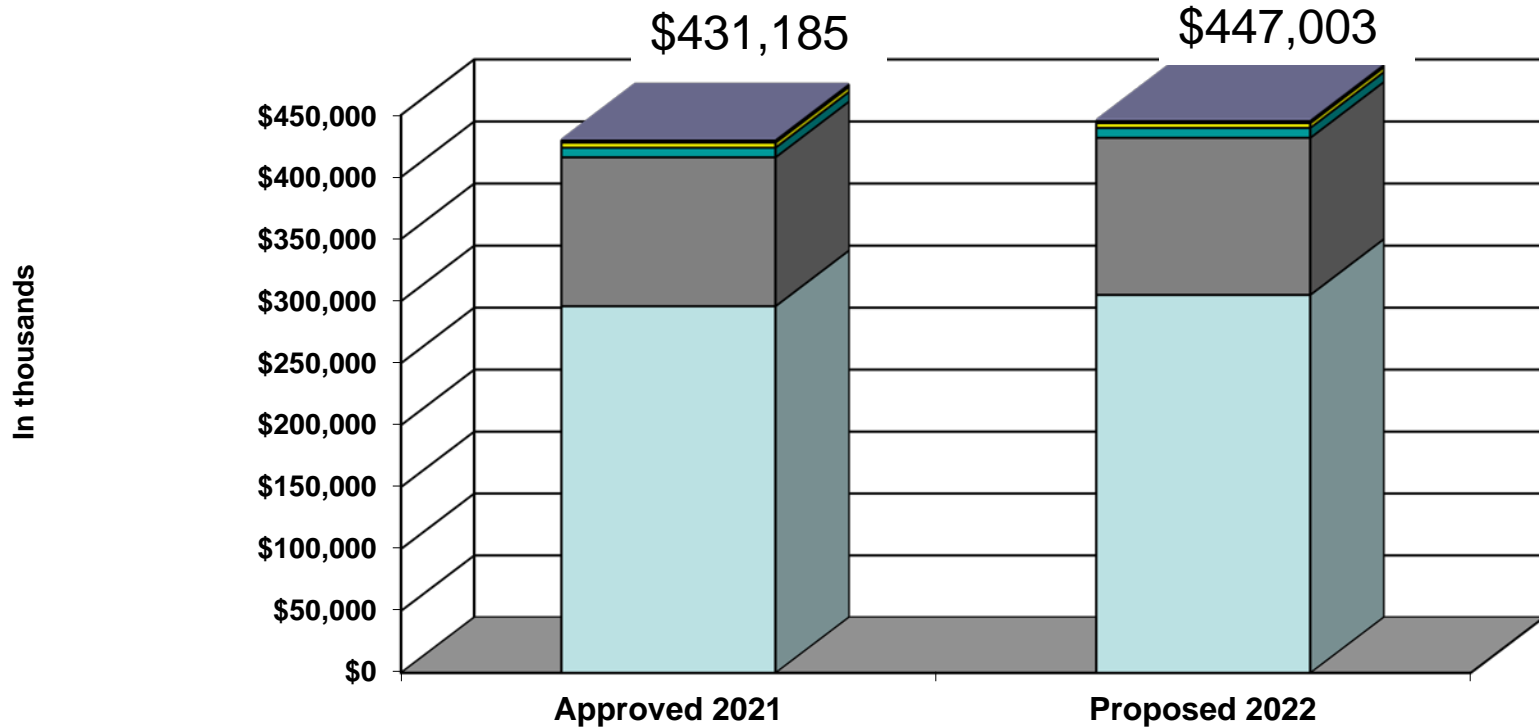
STRATEGIES

- 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 2021-2022

(net of revenues)

Proposed FY 2022 Budget, net of revenues, reflects an increase of \$15.8 million or 3.7% from FY 2021, primarily from higher energy and CAISO costs.



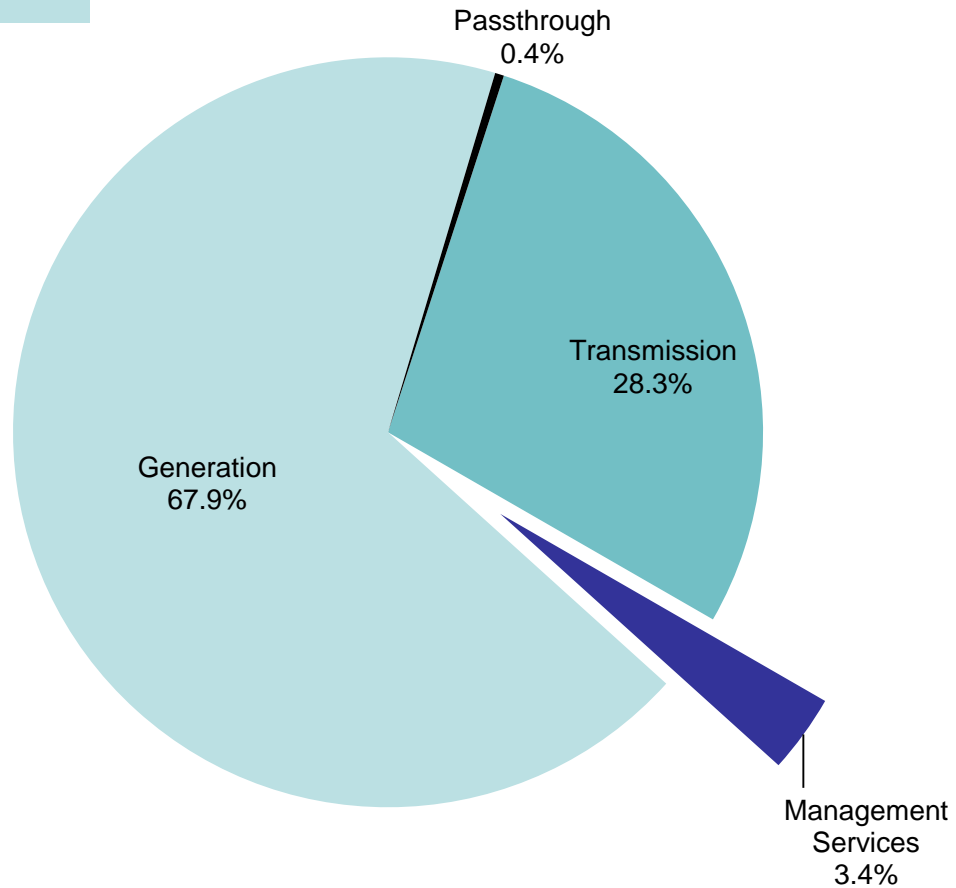
- | | | |
|----------------------------|------------------------------|----------------------|
| ■ Generation Resources | ■ Transmission | ■ Power Management |
| ■ Legislative & Regulatory | ■ Judicial Action | ■ Settlements |
| ■ Risk Management | ■ Integrated Systems Support | ■ Pass through Costs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

Proposed Budget (Net)

FY 2021-2022

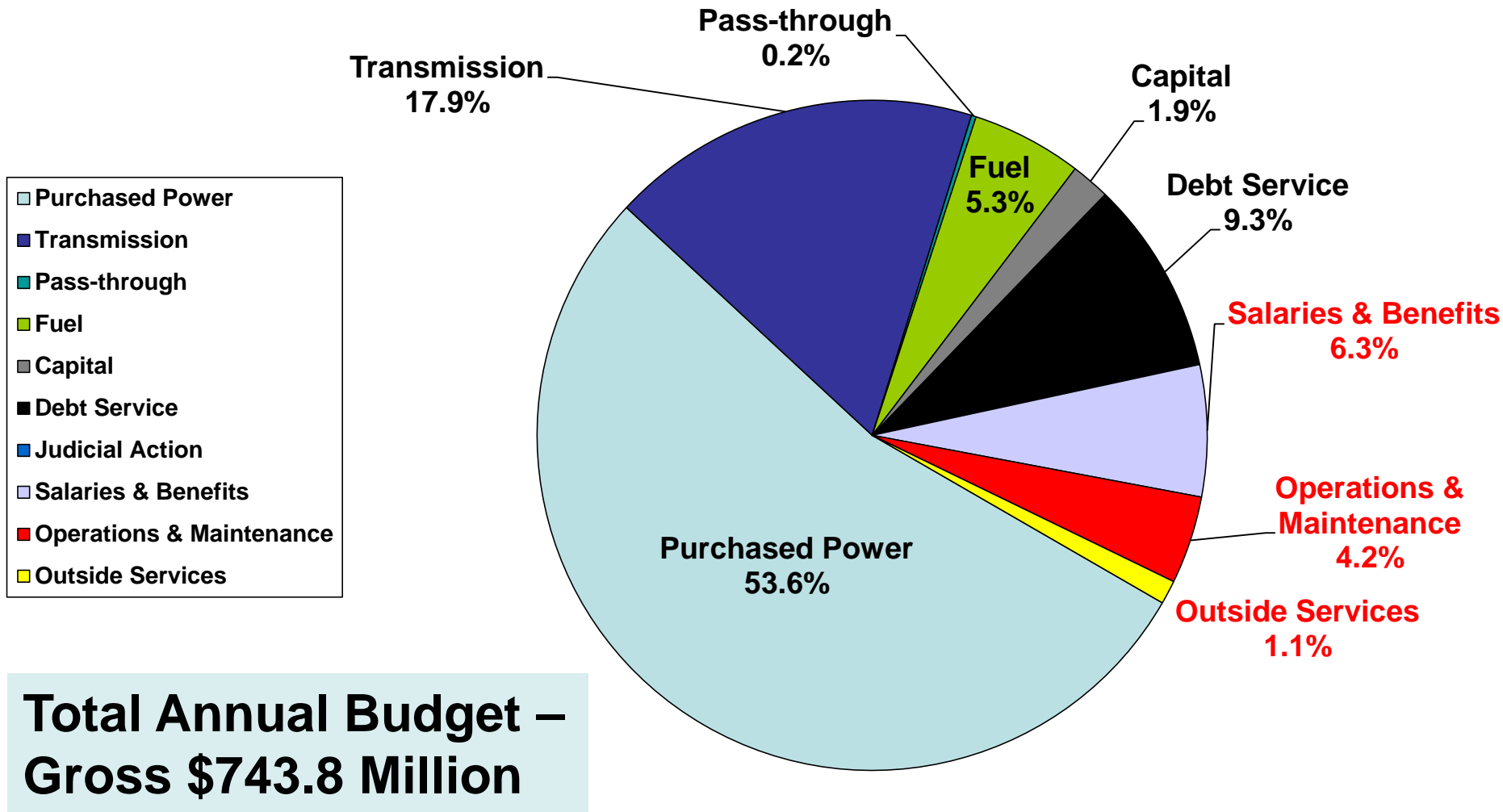
Total Annual Budget
\$447.0 Million

NCPA Budget



Proposed Budget by Line Item (Before Revenues)

FY 2021-2022



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		

FISCAL YEAR ENDED JUNE 30		
Approved	Proposed	
2021	2022	Inc/(Dec)
\$ 67,720,412	\$ 71,382,606	\$ 3,662,194
10,065,742	14,258,263	4,192,521
77,786,154	85,640,869	7,854,715
26,077,618	19,326,063	(6,751,555)
118,503	(430,986)	(549,489)
2,195,349	(2,319,736)	(4,515,085)
8,470,873	3,342,418	(5,128,455)
250,995,102	282,244,061	31,248,959
-	1,276,784	1,276,784
365,643,599	389,079,473	23,435,874

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	

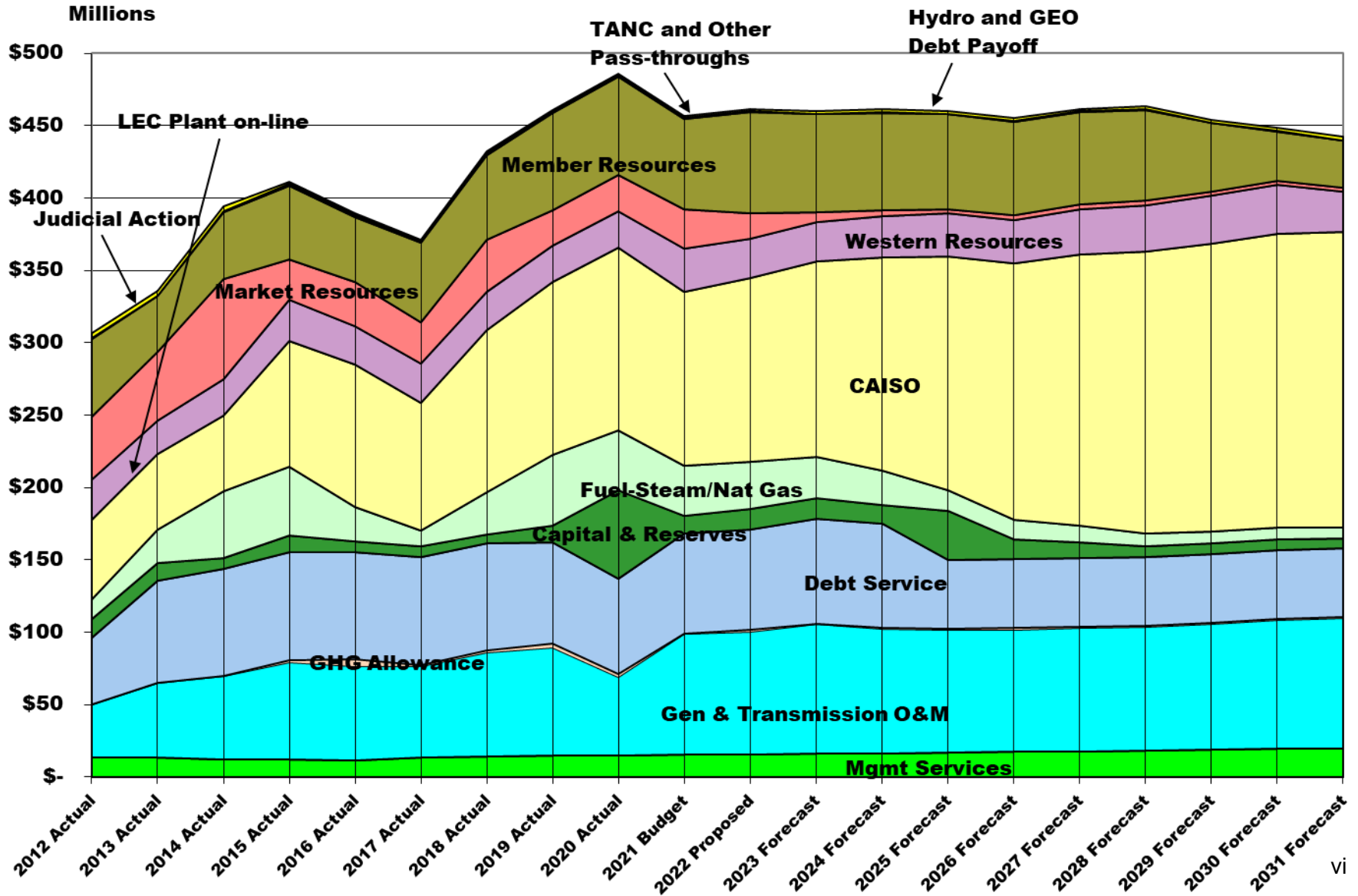
TOTAL NET ANNUAL BUDGET COST

119,995,200	126,572,671	6,577,471
-------------	-------------	-----------

4,075,312	3,897,707	(177,605)
460,000	300,000	(160,000)
(74,282)	(48,812)	25,470
11,281,224	11,789,724	508,500
(1,449,578)	(1,454,857)	(5,279)
225,137	193,709	(31,428)
918,490	970,127	51,637
262,365	303,475	41,110
15,698,668	15,951,073	252,405
1,590,641	1,717,765	127,124
42,235	47,000	4,765
(42,235)	(47,000)	(4,765)
502,928,108	533,320,982	30,392,874
(2,064,318)	(2,363,211)	(298,893)
(69,679,260)	(83,954,288)	(14,275,028)
-	-	-
\$ 431,184,530	\$ 447,003,483	\$ 15,818,953

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 \$77.8 million to \$85.6 million in 2022 (10.1% or \$7.9 million) primarily due to:

Increase net costs from:

- Decreases in Plants' Energy Sales from lower generation offset by higher forward prices (\$3.6 million, 2,584,675 MWh in FY 2021 vs 2,131,654 MWh in FY 2022)
- Increases in insurance costs due to tightening market conditions from wildfires and property losses (\$2.3 million)
- Increases in O&M Projects, Capital Projects and Maintenance reserve costs for primarily preventive maintenance to ensure generation plants continue to operate (\$5.3 million)
- Increases in other routine O&M costs to operate the plants (\$0.5 million)

Decrease net costs from:

- Decreased fuel costs for LEC and gas projects (\$1.7 million)
- Lower Capital Development Reserve collection to offset other project costs (\$2.1 million)

Generation Resources Cost Drivers

Costs to purchase power to serve member and customer loads are projected to increase from \$218.2 million to \$219.5 million (0.6% or \$1.3 million) due to:

- Net decreased Member Contracts costs less revenue (\$7.3 million)
- Net decreased Western Resources costs less revenue (\$4.5 million)
- Net decreased NCPA Contracts costs less revenue (\$5.1 million)
- Increased Load Aggregation costs, net of member owned generation CAISO energy sales (\$16.9 million)
- Increased GHG obligations (\$1.3 million) due to low allowance balances

Transmission Cost Drivers

Transmission Costs are projected to increase from \$120.0 million in FY 2021 to \$126.6 million in FY 2022 (\$6.6 million or 5.5%) due to:

- Budgeted increase of 9.77% in Ancillary Services Obligation costs and 7.73% in Transmission Access Charges offset by
- Decrease in gross load of 8,626,575 for FY 2021 to 8,483,186 for FY 2022 FY 2021



Management Services Cost Drivers

NCPA Management Services costs are projected to increase from \$15.70 million in FY 2021 to \$15.95 million in FY 2022 (\$252k or 1.6%):

- Salaries & Benefit increased - \$693k
- Non-personnel related costs reduced - \$230k
- Outside Services reduced - \$261k
- Changes in one-time capital projects (net increase of \$50k from 2021)

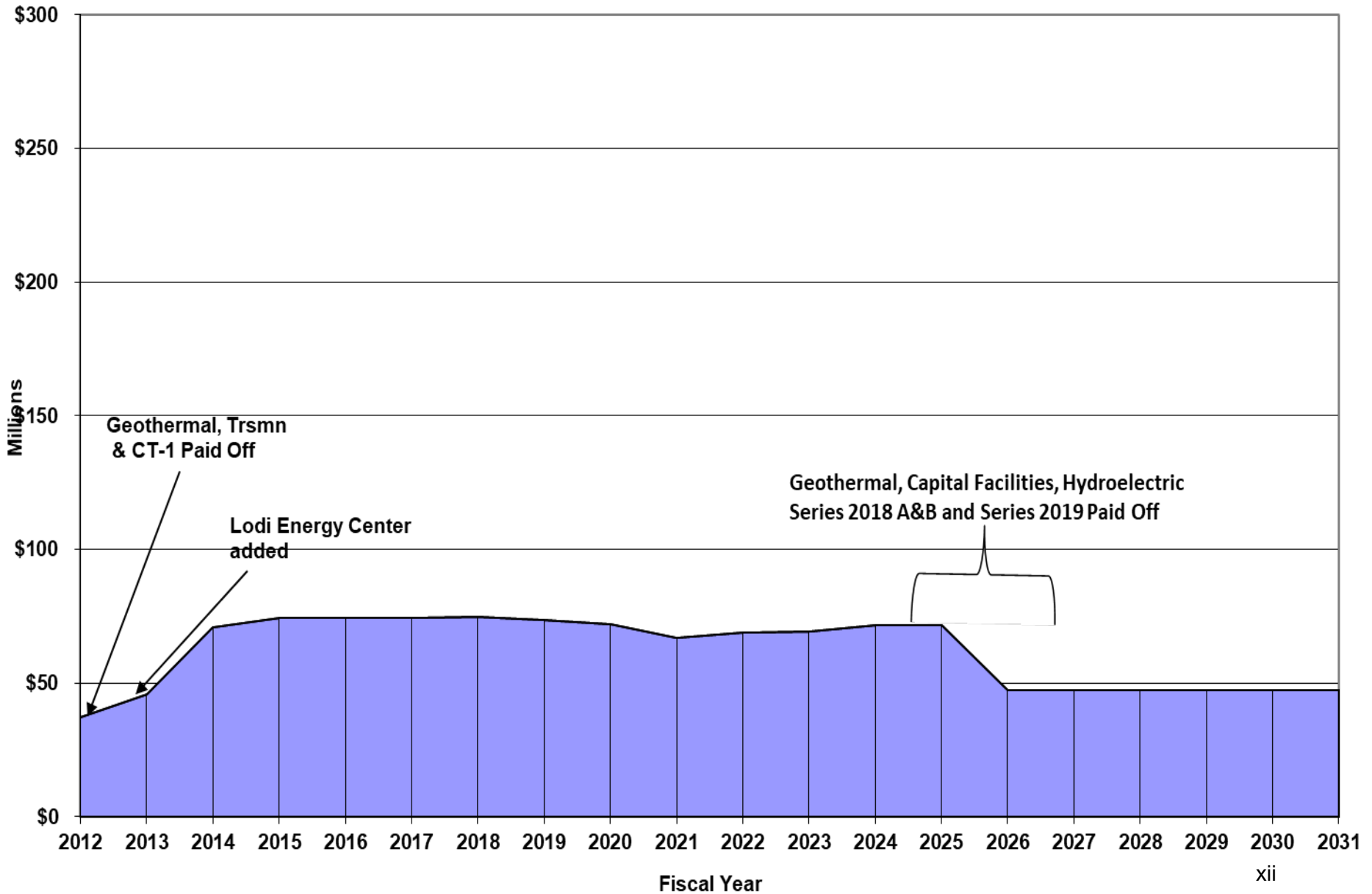
Other Drivers – Pass-through Costs

- Increase in TANC-PTO costs of \$121.0k
- Increase in Member Services projects of \$5.0k

BAMX



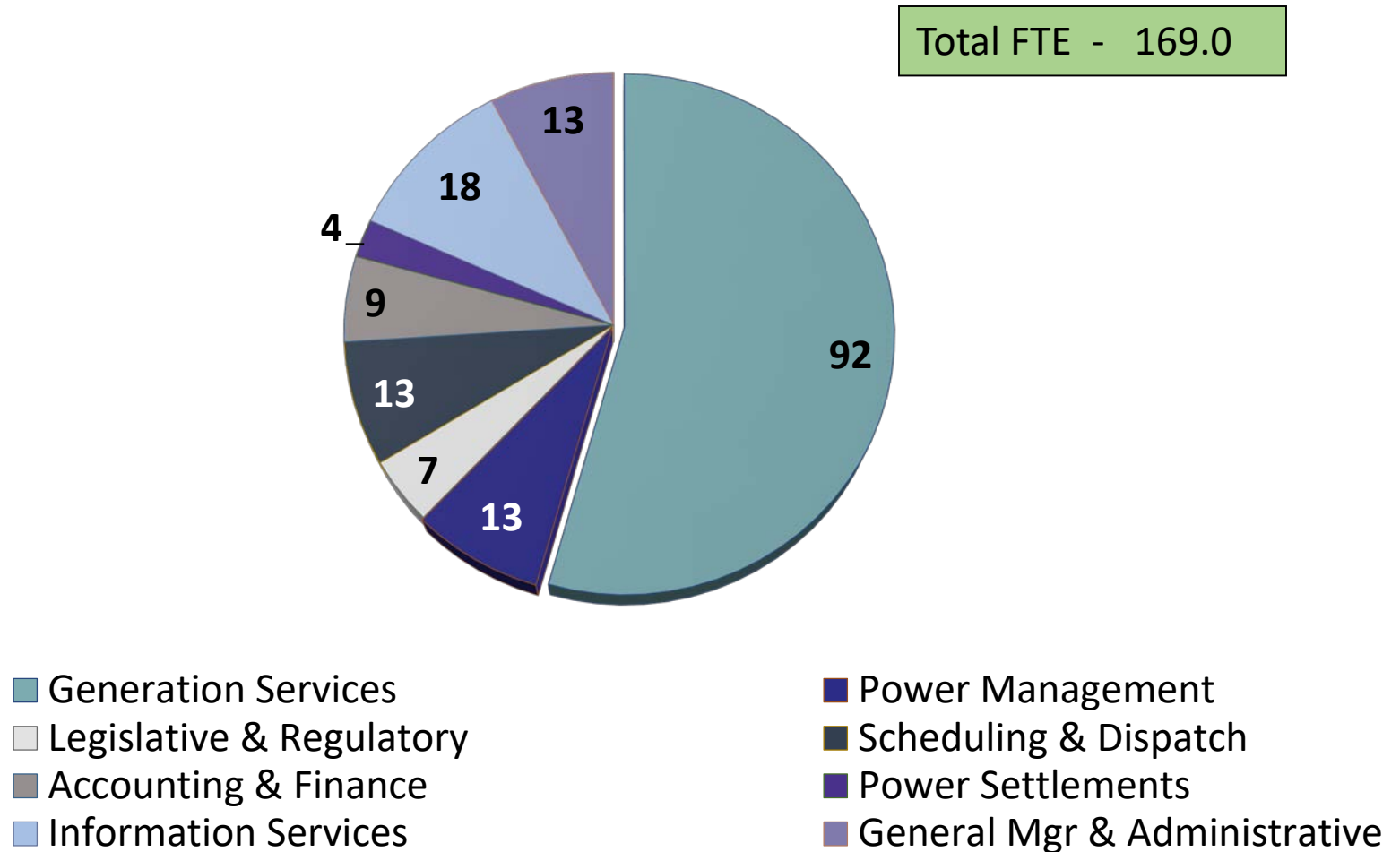
Northern California Power Agency Debt Service



Proposed Staffing by Department

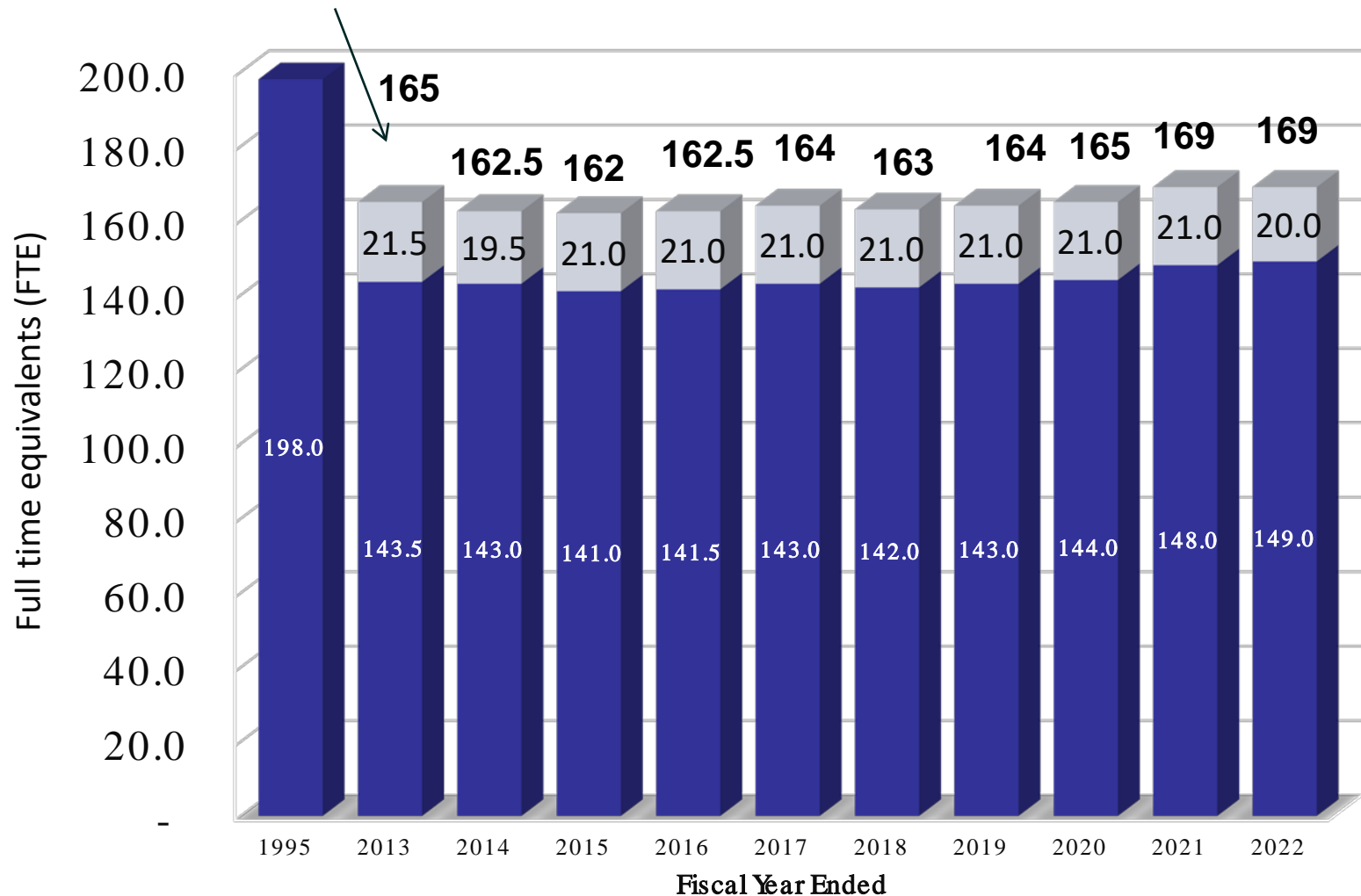
Proposed Budget FY 2021-22

Number of FTEs



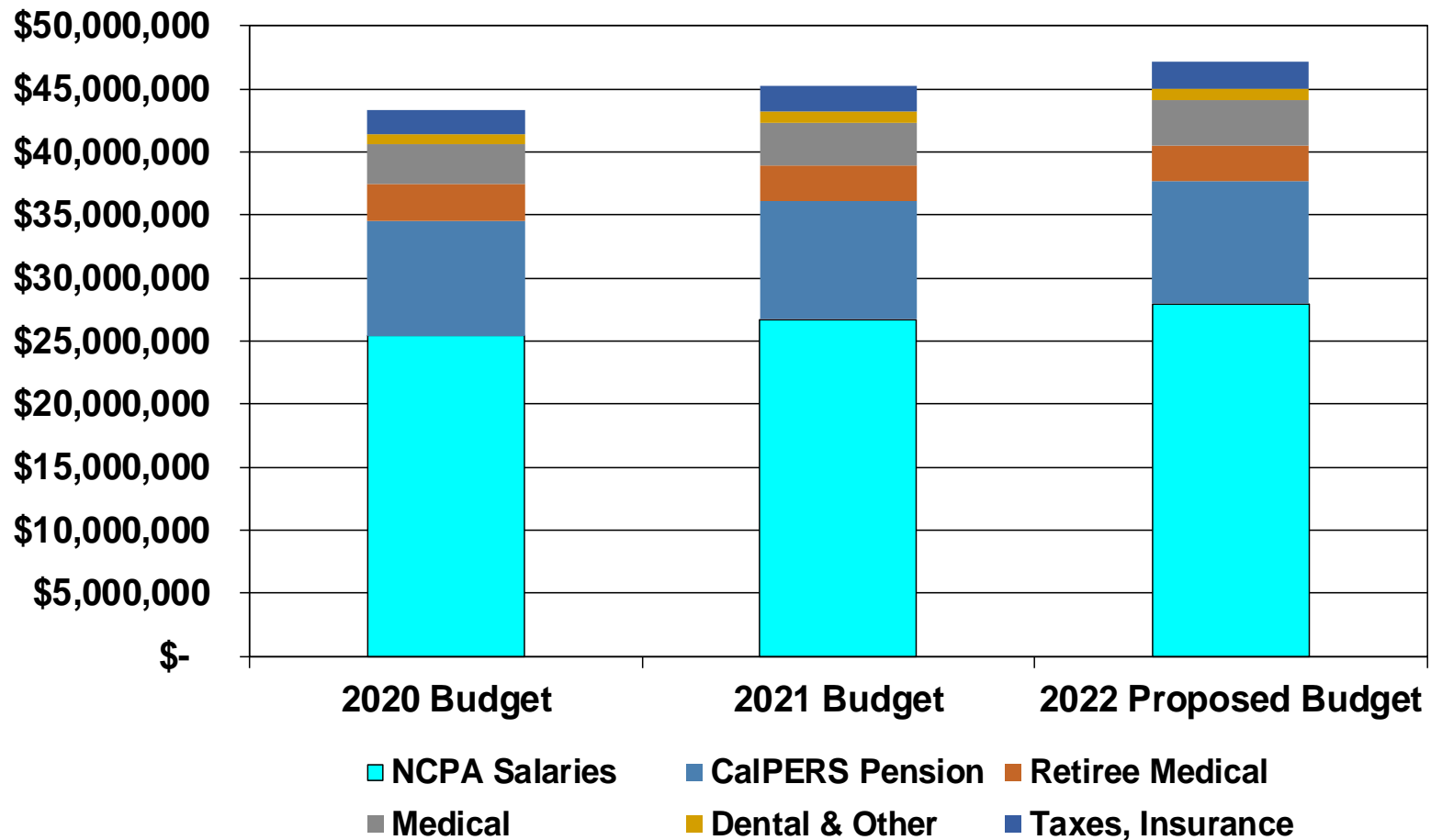
Historical and Proposed Staffing FTEs - Budget FY 2022

LEC additions/shifts in gray

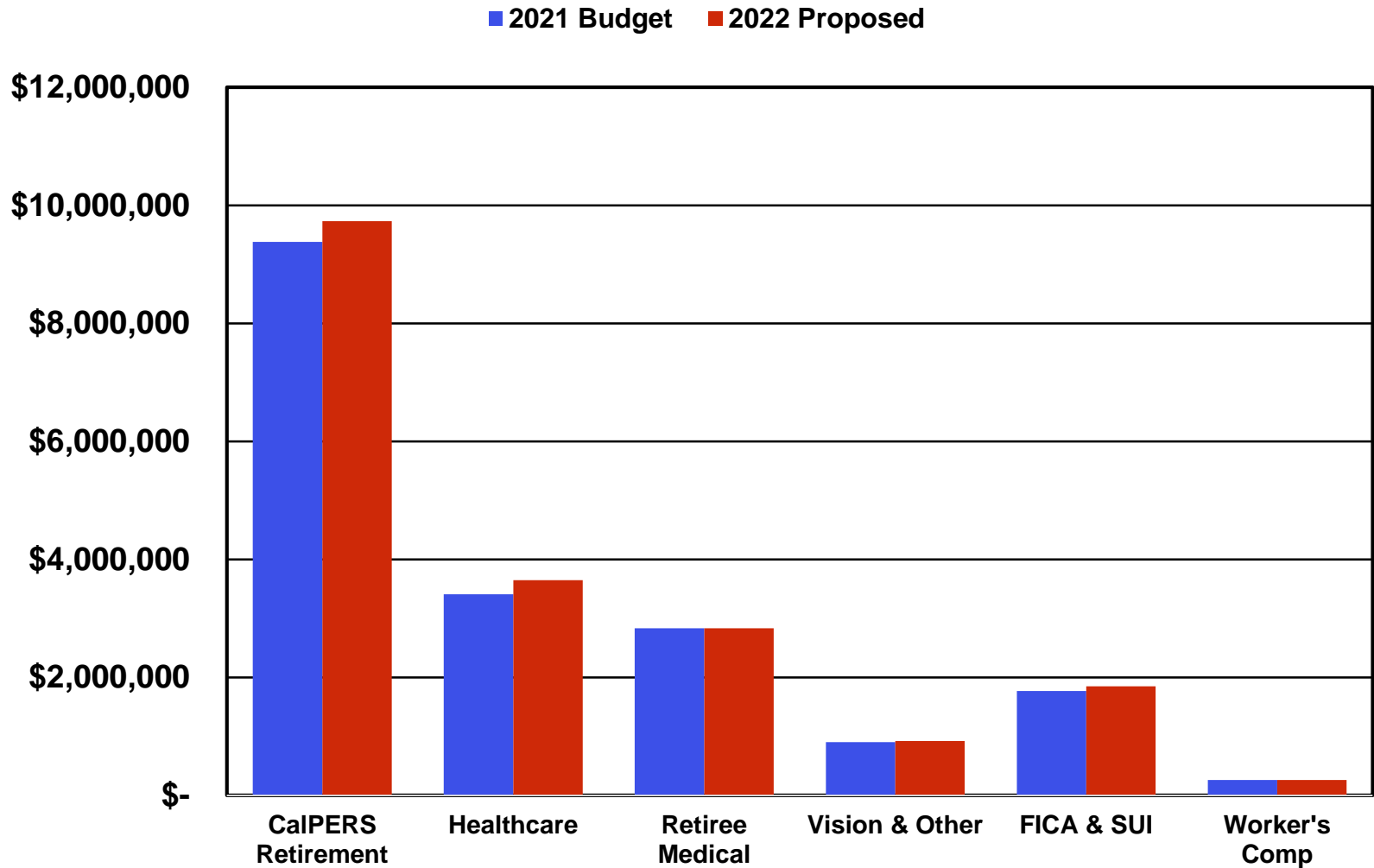


Salaries and Benefits Comparison to Prior Years

Salaries and Benefits are above prior year budget (4.2%). Key drivers are 4.6% wage increase, and 4.6% increase in pension and medical benefits.



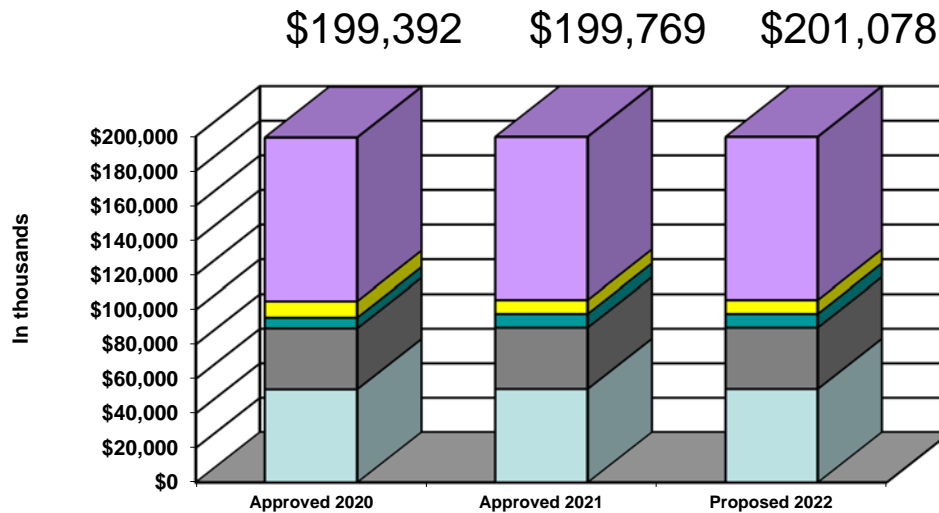
Benefit Changes 2021-2022



Proposed Budget

Generation Resources – NCPA Plants

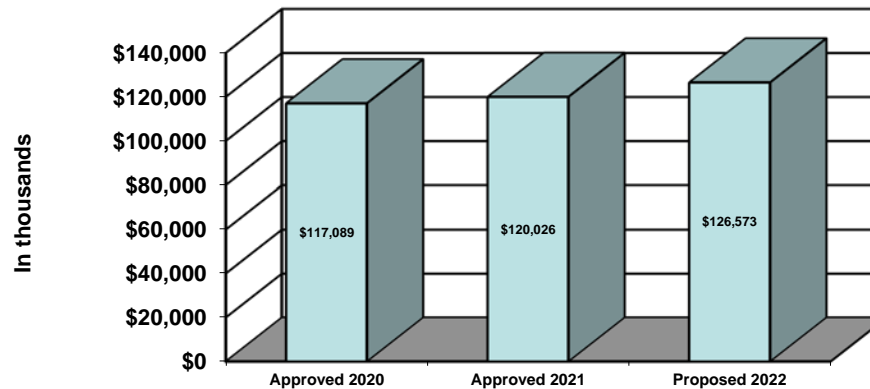
Proposed FY 2022 Budget reflects a \$1.3 million or 0.7% overall increase from FY 2021 on a gross basis.



Hydro Project Geo Plant CT 1 CT 2 Lodi Energy Center

Proposed Budget Transmission (Net CAISO Charges)

Proposed 2022 budget reflects an increase from 2021 of \$6.5 million or 5.5%

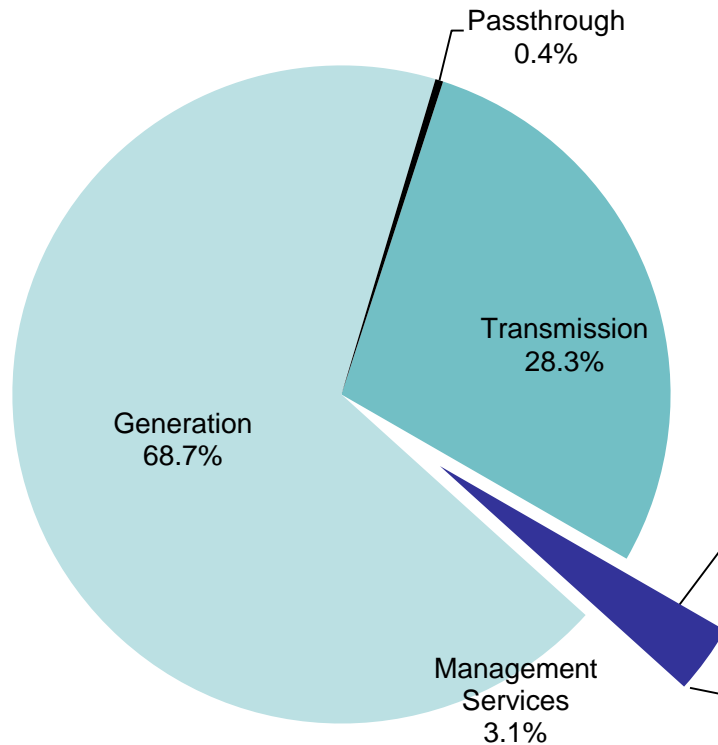


ISO

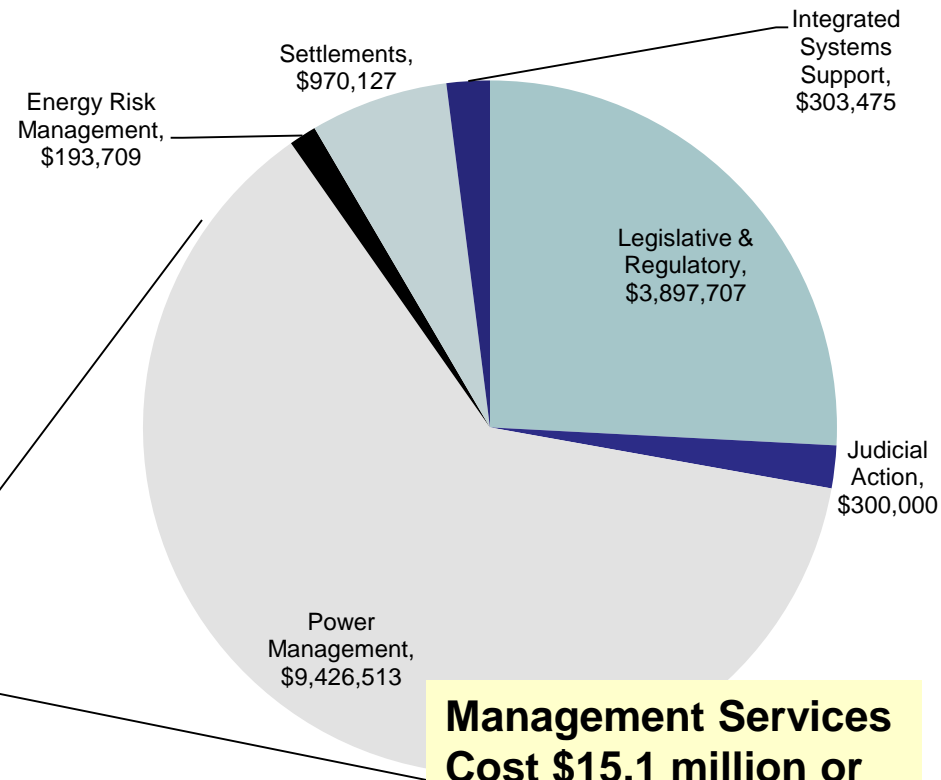
Proposed Budget Management Services

Proposed FY 2022 Net Budget reflects increase of \$15.8M from FY 2021 budget due to increases in load costs

NCPA Budget



Management Services

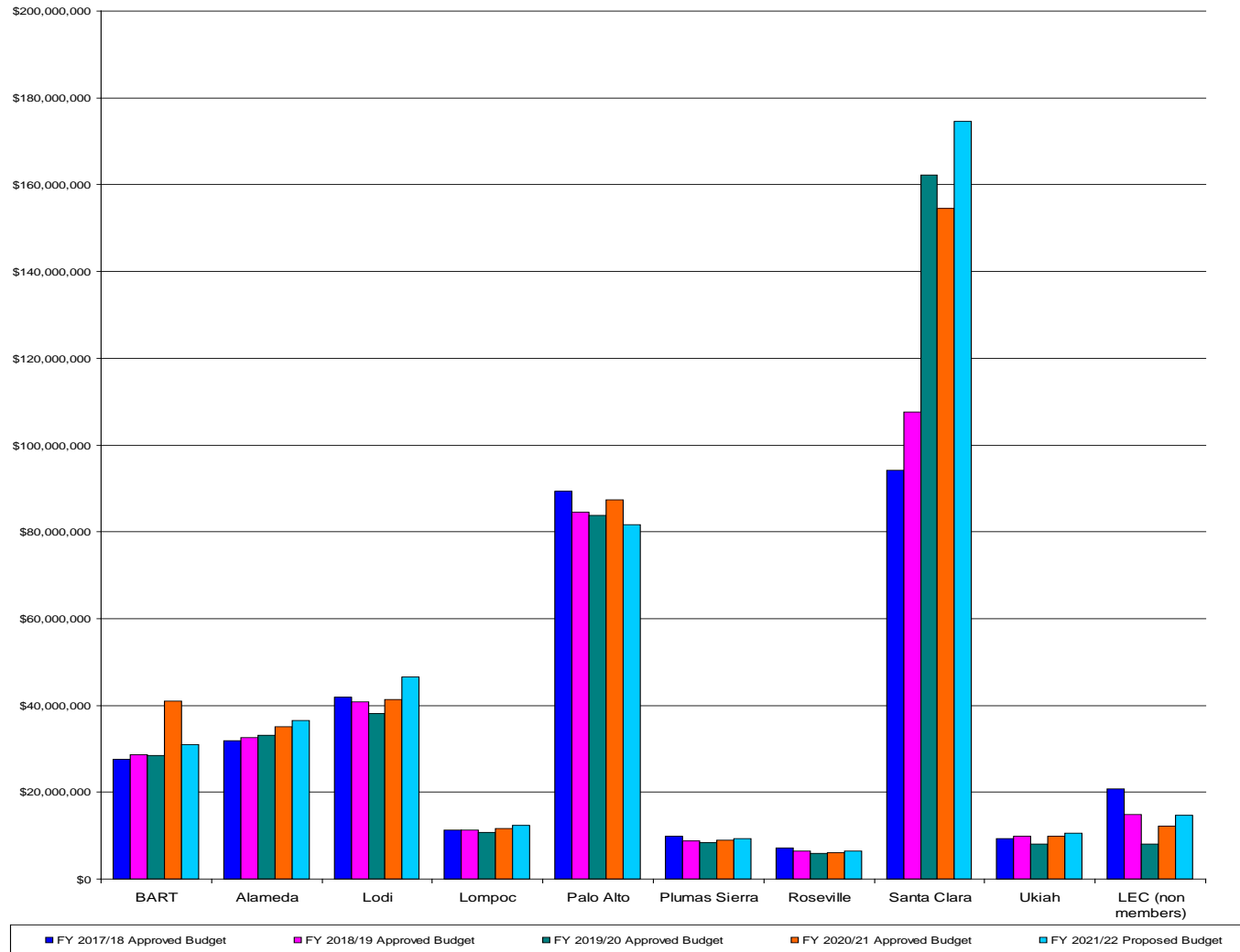


**Management Services
Cost \$15.1 million or
3.4% of total**

Total Annual Budget Cost \$447.0 Million

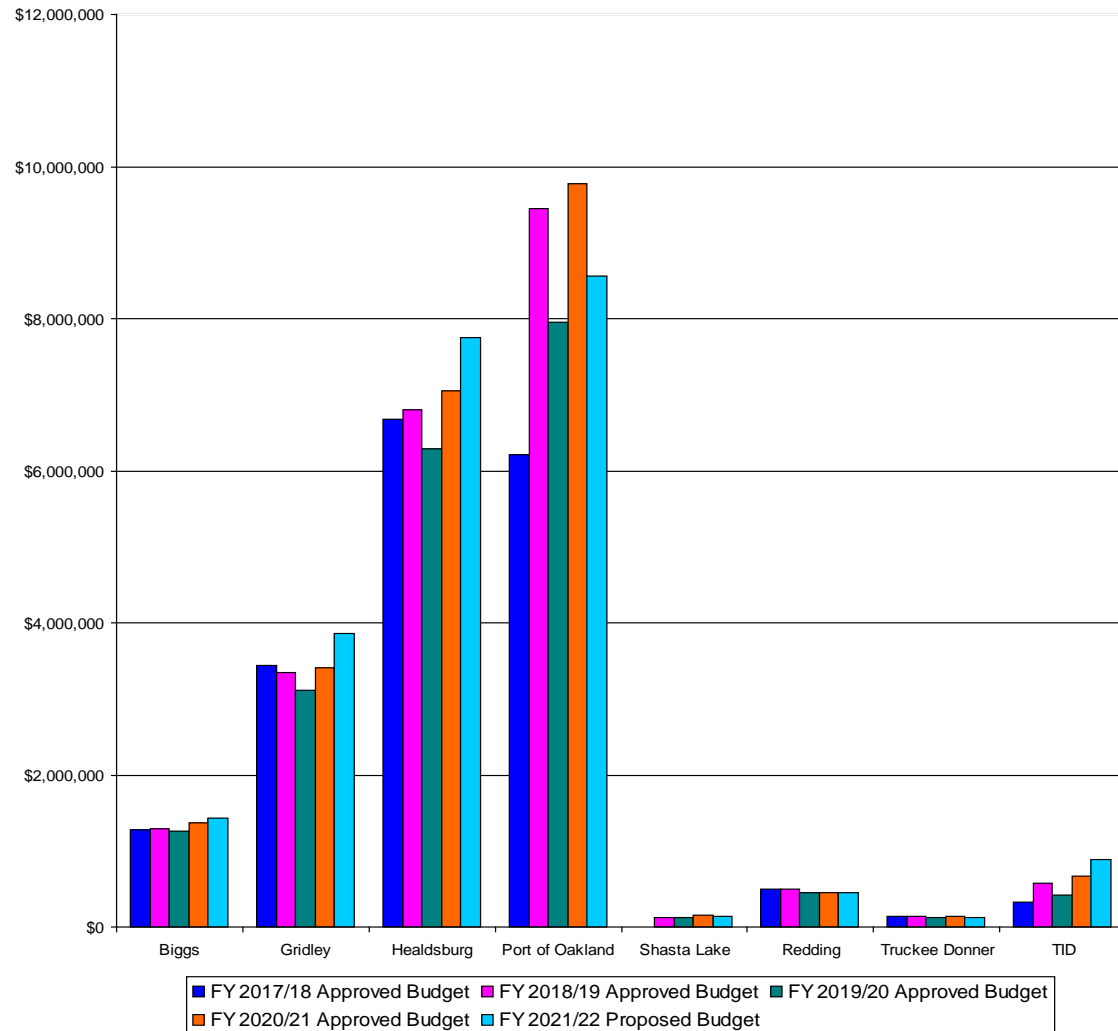
Participant Funding Requirements (Net) Budget FY 2021/22

Participants (1 of 2)



Participant Funding Requirements (Net) Budget FY 2021/22

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
2021	Proposed 2022		
\$ 29,166,842	\$ 29,122,615	\$ (44,227)	-0.2%
8,505,825	11,839,475	3,333,650	39.2%
6,572,178	5,755,113	(817,065)	-12.4%
5,617,806	5,640,565	22,759	0.4%
27,923,503	33,283,101	5,359,598	19.2%
77,786,154	85,640,869	7,854,715	10.1%
26,077,618	19,326,063	(6,751,555)	-25.9%
118,503	(430,986)	(549,489)	-463.7%
2,195,349	(2,319,736)	(4,515,085)	-205.7%
8,470,873	3,342,418	(5,128,455)	-60.5%
250,995,102	282,244,061	31,248,959	12.5%
-	1,276,784	1,276,784	100.0%
287,857,445	303,438,604	15,581,159	5.4%
365,643,599	389,079,473	23,435,874	6.4%

TRANSMISSION

Independent System Operator

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

TOTAL TRANSMISSION

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

2,674,231	2,417,506	(256,725)	-9.6%
112,635,612	119,362,830	6,727,218	6.0%
3,750,031	3,846,319	96,288	2.6%
935,326	946,016	10,690	1.1%
119,995,200	126,572,671	6,577,471	5.5%

2,177,174	2,098,426	(78,748)	-3.6%
714,164	632,824	(81,340)	-11.4%
713,150	691,028	(22,122)	-3.1%
470,824	475,429	4,605	1.0%
4,075,312	3,897,707	(177,605)	-4.4%
460,000	300,000	(160,000)	-34.8%
(74,282)	(48,812)	25,470	-34.3%
2,613,276	3,185,801	572,525	21.9%
2,796,676	2,964,291	167,616	6.0%
1,124,773	1,012,356	(112,417)	-10.0%
212,588	246,588	34,000	16.0%
6,747,312	7,409,036	661,724	9.8%

**NORTHERN CALIFORNIA POWER AGENCY
ANNUAL BUDGETS**

Continued

	FISCAL YEAR ENDED JUNE 30			
	2021	Proposed 2022	Inc/(Dec)	Budget %
Forecasting Planning, Prescheduling & Trading				
Forecasting	680,124	601,284	(78,840)	-11.6%
Resource Planning, Optimization, Risk Analysis & Mgmt.	654,475	610,587	(43,888)	-6.7%
Power & Fuel Transactions	152,852	151,599	(1,253)	-0.8%
Pre-Scheduling	869,168	858,282	(10,886)	-1.3%
Power Pool Oper. & Settlement Standards	376,012	389,306	13,294	3.5%
Facilities Agreement Administration	191,183	189,100	(2,083)	-1.1%
Subtotal	2,923,813	2,800,158	(123,655)	-4.2%
Industry Restructuring & Regulatory Affairs	422,722	420,751	(1,971)	-0.5%
Contract Admin, interconnection Svcs & External Affairs:				
Contract Maint, Negotiation and Administration & Litigation	703,475	676,524	(26,951)	-3.8%
TANC Representation & Advocacy	30,543	31,112	569	1.9%
Western Representation & Advocacy	144,905	145,389	483	0.3%
Pooling Agreement Coordination and Administration	114,994	115,596	602	0.5%
Subtotal	993,918	968,621	(25,297)	-2.5%
Green Power Project	-	-	-	0.0%
Gas Purchase Program	81,377	80,418	(959)	-1.2%
Market Purchase Power Project	112,082	110,740	(1,342)	-1.2%
Power Management Direct Cost to Programs	(1,449,578)	(1,454,857)	(5,279)	0.4%
Subtotal - Power Management	9,831,646	10,334,867	503,221	5.1%
Energy Risk Management				
ROC, RMC Meetings & Activities	51,050	45,271	(5,780)	-11.3%
Counter-party Credit Review & Analysis	174,087	148,438	(25,648)	-14.7%
Subtotal	225,137	193,709	(31,428)	-14.0%
Settlements				
Deal Control Validation & Monitoring	347,316	423,877	76,561	22.0%
ISO Data Validation & Monitoring	571,174	546,250	(24,924)	-4.4%
Subtotal	918,490	970,127	51,637	5.6%
Integrated Systems Support	262,365	303,475	41,110	15.7%
TOTAL MANAGEMENT SERVICES	15,698,668	15,951,073	252,405	1.6%
<u>PARTICIPANT PASS THROUGH COSTS (TANC, DUES, ETC)</u>	1,590,641	1,717,765	127,124	8.0%
<u>SUPPORT SERVICES</u>	42,235	47,000	4,765	11.3%
<u>SUPPORT SERVICES REIMBURSEMENTS</u>	(42,235)	(47,000)	(4,765)	11.3%
TOTAL NET ANNUAL BUDGET COST	\$ 502,928,108	\$ 533,320,982	\$ 30,392,874	6.0%
OTHER THIRD PARTY REVENUE				
PM Service Revenue (Allocated via Nexant methodology)	1,857,886	2,126,890	269,004	14.5%
PM Service Revenue (Allocated via A&G methodology)	206,432	236,321	29,889	14.5%
Member Owned Generation ISO Energy Revenue	69,679,260	83,954,288	14,275,028	20.5%
Subtotal	71,743,578	86,317,499	14,573,921	20.3%
TOTAL ADJUSTED NET ANNUAL BUDGET COST	\$ 431,184,530	\$ 447,003,483	\$ 15,818,953	3.7%

Generation Services

FY 2022
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 and 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 49.9 MW CT2 modified steam injected natural gas plant (STIG) in Lodi became operational. Finally in 2012, the Lodi Energy

Center (LEC), a combined-cycle fast-start and flexible natural gas plant, became operational. LEC is rated at 304 MW and represents the largest 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 236,000 households (based on EIA's 11,000 kwh per year per household ¹). 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 NCPA Headquarter office located in Roseville. 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 2022 is \$11,339,233, 14.6% above the FY 2021 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 2022			Proposed FY 2021		
TOTAL All Plants	\$	41.81	based on total generation of 2,131,654 MWh	\$	30.10	based on total generation of 2,548,675 MWh
Hydro	\$	67.99	based on 477,404 MWh	\$	57.36	based on 508,507 MWh
Geothermal	\$	17.19	based on 686,432 MWh	\$	11.52	based on 738,552 MWh
CT 1	\$	553.07	based on 10,438 MWh	\$	420.19	based on 15,641 MWh
CT 2	\$	478.66	based on 12,003 MWh	\$	1,126.49	based on 4,987 MWh
LEC	\$	35.28	based on 945,377 MWh	\$	21.20	based on 1,316,988 MWh

Ownership of these facilities vary by its members and other public entities who are not members of NCPA. NCPA is constantly optimizing the use of these facilities to achieve the greatest value by:

- Providing the least cost energy to its members.
- Protecting against total reliance on market purchases and volatility.
- Selling energy into the CAISO markets to minimize the energy costs to members.
- Generating renewable, carbon free energy from its geothermal and hydro resources to reduce greenhouse gas.
- Providing Resource Adequate capacity, spinning reserve, and regulation to the CAISO market.
- Supporting local capacity needs.

Over time, additional capital expenditures for equipment replacement and betterment are required to maintain or improve the facilities. GS has adopted a process to evaluate cost vs benefits to ensure that these projects are economically justified. Each project will support improvement reliability, output, or replacement of “end of life” 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 are planned over a 10-year forecast for all facilities. Funding for these projects are approved through the NCPA budgeting approval process.

Reference:

1 - <https://www.eia.gov/energyexplained/use-of-energy/electricity-use-in-homes.php>

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 net generating capacity is 253 MW (current ISO rating). The project features are located in Calaveras, Tuolumne and Alpine Counties.

Current Operating Philosophy

The 259 MW (gross) plants are forecasted to generate 477 GWH for the 2021-2022 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 some circumstances, it may be economically advantageous to allow McKays Point Reservoir to spill for brief periods while providing ancillary services from the Collierville Powerhouse.

Business Plan

The Hydro Facilities FY 2022 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 capacity, load-following capability, and reliable, renewable and/or carbon-free 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 2022 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 2022 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.

NCPA Plants #1 and #2 were down several times during FY 2021 due to wildfire and transmission line outages, PG&E Public Safety Power Shut-off (PSPS) events, and routine maintenance. Unit #4 had extensive repairs made to its turbine rotor in April 2020 while new steam ejectors were also installed to improve the gas handling capability.

Current Operations

The Geothermal Facility is expected to average 89 gross megawatts or 79 MW net 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 2022 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 2022
- 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 686,432 net MWhrs in FY 2022

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 404,541 MWhrs for Plant #1 and 281,891 MWhrs for Plant #2 for a total of 686,432 MWhrs net during the FY 2022 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 having been shutdown since April 2010. 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, environmentally 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. To that end, Staff are monitoring the developments of green hydrogen technology and its suitability to the Combustion Turbine Projects.

Legislative & Regulatory

FY 2022
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 2022 Budget Framed by NCPA's Legislative & Regulatory Affairs Program's Strategic Goals

In December 2020, the NCPA Legislative and Regulatory Affairs Committee approved its Strategic Plan for the 2021 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 2022. 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 2022

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 2022 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 2022
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 31st 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 25th 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

GEOHERMAL 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 304.0 MW Nameplate Unit

SITE BUILDING & WAREHOUSE FACILITY - Lodi, CA

**Northern California Power Agency
Generation Resources - NCPA Plants Plant Transmission
FY 2022 Budget**

	Hydro Project	Geothermal	CT No.1	CT No.2	LEC	Gen Svcs Shared	Proposed FY 2022	FY 2021	Increase/ (Decrease)
Variable Costs									
Variable	-	900,000	21,500	158,633	3,601,753	-	4,681,886	6,378,412	(1,696,526)
CA ISO Charges	263,616	284,008	4,606	5,227	470,645	-	1,028,102	1,449,811	(421,709)
CA ISO Energy Purchases	2,371,322	219,554	85,097	130,703	2,666,658	-	5,473,334	5,664,624	(191,290)
GHG Allowance Costs	-	-	-	104,146	6,268,971	-	6,373,117	8,738,588	(2,365,471)
Fuel & LDC Costs	-	-	791,613	582,163	31,029,301	-	32,403,077	34,089,615	(1,686,538)
Pipeline Transport Costs	-	-	-	683,206	-	-	683,206	706,558	(23,352)
Steam Royalties	-	1,300,000	-	-	-	-	1,300,000	1,432,387	(132,387)
Total Variable	2,634,938	2,703,562	902,816	1,664,079	44,037,328	-	51,942,723	58,459,995	(6,517,272)
Routine O&M Costs									
Fixed	1,581,100	5,133,615	952,017	510,014	2,989,071	117,500	11,283,317	10,579,864	703,453
Cloud Seeding	424,000	-	-	-	-	-	424,000	408,000	16,000
Administration	145,721	503,100	45,072	50,965	216,277	22,010	983,145	956,102	27,043
Mandatory Costs	1,745,500	360,000	198,977	78,423	312,245	-	2,695,145	2,639,535	55,610
Inventory	-	-	45,000	15,000	-	-	60,000	60,000	-
Transmission O&M	378,500	75,000	-	-	-	-	453,500	488,500	(35,000)
Routine O&M Costs w/o Labor	4,274,821	6,071,715	1,241,066	654,402	3,517,593	139,510	15,899,107	15,132,000	767,107
Labor	5,607,479	11,731,723	1,255,597	972,867	6,040,384	1,314,619	26,922,669	25,680,870	1,241,799
Total Routine O&M Costs	9,882,300	17,803,438	2,496,663	1,627,269	9,557,977	1,454,129	42,821,776	40,812,870	2,008,906
Other Plant Costs									
Fuel Administrative Costs	-	-	25,614	19,381	-	-	44,995	38,182	6,813
Debt Service	33,421,637	4,953,453	-	5,048,000	26,008,267	-	69,431,357	69,188,721	242,636
Water for Power	225,000	-	-	-	-	-	225,000	250,000	(25,000)
Insurance	2,033,164	1,412,779	247,528	171,655	1,576,482	-	5,441,608	3,097,064	2,344,544
Decommissioning	-	1,647,648	-	-	-	-	1,647,648	1,684,404	(36,756)
Other Costs	90,277	1,278,382	5,400	12,520	128,171	94,751	1,609,501	1,559,580	49,921
Generation Services Shared	330,942	719,698	77,087	56,320	364,833	(1,548,880)	-	-	-
Administrative & General	1,997,915	3,938,412	726,376	316,855	2,133,321	-	9,112,879	9,080,413	32,466
Power Management Allocated Costs	-	-	-	-	1,503,669	-	1,503,669	1,523,860	(20,191)
Total Other Plant Costs	38,098,935	13,950,372	1,082,005	5,624,731	31,714,743	(1,454,129)	89,016,657	86,422,224	2,594,433
Total O&M Costs	50,616,173	34,457,372	4,481,484	8,916,079	85,310,048	-	183,781,156	185,695,089	(1,913,933)
Projects									
Operations & Maintenance	1,075,000	1,100,000	1,513,200	39,800	1,375,308	-	5,103,308	3,780,956	1,322,352
General & Plant	65,000	-	-	-	-	-	65,000	65,000	-
Capital	-	1,175,000	60,000	6,500	1,756,500	-	2,998,000	715,000	2,283,000
Maintenance Reserve	-	3,930,000	1,000,000	-	1,875,102	-	6,805,102	5,138,332	1,666,770
Capital Development Reserve	2,325,000	-	-	-	-	-	2,325,000	4,375,000	(2,050,000)
Total Projects Costs	3,465,000	6,205,000	2,573,200	46,300	5,006,910	-	17,296,410	14,074,288	3,222,122
Annual Budget Cost	54,081,173	40,662,372	7,054,684	8,962,379	90,316,958	-	201,077,566	199,769,377	1,308,188

**Northern California Power Agency
Generation Resources - NCPA Plants Plant Transmission
FY 2022 Budget**

	Hydro Project	Geothermal	CT No.1	CT No.2	LEC	Gen Svcs Shared	Proposed FY 2022	FY 2021	Increase/ (Decrease)
Less: Third Party Revenues									
ISO Energy Sales	22,047,340	27,577,856	1,299,571	1,320,850	49,394,211	-	101,639,828	105,258,271	(3,618,442)
Ancillary Services Sales	2,241,230	-	-	-	1,152,080	-	3,393,310	3,988,092	(594,782)
Transmission Sales	-	110,376	-	-	-	-	110,376	110,376	-
Effluent Revenues	-	750,000	-	-	-	-	750,000	750,000	-
Fuel and Pipeline Transport Credits	-	-	-	1,788,156	-	-	1,788,156	1,820,720	(32,565)
GHG Allowance Credits	-	-	-	104,146	6,101,721	-	6,205,867	8,506,604	(2,300,738)
Interest Income	669,988	382,165	-	108,662	385,845	-	1,546,660	1,546,660	-
Other Income	-	2,500	-	-	-	-	2,500	2,500	-
	<u>24,958,558</u>	<u>28,822,897</u>	<u>1,299,571</u>	<u>3,321,813</u>	<u>57,033,857</u>	<u>-</u>	<u>115,436,696</u>	<u>121,983,223</u>	<u>(6,546,527)</u>
Net Annual Budget Cost to Participants	29,122,615	11,839,475	5,755,113	5,640,566	33,283,101	-	85,640,869	77,786,154	7,854,715
Plant Cost	51,081,716	40,580,519	7,054,684	8,962,379	90,316,958	-	197,996,256	196,647,276	1,348,979
Plant Transmission Cost	2,999,457	81,853	-	-	-	-	3,081,310	3,122,101	(40,791)
	<u>54,081,173</u>	<u>40,662,372</u>	<u>7,054,684</u>	<u>8,962,379</u>	<u>90,316,958</u>	<u>-</u>	<u>201,077,566</u>	<u>199,769,377</u>	<u>1,308,188</u>
Variable Costs	2,634,938	2,703,562	902,816	1,664,079	44,037,328	-	51,942,723	58,459,995	(6,517,272)
Fixed Costs	51,446,235	37,958,810	6,151,868	7,298,300	46,279,630	-	149,134,843	141,309,382	7,825,460
	<u>54,081,173</u>	<u>40,662,372</u>	<u>7,054,684</u>	<u>8,962,379</u>	<u>90,316,958</u>	<u>-</u>	<u>201,077,566</u>	<u>199,769,377</u>	<u>1,308,188</u>
Net Annual Generation (Mwh)	477,404	686,432	10,438	12,003	945,377	-	2,131,654	2,584,675	(453,021)

Hydroelectric Project No. One

FY 2022

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 259 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 contracted with CCWD and 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, 2020, New Spicer Reservoir contained approximately 70,977 acre feet of storage, which is slightly below 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 of approximately \$250,000. Maintenance Reserves have been established to both fund and partially pay for:

- Anticipated costs of estimated scheduled overhauls;
- Deductible portion of an insured loss (currently \$977,500 for a Property Damage loss and \$1,877,500 for a Wildfire 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 2020, Capital Development Reserve funds were spent on the Collierville Generator Rewind Project and also on the 230KV Wildfire Mitigation Project. At the end of FY 2020, the Initial Facilities Account and Capital Development Reserve account had an approximate total combined balance of \$21.5 million. An additional \$4,250,000 is being collected in FY2021, and an additional \$5,500,000 is proposed for collection in FY 2022. The cost to partially clean out the McKays Dam Reservoir is anticipated to range from \$30,000,000 to potentially more than \$80,000,000.

Project Asset

In addition to the proposed \$5,500,000 contribution to the Capital Development Reserve account, the Hydro FY 2022 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, a FERC mandated 5-year Independent Consultant Dam Safety (Part 12) Study of Utica and Alpine Dams, and cooling water pump and network infrastructure improvements.

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Variable						
CA ISO Charges (variable)	\$3,464,701	\$2,648,498	\$2,615,242	\$1,367,909	\$2,634,938	\$19,696
Total Variable	3,464,701	2,648,498	2,615,242	1,367,909	2,634,938	19,696
Routine O&M Costs w/o Labor						
Fixed	1,490,500	1,287,001	1,502,000	668,822	1,581,100	79,100
Cloud Seeding	290,000	453,439	408,000	63,127	424,000	16,000
Administration	156,393	168,883	147,350	30,181	145,721	(1,629)
Mandatory Costs	1,649,500	1,537,439	1,719,500	502,658	1,745,500	26,000
Transmission O & M	369,000	563,411	403,500	81,187	378,500	(25,000)
Total Routine O&M Costs w/o Labor	3,955,393	4,010,173	4,180,350	1,345,975	4,274,821	94,471
Labor	5,220,337	4,836,019	5,389,265	2,395,717	5,607,479	218,214
Total Routine O&M Costs	9,175,730	8,846,192	9,569,615	3,741,692	9,882,300	312,685
Other Costs						
Water for Power	175,000	147,789	250,000	127,020	225,000	(25,000)
Debt Service	33,306,862	32,350,331	33,388,263	16,694,131	33,421,637	33,374
Insurance	928,011	1,052,343	1,140,995	516,228	2,033,164	892,169
Other Costs	101,853	44,925	86,084	25,021	90,277	4,193
Generation Services Shared	313,623	301,725	330,392	154,651	330,942	550
Administrative & General	1,833,321	1,608,694	1,999,779	807,269	1,997,915	(1,864)
Total Other Costs	36,658,670	35,505,807	37,195,513	18,324,320	38,098,935	903,422
Total O&M Costs	49,299,101	47,000,497	49,380,370	23,433,921	50,616,173	1,235,803
Projects						
Operations & Maintenance	260,000	267,289	440,000	221,621	1,075,000	635,000
General & Plant	60,000	47,713	65,000	0	65,000	0
Capital Development Reserve	4,455,000	4,455,000	4,375,000	2,187,500	2,325,000	(2,050,000)
Total Projects Costs	4,775,000	4,770,002	4,880,000	2,409,121	3,465,000	(1,415,000)
Annual Budget Cost	54,074,101	51,770,499	54,260,370	25,843,042	54,081,173	(179,197)
Less: Third Party Revenues						
ISO Energy Sales	23,455,277	19,582,319	22,147,432	10,838,522	22,047,340	(100,092)
Ancillary Services Sales	2,539,212	1,890,989	2,276,106	2,118,238	2,241,230	(34,876)
Interest Income	669,988	495,979	669,988	101,322	669,988	0
Other Revenues	0	466,165	0	0	0	0
	26,664,477	22,435,452	25,093,526	13,058,082	24,958,558	(134,968)
Net Annual Budget Cost to Participants	\$27,409,624	\$29,335,047	\$29,166,844	\$12,784,960	\$29,122,615	(\$44,229)

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Total Plant Budget Cost	\$51,099,153	\$48,676,406	\$51,231,936	\$24,454,142	\$51,080,649	(\$151,287)
Total Transmission Budget Cost	2,974,948	3,094,093	3,028,434	1,388,900	3,000,524	(27,910)
	<u>\$54,074,101</u>	<u>\$51,770,499</u>	<u>\$54,260,370</u>	<u>\$25,843,042</u>	<u>\$54,081,173</u>	<u>(\$179,197)</u>
Variable Costs	\$3,464,701	\$2,648,498	\$2,615,242	\$1,367,909	\$2,634,938	\$19,696
Fixed Costs	50,609,400	49,122,001	51,645,128	24,475,133	51,446,235	(198,893)
	<u>\$54,074,101</u>	<u>\$51,770,499</u>	<u>\$54,260,370</u>	<u>\$25,843,042</u>	<u>\$54,081,173</u>	<u>(\$179,197)</u>
Net Annual Generation (MWh)	508,897	441,663	508,507	107,834	477,404	(31,103)
Net Annual Budget Costs per MWh	\$54	\$66	\$57	\$119	\$61	\$4
Variable Costs per MWh	\$7	\$6	\$5	\$13	\$6	\$0
Fixed Costs per KW Month	\$17	\$16	\$17	\$8	\$17	(\$0)

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

Project	Notes	Total	Current FY 2021	Proposed 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	Forecast FY 2031
Operations & Maintenance (O&M)													
11563 Part 12 Study	M	525,000	\$ -	\$ 275,000	\$ -	\$ -	\$ -	\$ -	250,000	\$ -	\$ -	\$ -	-
2409 Part 12 Study	M	525,000	-	-	-	-	250,000	-	-	-	-	275,000	-
Control System Hardware Upgrade	D	90,000	90,000	-	-	-	-	-	-	-	-	-	-
Lake Alpine LLO Improvements	D	100,000	100,000	-	-	-	-	-	-	-	-	-	-
CV Transformer Maintenance	D	400,000	100,000	150,000	150,000	-	-	-	-	-	-	-	-
Union Dam Maintenance	M	450,000	150,000	150,000	150,000	-	-	-	-	-	-	-	-
Lake Alpine Dam Maintenance	M	400,000	-	400,000	-	-	-	-	-	-	-	-	-
CV Switchyard Ground Clearance	D	50,000	-	50,000	-	-	-	-	-	-	-	-	-
CV Cooling Water Pumps	M	105,000	-	35,000	35,000	35,000	-	-	-	-	-	-	-
SCADA Upgrade	D	100,000	-	-	100,000	-	-	-	-	-	-	-	-
CV Turbine Instrumentation Upgrade	D	50,000	-	-	50,000	-	-	-	-	-	-	-	-
Murphys HVAC	D	35,000	-	-	35,000	-	-	-	-	-	-	-	-
Clark Creek Drainage	M	750,000	-	-	-	750,000	-	-	-	-	-	-	-
CV Tunnel Intake Transfer Trip	D	100,000	-	-	-	100,000	-	-	-	-	-	-	-
CV Units Beckwith Generator Protection	D	50,000	-	-	-	50,000	-	-	-	-	-	-	-
CV MCC Breakers	D	575,000	-	-	-	-	575,000	-	-	-	-	-	-
Paint CV Crane & Bridge	M	250,000	-	-	-	-	-	250,000	-	-	-	-	-
Hydro Network Infrastructure Improvement	D	15,000	-	15,000	-	-	-	-	-	-	-	-	-
Union Slide Gate Replacement	M	350,000	-	-	-	-	-	350,000	-	-	-	-	-
Unidentified Projects	A, D	5,700,000	-	-	500,000	250,000	200,000	750,000	1,000,000	1,000,000	1,000,000	1,000,000	-
Total O&M Funding Requirements		\$ 10,620,000	\$ 440,000	\$ 1,075,000	\$ 1,020,000	\$ 1,185,000	\$ 1,025,000	\$ 1,350,000	\$ 1,250,000	\$ 1,000,000	\$ 1,000,000	\$ 1,275,000	\$ -

Project	Notes	Total	Current FY 2021	Proposed 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	Forecast FY 2031
General & Plant													
Vehicle Replacement	D	\$ 530,000	\$ 65,000	\$ 65,000	\$ 85,000	\$ 65,000	\$ 80,000	\$ 85,000	\$ 85,000	\$ -	\$ -	\$ -	-
Microwave Radio Replacement	D	650,000	-	-	300,000	350,000	-	-	-	-	-	-	-
Chipper	D	65,000	-	-	65,000	-	-	-	-	-	-	-	-
Snow Cat	D	150,000	-	-	-	150,000	-	-	-	-	-	-	-
Spicer Snow Cat Building	D	200,000	-	-	-	-	200,000	-	-	-	-	-	-
Unidentified Projects	A, D	4,550,000	-	-	200,000	100,000	500,000	750,000	750,000	750,000	750,000	750,000	-
Total General & Plant Funding Requirements		\$ 6,145,000	\$ 65,000	\$ 65,000	\$ 650,000	\$ 665,000	\$ 780,000	\$ 835,000	\$ 835,000	\$ 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 2021	Proposed 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	Forecast FY 2031
RESERVE FUNDING REQUIREMENTS													
McKay's Reservoir & Dam Betterment (Clean Out)	M, CR	\$ 42,350,000	\$ 4,250,000	\$ 2,200,000	\$ 6,600,000	\$ 6,600,000	\$ 22,700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Generator Rewind	M, CR	-	-	-	-	-	-	-	-	-	-	-	-
FERC Relicensing	M, CR	-	-	-	-	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		43,725,000	4,375,000	2,325,000	6,725,000	6,725,000	22,825,000	125,000	125,000	125,000	125,000	125,000	125,000
Funding From Settlements (non-GES, see SR: 239:18)**		1,052,176											
RESERVE DISBURSEMENTS													
McKay's Reservoir & Dam Betterment (Clean Out)		(60,650,000)	(350,000)	(300,000)	-	(32,500,000)	(27,500,000)	-	-	-	-	-	-
Wildfire Mitigation Project		(3,250,000)	(3,250,000)	-	-	-	-	-	-	-	-	-	-
Beaver Creek Dredging		(1,319,715)	-	-	-	(550,000)	-	-	-	-	-	-	(769,715)
Total Reserve Disbursements		(65,219,715)	(3,600,000)	(300,000)	-	(33,050,000)	(27,500,000)	-	-	-	-	-	(769,715)
Estimated Capital Development Reserve Net Ending Balance			\$ 22,317,539	\$ 24,342,539	\$ 31,067,539	\$ 4,742,539	\$ 67,539	\$ 192,539	\$ 317,539	\$ 442,539	\$ 567,539	\$ 692,539	\$ 47,824
Total Reserve Balance at 6/30/20		\$ 21,542,539											

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 2008-2020**

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Total
RESERVE FUNDING														
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	3,000,000	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	1,330,000	5,077,609
Beaver Creak Dredging	-	-	-	324,597	-	-	-	300,000	125,000	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	482,088	450,922	1,990,610
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	2,709,264	4,905,922	24,931,219
RESERVE DISBURSEMENTS														
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)	(2,561,890)	(4,422,984)
Total Disbursements	(507,848)	(190,019)	(477,152)	(34,798)	(99,910)	-	-	-	-	-	-	(4,422,984)	(2,561,890)	(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	(1,713,720)	2,344,032	19,198,508
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	19,198,508	21,542,540	19,198,508

* 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 2022**

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											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Authorized Contingency Balance	<u>\$250,000</u>											
Reserve Activity												
Contingent maint.	250,000											
Annual Funding Req. *		-	-	-	-	-	-	-	-	-	-	-
Balance	\$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 2022

	Allocated by	Total	Alameda	Healdsburg	Lodi	Lompoc	Palo Alto	Plumas-Sierra	Roseville	SVP	Ukiah
ALLOCATION PERCENTAGES:											
Generation Entitlement Share ¹	GES	100.0000%	10.0000%	1.6600%	10.3700%	2.3000%	22.9200%	1.6900%	12.0000%	37.0200%	2.0400%
PROJECTED MWH		477,404	47,740	7,925	49,507	10,980	109,421	8,068	57,288	176,735	9,739
PROJECT COSTS:											
Routine O&M:											
Variable Costs											
CAISO Charges	Note A	\$ 263,616	\$ 26,362	\$ 4,376	\$ 27,337	\$ 6,063	\$ 60,421	\$ 4,455	\$ 31,634	\$ 97,591	\$ 5,378
CAISO Energy Purchaes	Note A	2,371,322	237,132	39,364	245,906	54,540	543,507	40,075	284,559	877,863	48,375
Fixed Costs	GES	1,581,100	158,110	26,246	163,960	36,365	362,388	26,721	189,732	585,323	32,254
Cloud Seeding	GES	424,000	42,400	7,038	43,969	9,752	97,181	7,166	50,880	156,965	8,650
Administration	GES	145,721	14,572	2,419	15,111	3,352	33,399	2,463	17,487	53,946	2,973
Mandatory Costs	GES	1,745,500	174,550	28,975	181,008	40,147	400,069	29,499	209,460	646,184	35,608
Transmission O&M	GES	378,500	37,850	6,283	39,250	8,706	86,752	6,397	45,420	140,121	7,721
Labor	GES	5,607,479	560,748	93,084	581,496	128,972	1,285,234	94,766	672,897	2,075,889	114,393
Other Costs:											
Water for Power	GES	225,000	22,500	3,735	23,333	5,175	51,570	3,803	27,000	83,295	4,590
Debt Service	Note B	33,421,637	3,476,543	413,805	3,605,175	799,605	7,968,237	587,536	2,991,360	12,870,162	709,215
Insurance	GES	2,033,164	203,316	33,751	210,839	46,763	466,001	34,360	243,980	752,677	41,477
Other Costs	GES	90,277	9,028	1,499	9,362	2,076	20,691	1,526	10,833	33,421	1,842
Generation Services Shared	GES	330,942	33,094	5,494	34,319	7,612	75,852	5,593	39,713	122,515	6,751
Administrative & General	GES	1,997,915	199,792	33,165	207,184	45,952	457,922	33,765	239,750	739,628	40,757
Projects:											
O&M	GES	1,075,000	107,500	17,845	111,478	24,725	246,390	18,168	129,000	397,965	21,930
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	2,325,000	232,500	38,595	241,103	53,475	532,890	39,293	279,000	860,715	47,430
Total Project Costs	GES	54,081,173	5,542,497	756,753	5,747,569	1,274,774	12,703,402	936,682	5,470,504	20,518,322	1,130,669
Project Revenues											
ISO Energy Sales		22,047,340	2,204,734	365,986	2,286,309	507,089	5,053,251	372,600	2,645,681	8,161,925	449,766
Ancillary Services Sales	Note C	2,241,230	224,123	37,204	232,416	51,548	513,690	37,877	268,947	829,704	45,721
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		24,958,558	2,495,856	414,312	2,588,202	574,047	5,720,503	421,799	2,995,027	9,239,659	509,154
Annual Project Costs, net		\$ 29,122,615	\$ 3,046,641	\$ 342,441	\$ 3,159,367	\$ 700,728	\$ 6,982,900	\$ 514,883	\$ 2,475,477	\$ 11,278,663	\$ 621,515
Estimated price per Mwh		\$ 61.00	\$ 63.82	\$ 43.21	\$ 63.82	\$ 63.82	\$ 63.82	\$ 63.82	\$ 43.21	\$ 63.82	\$ 63.82
FY 2021 Net Annual Project Costs											
		\$ 29,166,844	\$ 3,051,313	\$ 342,914	\$ 3,164,211	\$ 701,802	\$ 6,993,609	\$ 515,672	\$ 2,478,895	\$ 11,295,960	\$ 622,469
Net Project Cost Decrease											
		\$ (44,229)	\$ (4,672)	\$ (473)	\$ (4,844)	\$ (1,074)	\$ (10,709)	\$ (789)	\$ (3,418)	\$ (17,296)	\$ (954)
		-0.15%	-0.15%	-0.14%	-0.15%	-0.15%	-0.15%	-0.15%	-0.14%	-0.15%	-0.15%
Summary of Variable and Fixed Project Costs:											
Variable Costs		\$ 2,634,938	\$ 263,494	\$ 43,740	\$ 273,243	\$ 60,604	\$ 603,928	\$ 44,530	\$ 316,193	\$ 975,454	\$ 53,753
Fixed Costs		51,446,235	5,279,003	713,013	5,474,326	1,214,171	12,099,475	892,151	5,154,311	19,542,868	1,076,917
		\$ 54,081,173	\$ 5,542,497	\$ 756,753	\$ 5,747,569	\$ 1,274,774	\$ 12,703,402	\$ 936,682	\$ 5,470,504	\$ 20,518,322	\$ 1,130,669

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

² CAISO, A&G allocation, Power Management allocation, other non-O&M costs and Third Party Revenue Budgets are not available at this time.

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 2022
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 54.7 MWG beginning in FY 2022, based on current steamfield conditions. Reservoir decline of 2% is expected during the year, which will lower output by 0.8 MW by the end of the 2021 fiscal year.

Geothermal Plant No. Two is projected to operate at an initial capacity of 40.1 MWG beginning in FY 2022, with average generation declining about 0.8 MW during the fiscal year. Unit #4 is scheduled for an overhaul and expected to be down for six weeks toward the end of FY 2022.

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)	54.7 MWG	40.1 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 – 1008 hours,
Total Net Generation Forecasted (takes into account 8.3 MW house load)	404,541 MWhr net	281,891 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 1.6 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 11.25% 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 2022 O&M and Capital Projects totaling \$2,275,000 include:

<u>Project</u>	<u>Amount</u>
Plant, Yard, & Road Repairs (O&M)	\$300,000
Steam Field Pipe Supports (O&M)	\$100,000
Bear Canyon #2 VFD (O&M)	\$75,000
Plant #2 EHC (O&M)	\$100,000
Plant #2 Seal Oil Skid (O&M)	\$100,000
SEGEF Surge Tank Replacements (O&M)	\$100,000
Plant #1 13.8 kV / 2.4 kV / 480 V Bus Restoration (O&M)	\$125,000
Plant #1 Intertie Switch (O&M)	\$100,000
Plant #1 New Cooling Towers (O&M)	\$100,000
Total O&M	\$1,100,000
Geo Admin and Maintenance Facility Upgrade (Capital)	\$75,000
Plant #2 Diesel Tank (Capital)	\$450,000
Vehicle Replacements (Capital)	\$250,000
Enterprise Monitor Systems Upgrade (Capital)	\$400,000
Total Capital	\$1,175,000
Total O&M and Capital	\$2,275,000

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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Variable Costs						
Variable O&M	\$910,000	\$1,020,401	\$840,000	\$422,917	\$900,000	\$60,000
CA ISO Charges (variable)	624,704	922,433	534,230	800,958	503,562	(30,668)
Steam Royalties (variable)	1,431,000	1,246,575	1,432,387	744,866	1,300,000	(132,387)
Total Variable	2,965,704	3,189,409	2,806,617	1,968,741	2,703,562	(103,055)
Routine O&M Costs w/o Labor						
Fixed O&M	4,515,000	6,940,162	4,979,125	2,619,079	5,133,615	154,490
Administration	468,000	507,611	452,500	191,605	503,100	50,600
Mandatory Costs	327,000	400,183	342,000	327,387	360,000	18,000
Transmission O & M	85,000	23,791	85,000	33,344	75,000	(10,000)
Total Routine O&M Costs without Labor	5,395,000	7,871,747	5,858,625	3,171,415	6,071,715	213,090
Labor	10,719,924	10,431,142	11,121,191	5,174,966	11,731,723	610,532
Total Routine O&M Costs	16,114,924	18,302,889	16,979,816	8,346,381	17,803,438	823,622
Other Costs						
Debt Service	4,945,723	1,375,606	4,950,461	2,475,231	4,953,453	2,992
Insurance	667,778	755,635	824,965	368,156	1,412,779	587,814
Decommissioning Costs	1,721,128	1,721,128	1,684,404	842,202	1,647,648	(36,756)
Other Costs	1,293,704	1,409,886	1,272,621	629,712	1,278,382	5,761
Generation Services Shared	637,707	677,716	680,871	318,757	719,698	38,827
Administrative & General	3,319,343	3,410,573	3,776,637	1,531,788	3,938,412	161,775
Total Other Plant Costs	12,585,383	9,350,544	13,189,959	6,165,846	13,950,372	760,413
Total O&M Costs	31,666,011	30,842,842	32,976,392	16,480,968	34,457,372	1,480,980
Projects						
Operations & Maintenance	200,000	267,405	0	30,532	1,100,000	1,100,000
Fire Related Costs	0	532,347	0	0	0	0
Capital	815,000	1,300,268	585,000	219,503	1,175,000	590,000
Maintenance Reserve	2,630,000	2,630,000	2,000,000	1,000,000	3,930,000	1,930,000
Total Projects Costs	3,645,000	4,730,020	2,585,000	1,250,035	6,205,000	3,620,000
Annual Budget Cost	35,311,011	35,572,862	35,561,392	17,731,003	40,662,372	5,100,980
Less: Third Party Revenues						
ISO Energy Sales	29,480,578	20,152,145	25,810,526	16,279,171	27,577,856	1,767,330
Interest Income	382,165	233,173	382,165	76,394	382,165	0
Transmission Sales	110,376	110,376	110,376	55,188	110,376	0
Effluent Revenue	750,000	1,754,545	750,000	648,275	750,000	0
Other Income	2,500	(22,045)	2,500	1,379	2,500	0
	30,725,619	22,228,194	27,055,567	17,060,407	28,822,897	1,767,330
Net Annual Budget Cost to Participants	\$4,585,392	\$13,344,668	\$8,505,825	\$670,596	\$11,839,475	\$3,333,650
Total Plant Budget Cost	\$35,218,533	\$35,542,962	\$35,467,725	\$17,694,700	\$40,580,519	\$5,112,794
Total Transmission Budget Cost	92,478	29,900	93,667	36,303	81,853	(11,814)
	\$35,311,011	\$35,572,862	\$35,561,392	\$17,731,003	\$40,662,372	\$5,100,980
Total Variable Costs	\$2,965,704	\$3,189,409	\$2,806,617	\$1,968,741	\$2,703,562	(\$103,055)
Total Fixed Costs	32,345,307	32,383,453	32,754,775	15,762,262	37,958,810	5,204,035
	\$35,311,011	\$35,572,862	\$35,561,392	\$17,731,003	\$40,662,372	\$5,100,980
Net Annual Generation (MWh)	776,885	655,836	738,552	387,209	686,432	(52,120)
Net Annual Budget Costs per MWh	\$6	\$20	\$12	\$2	\$17	\$6
Variable Costs per MWh	\$4	\$5	\$4	\$5	\$4	\$0
Fixed Costs per KW Month	\$28	\$28	\$28	\$14	\$33	\$5

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

Project	Notes	Total	FY 2021 Budget	Proposed FY 2022 Budget	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030	Forecast FY 2031
Operations & Maintenance (O&M)													
Plant, Yard & Road Repairs	D	\$ 3,439,164	\$ -	\$ 300,000	\$ 309,000	\$ 318,270	\$ 327,818	\$ 337,653	\$ 347,782	\$ 358,216	\$ 368,962	\$ 380,031	\$ 391,432
Steam Field Pipe Supports	M	225,000	-	100,000	125,000	-	-	-	-	-	-	-	-
Bear Canyon #2 VFD	D	75,000	-	75,000	-	-	-	-	-	-	-	-	-
Plant #2 EHC Engineering	D	300,000	-	100,000	200,000	-	-	-	-	-	-	-	-
Plant #2 Seal Oil Skid - Scoping & Engineering	D	350,000	-	100,000	250,000	-	-	-	-	-	-	-	-
SEGEP Surge Tank Replacements - Assessment & Engineering	D	565,000	-	100,000	150,000	155,000	160,000	-	-	-	-	-	-
Plant #1 13.8 kV / 2.4 kV / 480 V Bus - Assessment	D	625,000	-	125,000	500,000	-	-	-	-	-	-	-	-
Plant #1 Intertie Switch - Engineering & Permitting	D	300,000	-	100,000	200,000	-	-	-	-	-	-	-	-
Plant #1 New Cooling Towers - Engineering	D	2,600,000	-	100,000	2,500,000	-	-	-	-	-	-	-	-
Total O&M Projects Funding Requirement		\$ 8,479,164	\$ -	\$ 1,100,000	\$ 4,234,000	\$ 473,270	\$ 487,818	\$ 337,653	\$ 347,782	\$ 358,216	\$ 368,962	\$ 380,031	\$ 391,432

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 2021 Budget	Proposed FY 2022 Budget	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030	Forecast FY 2031
Capital													
Plant #1 Fire System Modernization	M	\$ 800,000	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plant #1 MCC Breakers	D	100,000	100,000	-	-	-	-	-	-	-	-	-	-
Plant #1 & #2 Door Replacements	D	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	2,990,970	125,000	250,000	257,500	265,225	273,182	281,377	289,819	298,513	307,468	316,693	326,193
Enterprise Monitor Systems Upgrade (Field & Effluent)	D	600,000	100,000	400,000	100,000	-	-	-	-	-	-	-	-
Total Capital Projects Funding Requirement		\$ 5,525,970	\$ 1,485,000	\$ 1,175,000	\$ 507,500	\$ 265,225	\$ 273,182	\$ 281,377	\$ 289,819	\$ 298,513	\$ 307,468	\$ 316,693	\$ 326,193

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	\$ (900,000)	\$ (900,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Total Capital Projects Funding Requirement (Net)	\$ 4,625,970	\$ 585,000	\$ 1,175,000	\$ 507,500	\$ 265,225	\$ 273,182	\$ 281,377	\$ 289,819	\$ 298,513	\$ 307,468	\$ 316,693	\$ 326,193
--------------------------------------------------	--------------	------------	--------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

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 2022**

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											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Reserve Activity												
Unit One Overhaul						(1,500,000)						(2,500,000)
Unit Two Overhaul						(2,000,000)						(1,750,000)
Unit Four Overhaul			(3,500,000)						(4,250,000)			
Well Replacement /Workover	(7,387,639)				(3,400,000)			(4,000,000)				
Plant #1 HVAC		(606,183)										
Plant #1 Fire Protection		(1,000,000)										
Contingent maintenance	2,630,000											
Projected Requirements		(1,606,183)	(3,500,000)	-	(3,400,000)	(3,500,000)	-	(4,000,000)	(4,250,000)	-	-	(4,250,000)
Annual Funding Req*		2,000,000	3,930,000	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	428,555	822,372	1,252,372	3,882,372	3,112,372	2,242,372	4,872,372	3,502,372	1,882,372	4,512,372	7,142,372	5,522,372
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
*Estimated												

Northern California Power Agency
Geothermal Project Allocation of Project Budget
FY 2022

	Allocated by	Total	Alameda	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Plumas-Sierra	Roseville	SVP	TID	Ukiah
ALLOCATION PERCENTAGES:													
Generation Entitlement Share ¹	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 ²	Trans	100.0000%	30.3590%	0.4082%	0.6042%	6.6068%	18.4861%	6.6194%	1.2606%	14.1756%		11.3838%	10.0963%
PROJECTED MWH		686,432	115,887	1,558	2,306	25,220	70,565	25,268	4,812	54,111	304,711	43,455	38,540
PROJECT COSTS:													
Routine O&M:													
Variable O&M costs	GES	\$ 900,000	\$ 151,943	\$ 2,043	\$ 3,024	\$ 33,066	\$ 92,520	\$ 33,129	\$ 6,309	\$ 70,947	\$ 399,515	\$ 56,975	\$ 50,531
Steam royalties	GES	1,300,000	219,473	2,951	4,368	47,762	133,640	47,853	9,113	102,479	577,077	82,297	72,989
CAISO charges	GES	503,562	85,014	1,143	1,691	18,501	51,766	18,535	3,530	39,697	223,533	31,879	28,273
Fixed costs	GES	5,133,615	866,683	11,653	17,249	188,609	527,736	188,968	35,987	404,683	2,278,837	324,983	288,227
Administration	GES	503,100	84,936	1,142	1,690	18,484	51,719	18,519	3,527	39,659	223,329	31,849	28,247
Mandatory costs	GES	360,000	60,777	817	1,210	13,226	37,008	13,252	2,524	28,379	159,806	22,790	20,212
Inventory	GES	-	-	-	-	-	-	-	-	-	-	-	-
Transmission O&M ²	Trans	75,000	22,769	306	453	4,955	13,865	4,965	945	10,632	-	8,538	7,572
Labor	GES	11,731,723	1,980,608	26,631	39,419	431,024	1,206,021	431,845	82,239	924,812	5,207,770	742,677	658,678
Other Costs:													
Debt service	GES	4,953,453	836,267	11,244	16,644	181,990	509,215	182,337	34,724	390,481	2,198,863	313,578	278,112
Insurance	GES	1,412,779	238,512	3,207	4,747	51,906	145,234	52,004	9,904	111,369	627,140	89,436	79,320
Decommissioning Costs	GES	1,647,648	278,164	3,740	5,536	60,535	169,378	60,650	11,550	129,884	731,399	104,304	92,507
Other costs	GES	1,278,382	215,823	2,902	4,295	46,968	131,418	47,057	8,961	100,775	567,480	80,928	71,775
Generation Services Shared	GES	719,698	121,503	1,634	2,418	26,442	73,985	26,492	5,045	56,734	319,478	45,560	40,407
Administrative & General	GES	3,931,559	663,745	8,925	13,210	144,445	404,164	144,721	27,560	309,925	1,745,239	248,887	220,737
Transmission A&G ²	Trans	6,853	2,081	28	41	453	1,267	454	86	971	-	780	692
Projects:													
O&M	GES	1,100,000	185,708	2,497	3,696	40,414	113,080	40,491	7,711	86,713	488,296	69,636	61,760
Capital	GES	1,175,000	198,369	2,667	3,948	43,170	120,790	43,252	8,237	92,625	521,588	74,383	65,970
Maintenance Reserve	GES	3,930,000	663,482	8,921	13,205	144,388	404,004	144,663	27,549	309,802	1,744,547	248,789	220,650
Total Project Costs	GES	40,662,372	6,875,856	92,452	136,845	1,496,336	4,186,808	1,499,186	285,501	3,210,566	18,013,895	2,578,269	2,286,658
Project Revenues													
ISO Energy sales	GES	27,577,856	4,655,832	62,602	92,662	1,013,210	2,835,004	1,015,141	193,321	2,173,962	12,241,948	1,745,816	1,548,359
Transmission sales ³	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		28,822,897	4,866,026	65,428	96,845	1,058,953	2,962,994	1,060,971	202,049	2,272,109	12,794,628	1,824,633	1,618,262
Annual Project Expense, net		#####	\$ 2,009,830	\$ 27,024	\$ 40,000	\$ 437,383	\$ 1,223,815	\$ 438,215	\$ 83,452	\$ 938,458	\$ 5,219,267	\$ 753,635	\$ 668,397
Estimated price per Mwh		\$ 17.25	\$ 17.34	\$ 17.34	\$ 17.34	\$ 17.34	\$ 17.34	\$ 17.34	\$ 17.34	\$ 17.34	\$ 17.13	\$ 17.34	\$ 17.34
FY 2021 Net Annual Project Costs													
		\$ 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
Net Project Revenue Decrease													
		\$ 3,333,650	\$ 560,439	\$ 7,663	\$ 11,132	\$ 121,971	\$ 337,842	\$ 122,198	\$ 23,210	\$ 264,048	\$ 1,485,068	\$ 213,689	\$ 186,391
		39.19%	38.67%	39.58%	38.56%	38.67%	38.13%	38.67%	38.53%	39.15%	39.77%	39.58%	38.67%
Summary of Variable and Fixed Project Costs:													
Variable Costs		\$ 2,703,562	\$ 456,429	\$ 6,137	\$ 9,084	\$ 99,329	\$ 277,926	\$ 99,518	\$ 18,952	\$ 213,122	\$ 1,200,125	\$ 171,149	\$ 151,791
Fixed Costs		37,958,810	6,419,427	86,315	127,761	1,397,007	3,908,882	1,399,668	266,549	2,997,445	16,813,770	2,407,120	2,134,867
		#####	\$ 6,875,856	\$ 92,452	\$ 136,845	\$ 1,496,336	\$ 4,186,808	\$ 1,499,186	\$ 285,501	\$ 3,210,566	#####	\$ 2,578,269	\$ 2,286,658

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

² PG&E invoices NCPA for annual operations and maintenances costs (O&M Costs) associated with NCPA's entitlement share of the 230 kV Cotenancy Transmission facilities. Invoices received by NCPA do not include O&M Costs associated with SVP's entitlement share of the 230 kV Cotenancy Transmission facilities; rather, SVP is billed directly by PG&E. As such, O&M costs associated with the Cotenancy Transmission facilities invoiced to NCPA are allocated to project participants using normalized project entitlement percentages excluding SVP.

³ Transmission sales represent Calpine's usage of the NCPA interconnection facilities (commonly referred to as the "Geothermal Tap Lines") to delivery power to the CAISO Grid. Operations and maintenance costs of these taplines are done by NCPA and are included as general plant costs. Therefore, transmission sales revenues collected from Calpine are allocated based on project entitlement percentages.

Combustion Turbine No. One

FY 2022

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. The budget is also based on implementation of a maintenance agreement for turbine maintenance. 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:

- A portion of the deductible of an insured loss may be absorbed for the fiscal year (currently \$978,000 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 \$1,000,000 for FY 2022.

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Variable Costs						
Variable O&M	\$24,275	\$49,408	\$29,498	\$10,177	\$21,500	(\$7,998)
Fuel & LDC Costs	947,997	409,015	936,873	535,863	791,613	(145,260)
CA ISO Charges	69,300	227,546	93,992	365,593	89,703	(4,289)
Total Variable Costs	1,041,572	685,969	1,060,363	911,633	902,816	(157,547)
Routine O & M Costs						
Fixed O&M	814,624	785,326	817,954	444,224	952,017	134,063
Administration	44,064	65,562	44,232	14,179	45,072	840
Mandatory Costs	190,157	255,119	190,157	107,243	198,977	8,820
Inventory Stock	45,000	0	45,000	5,367	45,000	0
Routine O & M Costs without Labor	1,093,845	1,106,007	1,097,343	571,013	1,241,066	143,723
Labor	1,149,968	1,231,809	1,193,226	641,496	1,255,597	62,371
Total Routine O & M Costs	2,243,813	2,337,816	2,290,569	1,212,509	2,496,663	206,094
Other Plant Costs						
Fuel Administrative Costs	27,302	34,938	31,773	7,282	25,614	(6,159)
Insurance	110,905	125,745	137,229	61,628	247,528	110,299
Other Costs	20,400	10,043	20,400	780	5,400	(15,000)
Generation Services Shared	72,600	65,834	75,579	35,371	77,087	1,508
Administrative & General	542,938	494,802	600,664	239,773	726,376	125,712
Total Other Plant Costs	774,145	731,362	865,645	344,834	1,082,005	216,360
Total O & M Costs	4,059,530	3,755,147	4,216,577	2,468,976	4,481,484	264,907
Projects						
Operations & Maintenance	750,000	606,449	2,250,000	70,219	1,513,200	(736,800)
Capital	60,000	162,431	117,000	0	60,000	(57,000)
Maintenance Reserve	1,300,000	1,300,000	1,300,000	650,000	1,000,000	(300,000)
Total Projects	2,110,000	2,068,880	3,667,000	720,219	2,573,200	(1,093,800)
Annual Budget Cost	6,169,530	5,824,027	7,883,577	3,189,195	7,054,684	(828,893)
Less: Third Party Revenue						
ISO Energy Sales	1,266,004	1,018,250	1,311,400	2,609,069	1,299,571	(11,829)
Ancillary Services Sales	0	0	0	0	0	0
Interest Income	0	31,500	0	22,753	0	0
Other Income	0	15,644	0	15,644	0	0
	1,266,004	1,065,394	1,311,400	2,647,466	1,299,571	(11,829)
Net Annual Costs To Participants	\$4,903,526	\$4,758,633	\$6,572,177	\$541,729	\$5,755,113	(\$817,064)
Total Variable Costs	\$1,041,572	\$685,969	\$1,060,363	\$911,633	\$902,816	(\$157,547)
Total Fixed Costs	5,127,958	5,138,058	6,823,214	2,277,562	6,151,868	(671,346)
	\$6,169,530	\$5,824,027	\$7,883,577	\$3,189,195	\$7,054,684	(\$828,893)
Net Annual Generation (MWh)	13,042	5,774	15,641	8,232	10,438	(5,203)
Net Annual Budget Cost per MWh	\$376	\$824	\$420	\$66	\$551	\$131
Variable Costs per MWh	\$80	\$119	\$68	\$111	\$86	\$19
Fixed Costs per KW Month	\$6	\$6	\$8	\$5	\$7	(\$1)

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

			FY 2021	Proposed	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
			Budget	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Projects	Notes	Total											
Operations & Maintenance (O&M)													
Generator Circuit Breaker Upgrade	D	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Switchyard Relay Upgrades	D	275,000	-	-	-	275,000	-	-	-	-	-	-	-
Pig Launching Station	D	-	-	-	-	-	-	-	-	-	-	-	-
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	4,250,000	2,250,000	-	-	-	2,000,000	-	-	-	-	-	-
Control System	D	1,500,000	-	1,500,000	-	-	-	-	-	-	-	-	-
Gas Plants Shared Projects	D	1,363,200	-	13,200	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Total O&M Projects Funding Requirement		\$ 9,688,200	\$ 2,250,000	\$ 1,513,200	\$ 1,350,000	\$ 1,525,000	\$ 2,150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Capital													
Vehicles	D	\$ 357,000	\$ 117,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capital Projects Funding Requirement		\$ 357,000	\$ 117,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Notes:
D Discretionary
M Mandatory

**Northern California Power Agency
Maintenance Reserves - Combustion Turbine No. One
Budget FY 2022**

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)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Beginning Reserve Balance	2,909,894	-	-	-	-	-	-	-	-	-	-
Combustion Turbine Lodi	-	(85,000)	-	-	(167,990)	-	(52,167)	(40,000)	-	(30,910)	0
Combustion Turbine ALA1	-	(725,000)	-	(163,097)	-	-	-	-	(1,236,925)	(\$80,910)	0
Combustion Turbine ALA2	-	(2,233,600)	-	-	-	-	(178,220)	-	-	(80,910)	-
Generators	(200,000)	-	-	-	-	-	(122,987)	(1,013,416)	-	-	-
Balance of Plant	(163,000)	(340,000)	(110,000)	(99,173)	(32,782)	(20,867)	(406,605)	(92,097)	(171,663)	(58,715)	(63,334)
Projected Requirements	(363,000)	(3,383,600)	(110,000)	(262,269)	(200,771)	(20,867)	(759,980)	(1,145,513)	(1,408,588)	(251,445)	(63,334)
Funding Requirement	1,300,000	1,000,000	625,000	637,500	650,250	663,255	676,520	690,051	703,852	717,929	732,287
Cumulative Balance	\$ 3,846,894	\$ 1,463,294	\$ 1,978,294	\$ 2,353,525	\$ 2,803,003	\$ 3,445,391	\$ 3,361,931	\$ 2,906,469	\$ 2,201,732	\$ 2,668,215	\$ 3,337,169

Northern California Power Agency
Combustion Turbine No.1 Allocation of Project Budget
FY 2022

	Allocated by	Total	Alameda	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Plumas-Sierra	SVP	Ukiah
ALLOCATION PERCENTAGES:											
Generation Entitlement Share ¹	GES	100.0000%	21.8200%	0.1967%	0.3500%	5.8333%	13.3933%	5.8333%	1.8167%	41.6667%	9.0900%
PROJECTED MWH		10,438	2,278	21	37	609	1,398	609	190	4,349	949
PROJECT COSTS:											
Routine O&M:											
Variable costs	GES	\$ 21,500	\$ 4,691	\$ 42	\$ 75	\$ 1,254	\$ 2,880	\$ 1,254	\$ 391	\$ 8,958	\$ 1,954
Fixed costs	GES	952,017	207,730	1,873	3,332	55,534	127,506	55,534	17,295	396,674	86,538
Administration	GES	45,072	9,835	89	158	2,629	6,037	2,629	819	18,780	4,097
Mandatory costs	GES	198,977	43,417	391	696	11,607	26,650	11,607	3,615	82,907	18,087
Inventory	GES	45,000	9,819	89	158	2,625	6,027	2,625	818	18,750	4,091
Labor	GES	1,255,597	273,971	2,470	4,395	73,243	168,166	73,243	22,810	523,166	114,134
Other Costs:											
Fuel and LDC costs	GES	791,613	172,730	1,560	2,771	46,174	106,020	46,174	14,384	329,842	71,958
Fuel administration costs	GES	25,614	5,589	50	90	1,494	3,431	1,494	465	10,673	2,328
CAISO charges	GES	89,703	19,573	176	314	5,233	12,013	5,233	1,630	37,377	8,154
Insurance	GES	247,528	54,011	487	866	14,439	33,152	14,439	4,497	103,137	22,500
Other costs	GES	5,400	1,178	11	19	315	723	315	98	2,250	491
Generation Services Shared	GES	77,087	16,820	152	270	4,497	10,324	4,497	1,400	32,120	7,007
Administrative & General	GES	726,376	158,495	1,429	2,542	42,372	97,286	42,372	13,196	302,657	66,028
Projects:	GES										
O&M Projects & Maintenance Reserve	GES	2,573,200	561,472	5,061	9,006	150,102	344,636	150,102	46,747	1,072,168	233,904
Total Project Costs	GES	7,054,684	1,539,332	13,880	24,691	411,518	944,851	411,518	128,165	2,939,458	641,271
Project Revenues											
CAISO Energy Sales	GES	1,299,571	283,566	2,559	4,548	75,804	174,051	75,804	23,613	541,493	118,131
Total Project Revenues		1,299,571	283,566	2,559	4,548	75,804	174,051	75,804	23,613	541,493	118,131
Annual Project Revenue, net		\$ 5,755,113	\$ 1,255,766	\$ 11,320	\$ 20,143	\$ 335,714	\$ 770,800	\$ 335,714	\$ 104,552	\$ 2,397,965	\$ 523,140
Estimated price per Mwh		\$ 551.36	\$ 551.36	\$ 551.36	\$ 551.36	\$ 551.36	\$ 551.36	\$ 551.36	\$ 551.36	\$ 551.36	\$ 551.36
FY 2021 Net Annual Project Costs		\$ 6,572,178	1,434,049	12,927	23,003	383,376	880,232	383,376	119,396	2,738,409	597,411
Net Project Cost Increase		\$ (817,065)	(178,284)	(1,607)	(2,860)	(47,662)	(109,432)	(47,662)	(14,844)	(340,444)	(74,271)
		-12.43%	-12.43%	-12.43%	-12.43%	-12.43%	-12.43%	-12.43%	-12.43%	-12.43%	-12.43%
Summary of Variable and Fixed Project Costs:											
Variable Costs.		902,816	196,994	1,776	3,160	52,664	120,917	52,664	16,401	376,174	82,066
Fixed Costs		6,151,868	1,342,338	12,101	21,532	358,857	823,938	358,857	111,761	2,563,280	559,205
		\$ 7,054,684	\$ 1,539,332	\$ 13,877	\$ 24,691	\$ 411,521	\$ 944,855	\$ 411,521	\$ 128,162	\$ 2,939,454	\$ 641,271

¹ 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 2022

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;
- A portion of the deductible of an insured loss may be absorbed for the fiscal year (currently \$978,000 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 is not required.

Operations & Maintenance Project Costs

We are anticipating O&M projects totaling \$39,800 for FY 2022.

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Variable Costs						
Variable O&M	\$130,426	\$36,105	\$72,552	\$76,509	\$158,633	\$86,081
Fuel & LDC Costs	365,539	384,541	197,039	1,020,932	582,164	385,125
Pipeline Transport Costs	713,772	651,716	706,558	311,384	683,206	(23,352)
GHG Allowance Costs	0	0	43,229	0	104,146	60,917
CA ISO Charges	53,138	76,460	40,380	311,525	135,930	95,550
Total Variable Costs	1,262,875	1,148,822	1,059,758	1,720,350	1,664,079	604,321
Routine O & M Costs						
Fixed O&M	477,166	634,009	487,319	307,804	510,014	22,695
Administration	49,453	30,011	49,705	14,802	50,965	1,260
Mandatory Costs	77,550	93,834	78,423	30,388	78,423	0
Inventory Stock	15,000	0	15,000	61,370	15,000	0
Routine O & M Costs without Labor	619,169	757,854	630,447	414,364	654,402	23,955
Labor	845,892	773,230	880,502	401,830	972,867	92,365
Total Routine O & M Costs	1,465,061	1,531,084	1,510,949	816,194	1,627,269	116,320
Other Plant Costs						
Fuel Administrative Costs	9,807	31,072	6,409	17,145	19,381	12,972
Debt Service	5,796,421	5,791,612	4,826,162	2,413,081	5,048,000	221,838
Insurance	77,386	87,609	95,539	42,546	171,655	76,116
Other Costs	13,251	9,408	12,699	3,943	12,520	(179)
Generation Services Shared	53,469	48,972	55,661	26,055	56,320	659
Administrative & General	341,953	268,657	385,403	154,727	316,855	(68,548)
Total Other Plant Costs	6,292,287	6,237,330	5,381,873	2,657,497	5,624,731	242,858
Total O & M Costs	9,020,223	8,917,236	7,952,580	5,194,041	8,916,079	963,499
Projects						
Operations & Maintenance	65,000	36,765	30,000	0	39,800	9,800
Capital	3,250	9,024	6,500	3,682	6,500	0
Maintenance Reserve	349,936	349,936	0	0	0	0
Total Projects Costs	418,186	395,725	36,500	3,682	46,300	9,800
Annual Budget Cost	9,438,409	9,312,961	7,989,080	5,197,723	8,962,379	973,299
Less: Third Party Revenue						
ISO Energy Sales	819,302	772,031	398,662	2,674,941	1,320,850	922,188
ISO A/S Revenue	0	0	0	0	0	0
Fuel and Pipeline Transport Credits	1,687,279	1,398,694	1,820,720	638,529	1,788,156	(32,565)
GHG Allowance Credits	0	0	43,229	0	104,146	60,917
Interest Income	108,662	98,119	108,662	22,507	108,662	0
Other Income	0	0	0	0	0	0
	2,615,243	2,268,844	2,371,273	3,335,977	3,321,814	950,540
Net Annual Costs To Participants	\$6,823,166	\$7,044,117	\$5,617,807	\$1,861,746	\$5,640,565	\$22,759
Total Variable Costs	\$1,262,875	\$1,148,822	\$1,059,758	\$1,720,350	\$1,664,079	\$604,321
Total Fixed Costs	8,175,534	8,164,139	6,929,322	3,477,373	7,298,300	368,978
	\$9,438,409	\$9,312,961	\$7,989,080	\$5,197,723	\$8,962,379	\$973,299
Net Annual Generation (MWh)	9,206	10,855	4,987	30,692	12,003	7,016
Net Annual Budget Costs per MWh	\$741	\$649	\$1,126	\$61	\$470	(\$657)
Variable Costs per MWh	\$137	\$106	\$213	\$56	\$139	(\$74)
Fixed Costs per KW Month	\$14	\$14	\$12	\$12	\$12	\$1

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

Projects	Notes	Total	FY 2021 Budget	Proposed 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	Forecast FY 2031
Operations & Maintenance (O&M)													
High Energy Pipe Inspection	M	\$ 17,500		\$ -	\$ -	\$ -	\$ -	\$ 17,500	\$ -	\$ -	\$ -	\$ -	\$ -
Gas Compressor C OH	D	\$ 20,000		20,000									
STIG 480V MCC Breaker Maintenance	M	35,000	-	-	35,000	-	-	-	-	-	-	-	-
Ammonia System Major Maintenance (15.13'	M	36,000	30,000	-	-	-	-	6,000	-	-	-	-	-
Gas Plants Shared Projects	D	19,800	-	19,800	-	-	-	-	-	-	-	-	-
Total O&M Projects Funding Requirement		\$ 128,300	\$ 30,000	\$ 39,800	\$ 35,000	\$ -	\$ -	\$ 23,500	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Projects													
Decommissioning Costs	D	\$ 12,600,000	\$ -	\$ -	\$ -	\$ -	\$ 4,276,925	\$ 5,639,946	\$ 2,683,129	\$ -	\$ -	\$ -	\$ -
Vehicles (5% Share)	D	35,750	6,500	6,500	6,500	6,500	6,500						
Total Capital Projects Funding Requirement		\$ 12,635,750	\$ 6,500	\$ 6,500	\$ 6,500	\$ 6,500	\$ 4,283,425	\$ 5,639,946	\$ 2,683,129	\$ -	\$ -	\$ -	\$ -

Notes:

- D Discretionary
- M Mandatory

Northern California Power Agency
Combustion Turbine Project No. Two (STIG)
Maintenance Reserve
Budget FY 2022

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											
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Authorized Contingency Balance	<u>\$500,000</u>											
Reserve Activity												
Excess funding	117,280											
Contingent maintenance	500,000											
Annual Funding Req. *		-	-	-	-	-	-	-	-	-	-	-
Decommissioning costs funding												
Balance	\$617,280	\$617,280	\$617,280	\$617,280	\$617,280	\$617,280	\$617,280	\$617,280	\$617,280	\$617,280	\$617,280	\$617,280

Northern California Power Agency
Combustion Turbine No.2 Allocation of Project Budget
FY 2022

	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		12,003	2,281	4,741	193	4,788
PROJECT COSTS:						
Routine O&M:						
Variable costs	Note A	\$ 158,633	\$ 30,140	\$ 62,660	\$ 2,551	\$ 63,282
Fixed costs	GES	510,014	96,903	201,456	25,501	186,155
Administration	GES	50,965	9,683	20,131	2,548	18,602
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	972,867	184,845	384,282	48,643	355,096
Other Costs:						
Fuel and LDC costs	Note A	582,164	110,611	229,955	11,469	230,129
Fuel administration costs	GES	19,381	3,682	7,655	969	7,074
Fuel and pipeline transport	GES	683,206	129,809	269,866	35,328	248,202
GHG Allowance Costs	GES	104,146	19,788	41,138	1,686	41,535
CAISO charges	Note B	135,930	25,827	53,692	2,810	53,601
Debt service	GES	5,048,000	959,120	1,993,960	252,400	1,842,520
Insurance	GES	171,655	32,614	67,804	8,583	62,654
Other costs	GES	12,520	2,379	4,945	626	4,570
Generation Services Shared	GES	56,320	10,701	22,246	2,816	20,557
Administrative & General	GES	316,855	60,202	125,158	15,843	115,652
Projects:	GES					
O&M and Capital	GES	46,300	8,797	18,289	2,315	16,900
Maintenance Reserve	GES	-	-	-	-	-
Total Project Costs	GES	8,962,379	1,702,852	3,540,140	418,759	3,300,629
Project Revenues						
ISO Energy sales	Note B	1,320,850	250,962	521,736	16,865	531,288
Fuel and pipeline transport credit	GES	1,788,156	339,750	706,322	89,408	652,677
GHG Allowance Credits	GES	104,146	19,788	41,138	1,686	41,535
Interest income	GES	108,662	20,646	42,921	5,433	39,662
Total Project Revenues		3,321,814	631,145	1,312,117	113,392	1,265,161
Annual Project Revenue, net		\$ 5,640,565	\$ 1,071,707	\$ 2,228,023	\$ 305,367	\$ 2,035,468
Estimated price per Mwh		\$ 469.93	\$ 469.93	\$ 469.93	\$ 1,582.21	\$ 425.10
FY 2021 Net Annual Project Costs						
		\$ 5,617,806	1,067,383	2,219,033	286,389	2,045,001
Net Project Cost Decrease		\$ 22,759	4,324	8,990	18,978	(9,533)
		0.41%	0.41%	0.41%	6.63%	-0.47%
Summary of Variable and Fixed Project Costs:						
Variable Costs		\$ 1,664,079	\$ 316,175	\$ 657,311	\$ 53,844	\$ 636,749
Fixed Costs		7,298,300	1,386,677	2,882,829	364,915	2,663,880
Total Project Costs		\$ 8,962,379	\$ 1,702,852	\$ 3,540,140	\$ 418,759	\$ 3,300,629

¹ 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 2022

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. LEC is planning to conduct a Major Maintenance outage and will be down for three months to complete. The primary driver for the maintenance is the steam turbine and generators. The combustion turbine was replaced in FY20 and does not require maintenance.

Maintenance Reserve

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

- Anticipated costs of estimated scheduled overhauls;
- A portion of the deductible of an insured loss may be absorbed for the fiscal year (currently \$978,000 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 \$1,875,102 for FY 2022

Projects

Capital Projects for FY 2022 total \$1,756,500, and O&M Projects total \$1,375,308.

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Variable Costs						
Variable O&M	\$5,381,629	\$3,291,274	\$5,436,362	\$1,525,544	\$3,601,753	(\$1,834,609)
Fuel & LDC Costs	39,513,147	21,870,593	32,955,703	15,882,941	31,029,301	(1,926,402)
GHG Allowance Costs	0	66,072	8,695,359	16,680	6,268,971	(2,426,388)
CA ISO Charges	883,969	1,349,571	780,841	535,635	470,645	(310,196)
CA ISO Energy Purchases	3,826,263	1,457,986	3,049,750	966,401	2,666,658	(383,092)
Total Variable Costs	49,605,008	28,035,496	50,918,016	18,927,201	44,037,328	(6,880,687)
Routine O & M Costs						
Fixed O&M	2,646,090	3,769,955	2,717,065	1,947,048	2,989,071	272,006
Administration	209,845	121,244	211,377	56,680	216,277	4,900
Mandatory Costs	304,750	467,766	309,455	274,846	312,245	2,790
Inventory Stock	0	0	0	7,485	0	0
Routine O & M Costs without Labor	3,160,685	4,358,965	3,237,898	2,286,059	3,517,593	279,696
Labor	5,558,310	5,669,070	5,789,039	2,748,467	6,040,384	251,345
Total Routine O & M Costs	8,718,995	10,028,035	9,026,937	5,034,526	9,557,977	531,041
Other Plant Costs						
Debt Service	26,054,428	26,026,082	26,023,835	13,011,918	26,008,267	(15,568)
Insurance	0	797,306	898,336	397,966	1,576,482	678,146
Other Costs	128,792	188,874	106,546	25,396	128,171	21,625
Generation Services Shared	339,783	398,773	353,712	165,577	364,833	11,121
Administrative & General	2,105,792	2,055,103	2,317,930	965,643	2,133,321	(184,609)
Power Management Allocated Costs	1,439,156	1,383,607	1,523,860	761,930	1,503,669	(20,191)
Total Other Plant Costs	30,067,951	30,849,745	31,224,219	15,328,430	31,714,743	490,524
Total O & M Costs	88,391,954	68,913,276	91,169,172	39,290,157	85,310,048	(5,859,122)
Projects						
Operations & Maintenance	917,433	45,265,569	1,060,956	(238,088)	1,375,308	314,352
Capital	2,919,108	4,004,571	6,500	578,606	1,756,500	1,750,000
Maintenance Reserve	1,496,174	1,496,174	1,838,332	919,166	1,875,102	36,770
Total Projects	5,332,715	50,766,314	2,905,788	1,259,684	5,006,910	2,101,122
Annual Budget Cost	93,724,669	119,679,590	94,074,960	40,549,841	90,316,958	(3,758,000)
Less: Third Party Revenue						
ISO Energy Sales	72,602,551	35,864,533	55,590,251	31,849,778	49,394,211	(6,196,040)
Ancillary Services Sales	1,432,533	1,202,519	1,711,986	1,146,638	1,152,080	(559,906)
GHG Allowance Credits	0	0	8,463,375	0	6,101,721	(2,361,654)
Interest Income - Operations	94,945	292,149	94,945	82,156	94,945	0
Interest Income (NCPA)	242,355	248,674	242,355	52,701	242,355	0
Interest Income (CDWR)	48,545	61,474	48,545	7,505	48,545	0
Insurance Receipts	0	42,948,915	0	(34,342)	0	0
Other Income	0	1,661,043	0	69,392	0	0
	74,420,929	82,279,307	66,151,457	33,173,828	57,033,857	(9,117,600)
Net Annual Budget Cost To Participants	\$19,303,740	\$37,400,283	\$27,923,503	\$7,376,013	\$33,283,101	\$5,359,598
Total Variable Costs	\$49,605,008	\$28,035,496	\$50,918,016	\$18,927,201	\$44,037,328	(\$6,880,687)
Total Fixed Costs	44,119,661	91,644,094	43,156,944	21,622,640	46,279,630	3,122,687
	\$93,724,669	\$119,679,590	\$94,074,960	\$40,549,841	\$90,316,958	(\$3,758,000)
Natural Gas (mmBtu)						
Net Annual Generation (MWh)	1,599,464	865,839	1,316,988	604,482	945,377	(371,611)
Net Annual Budget Costs per MWh	\$12	\$43	\$21	\$12	\$35	\$14
Variable Costs per MWh	\$31	\$32	\$39	\$31	\$47	\$8
Fixed Costs per KW Month	\$13	\$27	\$13	\$13	\$14	\$1

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

Projects	Notes	Total	FY 2021 Budget	Proposed 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	Forecast FY 2031
Operations & Maintenance (O&M)													
Gas Turbine Insulation	M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Steam Turbine Insulation	M	\$ 275,000		275,000									
Service Water Piping	M	300,000	-	50,000	75,000	75,000	100,000	-	-	-	-	-	-
Asphalt & Paving Maintenance	M	60,000	60,000	-	-	-	-	-	-	-	-	-	-
Water Plant EDI/RO	M	56,000	56,000	-	-	-	-	-	-	-	-	-	-
Gas Plants Shared Projects	D	77,000	-	77,000	-	-	-	-	-	-	-	-	-
Annual Maintenance Outage	M	12,102,803	944,956	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	1,269,942
Total O&M Projects Funding Requirement		\$ 12,870,803	\$ 1,060,956	\$ 1,375,305	\$ 1,077,504	\$ 1,107,579	\$ 1,163,556	\$ 1,095,463	\$ 1,128,327	\$ 1,162,177	\$ 1,197,042	\$ 1,232,953	\$ 1,269,942
Capital Projects													
Civil / Structural	D	\$ 2,690,000	\$ -	\$ 250,000	\$ 680,000	\$ 80,000	\$ 100,000	\$ 155,000	\$ 775,000	\$ 650,000	\$ -	\$ -	\$ -
DCS Software Upgrades	D	600,000	-	-	-	-	-	600,000	-	-	-	-	-
DCS Hardware Updates	D	250,000	-	-	-	250,000	-	-	-	-	-	-	-
Clarifier Tank Refurbishment	M	400,000	-	-	-	-	-	400,000	-	-	-	-	-
BOP PLC Upgrades	D	125,000	-	-	-	-	-	125,000	-	-	-	-	-
Vehicles (5% Share)	D	26,000	6,500	6,500	6,500	6,500	-	-	-	-	-	-	-
Torque Converter Spare	D	1,500,000		1,500,000									
Unidentified Capital Project	D	4,227,238	-		500,000	-	550,000	-	575,000	603,750	633,938	665,634	698,916
Total Capital Projects Funding Requirement		\$ 9,818,238	\$ 6,500	\$ 1,756,500	\$ 1,186,500	\$ 336,500	\$ 650,000	\$ 1,280,000	\$ 1,350,000	\$ 1,253,750	\$ 633,938	\$ 665,634	\$ 698,916

Notes:

- D Discretionary
- M Mandatory

**Northern California Power Agency
Maintenance Reserves - Lodi Energy Center
Budget FY 2022**

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										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
LEC:											
Beginning Reserve Balance	\$ 3,584,435	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Projected Reserve Expenditures -											
Combustion Turbine (Overhaul)	(135,000)	(940,000)	-	-	-	(2,693,188)	-	-	(50,000)	(400,000)	-
Steam Turbine	-	(740,000)	-	-	(20,000)	-	-	-	-	(125,000)	(800,000)
Generators	-	-	-	(70,000)	-	(79,942)	-	-	-	-	-
Balance of Plant	(3,460,000)	(950,000)	(1,315,000)	(1,675,000)	(440,000)	(500,000)	(910,000)	(1,440,927)	(620,000)	(1,440,031)	(846,803)
HRSG	(300,000)	(215,000)	(450,000)	(40,000)	-	(540,000)	(175,000)	(1,240,000)	(300,000)	(40,000)	(300,000)
Total Projected Expenditures	(3,895,000)	(2,845,000)	(1,765,000)	(1,785,000)	(460,000)	(3,813,130)	(1,085,000)	(2,680,927)	(970,000)	(2,005,031)	(1,946,803)
Projected Reserve Funding -											
Maintenance Contingency	-	-	-	-	-	-	-	-	-	-	-
Unit Overhaul	763,225	778,491	794,123	810,130	829,573	849,483	869,871	890,748	912,126	934,017	956,433
Combustion Turbine (overhaul)	333,511	340,182	347,013	354,008	362,504	371,204	380,113	389,236	398,577	408,143	417,938
Steam Turbine	133,225	135,889	138,618	141,412	144,806	148,281	151,840	155,484	159,216	163,037	166,950
Generators	11,855	12,092	12,335	12,584	12,886	13,195	13,512	13,836	14,168	14,508	14,856
HRSG	284,634	290,327	296,157	302,127	309,378	316,803	324,406	332,192	340,165	348,328	356,688
Balance of Plant	1,075,107	1,096,611	1,118,631	1,141,180	1,168,568	1,196,614	1,225,333	1,254,741	1,284,855	1,315,691	1,347,268
Total Projected Funding	1,838,332	1,875,102	1,912,754	1,951,310	1,998,142	2,046,097	2,095,204	2,145,488	2,196,980	2,249,708	2,303,701
Cumulative Balance	\$ 1,527,767	\$ 557,870	\$ 705,624	\$ 871,934	\$ 2,410,076	\$ 643,043	\$ 1,653,247	\$ 1,117,808	\$ 2,344,788	\$ 2,589,465	\$ 2,946,362

LODI ENERGY CENTER
Allocation of Project Budget
FY 2022

ALLOCATION PERCENTAGES:

Allocation	Allocated by	Total	Azusa	BART	Biggs	CDWR	Gridley	Healdsburg	Lodi	Lompoc	MID	Plumas-Sierra	PWRPA	SVP	Ukiah
Generation Entitlement Share ⁽¹⁾	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		945,377	26,335	62,395	2,533	316,701	18,570	15,531	89,811	19,245	101,291	7,428	25,222	243,435	16,882
---------------	--	---------	--------	--------	-------	---------	--------	--------	--------	--------	---------	-------	--------	---------	--------

PROJECT COSTS:

Fuel Cost	GES	\$	31,029,301	\$	864,383	\$	2,047,934	\$	83,127	\$	10,394,816	\$	609,509	\$	509,750	\$	2,947,784	\$	631,663	\$	3,324,572	\$	243,797	\$	827,831	\$	7,990,044	\$	554,090
GHG Allowance Costs	GES	\$	6,268,971	\$	174,635	\$	413,752	\$	16,795	\$	2,100,105	\$	123,141	\$	102,987	\$	595,552	\$	127,617	\$	671,676	\$	49,255	\$	167,250	\$	1,614,260	\$	111,945
Labor	GES	\$	6,040,384	\$	168,267	\$	398,665	\$	16,182	\$	2,023,529	\$	118,651	\$	99,231	\$	573,836	\$	122,964	\$	647,185	\$	47,459	\$	161,151	\$	1,555,399	\$	107,863
Variable O&M	GES	\$	3,601,753	\$	100,334	\$	237,716	\$	9,649	\$	1,206,587	\$	70,749	\$	59,170	\$	342,167	\$	73,321	\$	385,903	\$	28,299	\$	96,091	\$	927,451	\$	64,317
Fixed O&M	GES	\$	2,989,071	\$	83,267	\$	197,279	\$	8,008	\$	1,001,339	\$	58,714	\$	49,104	\$	283,962	\$	60,849	\$	320,258	\$	23,485	\$	79,745	\$	769,686	\$	53,376
O&M Administration	GES	\$	216,277	\$	6,025	\$	14,274	\$	579	\$	72,453	\$	4,248	\$	3,553	\$	20,546	\$	4,403	\$	23,173	\$	1,699	\$	5,770	\$	55,691	\$	3,862
Mandatory Costs	GES	\$	312,245	\$	8,698	\$	20,608	\$	837	\$	104,602	\$	6,133	\$	5,130	\$	29,663	\$	6,356	\$	33,455	\$	2,453	\$	8,330	\$	80,403	\$	5,576
Inventory Stock	GES	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
O&M and Capital Projects Costs	GES	\$	3,131,808	\$	87,243	\$	206,699	\$	8,390	\$	1,049,156	\$	61,518	\$	51,449	\$	297,522	\$	63,754	\$	335,551	\$	24,607	\$	83,554	\$	806,441	\$	55,925
Maintenance Reserve	GES	\$	1,875,102	\$	52,235	\$	123,757	\$	5,023	\$	628,159	\$	36,833	\$	30,804	\$	178,135	\$	38,171	\$	200,904	\$	14,733	\$	50,026	\$	482,839	\$	33,484
Insurance	GES	\$	1,576,482	\$	43,916	\$	104,048	\$	4,223	\$	528,121	\$	30,967	\$	25,898	\$	149,766	\$	32,092	\$	168,909	\$	12,386	\$	42,059	\$	405,944	\$	28,151
Other Costs	GES	\$	60,000	\$	1,671	\$	3,960	\$	161	\$	20,100	\$	1,179	\$	986	\$	5,700	\$	1,221	\$	6,429	\$	471	\$	1,601	\$	15,450	\$	1,071
Generation Services Shared	GES	\$	364,833	\$	10,163	\$	24,079	\$	977	\$	122,219	\$	7,166	\$	5,993	\$	34,659	\$	7,427	\$	39,089	\$	2,866	\$	9,733	\$	93,944	\$	6,515
Transmission (CAISO)	GES	\$	470,645	\$	13,111	\$	31,063	\$	1,261	\$	157,666	\$	9,245	\$	7,732	\$	44,711	\$	9,581	\$	50,426	\$	3,698	\$	12,556	\$	121,191	\$	8,404
Energy Purchases (CAISO)	GES	\$	2,666,658	\$	74,285	\$	175,999	\$	7,144	\$	893,330	\$	52,381	\$	43,808	\$	253,333	\$	54,285	\$	285,714	\$	20,952	\$	71,144	\$	686,664	\$	47,619
Debt Service Cost:																													
Indenture Group A Cost	ICS A	\$	20,914,451	\$	1,044,384	\$	2,474,389	\$	100,431	\$	-	\$	736,440	\$	615,889	\$	3,561,626	\$	763,189	\$	-	\$	294,559	\$	1,000,213	\$	9,653,860	\$	669,472
BAB's Subsidy (Group A)	ICS A	\$	(4,261,953)	\$	(212,825)	\$	(504,232)	\$	(20,466)	\$	-	\$	(150,072)	\$	(125,506)	\$	(725,789)	\$	(155,523)	\$	-	\$	(60,025)	\$	(203,824)	\$	(1,967,266)	\$	(136,425)
Debt and Trustee Fees (Group A)	ICS A	\$	44,611	\$	2,228	\$	5,278	\$	214	\$	-	\$	1,571	\$	1,314	\$	7,597	\$	1,628	\$	-	\$	628	\$	2,133	\$	20,592	\$	1,428
Indenture Group B Cost	ICS B	\$	11,214,870	\$	-	\$	-	\$	-	\$	11,214,870	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
BAB's Subsidy (Group B)	ICS B	\$	(1,859,101)	\$	-	\$	-	\$	-	\$	(1,859,101)	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Debt and Trustee Fees (Group B)	ICS B	\$	23,560	\$	-	\$	-	\$	-	\$	23,560	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Administrative & General	GES	\$	2,133,321	\$	59,428	\$	140,799	\$	5,715	\$	714,663	\$	41,905	\$	35,046	\$	202,665	\$	43,428	\$	228,570	\$	16,762	\$	56,915	\$	549,330	\$	38,095
Power Management Allocated Costs	GES	\$	1,503,669	\$	41,888	\$	99,242	\$	4,028	\$	503,729	\$	29,537	\$	24,702	\$	142,849	\$	30,610	\$	161,108	\$	11,814	\$	40,116	\$	387,195	\$	26,851
Total Project Costs		\$	90,316,958	\$	2,623,335	\$	6,215,309	\$	252,280	\$	30,899,903	\$	1,849,815	\$	1,547,041	\$	8,946,284	\$	1,917,038	\$	6,882,922	\$	739,900	\$	2,512,395	\$	24,249,118	\$	1,681,617
Estimated price per MWh		\$	95.54	\$	99.61	\$	99.61	\$	99.61	\$	97.57	\$	99.61	\$	99.61	\$	99.61	\$	99.61	\$	67.95	\$	99.61	\$	99.61	\$	99.61	\$	99.61

Third Party Revenue																													
ISO Energy Sales	GES	\$	49,394,211	\$	1,375,975	\$	3,260,018	\$	132,327	\$	16,547,061	\$	970,250	\$	811,448	\$	4,692,450	\$	1,005,518	\$	5,292,244	\$	388,090	\$	1,317,788	\$	12,719,009	\$	882,032
Ancillary Services Sales	GES	\$	1,152,080	\$	32,093	\$	76,037	\$	3,086	\$	385,947	\$	22,630	\$	18,926	\$	109,448	\$	23,453	\$	123,437	\$	9,052	\$	30,736	\$	296,661	\$	20,573
GHG Allowance Credits	GES	\$	6,101,721	\$	174,635	\$	413,752	\$	16,795	\$	2,100,105	\$	123,141	\$	102,987	\$	595,552	\$	127,617	\$	671,676	\$	49,255	\$	-	\$	1,614,260	\$	111,945
Interest & Other Income	GES	\$	94,945	\$	2,645	\$	6,266	\$	254	\$	31,807	\$	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	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
			\$ 57,033,857		\$ 1,597,450		\$ 3,784,747		\$ 153,626		\$ 19,113,464		\$ 1,126,421		\$ 942,058		\$ 5,447,742		\$ 1,167,365		\$ 6,097,530		\$ 450,557		\$ 1,362,648		\$ 14,766,246		\$ 1,024,003

Annual Project Costs, net		\$	33,283,101	\$	1,025,885	\$	2,430,563	\$	98,654	\$	11,786,439	\$	723,394	\$	604,983	\$	3,498,542	\$	749,674	\$	785,392	\$	289,343	\$	1,149,747	\$	9,482,872	\$	657,614
Estimated price per Mwh, net		\$	35.21	\$	38.95	\$	38.95	\$	38.95	\$	37.22	\$	38.95	\$	38.95	\$	38.95	\$	38.95	\$	7.75	\$	38.95	\$	45.59	\$	38.95	\$	38.95

JPA Assessment (per PMOA)		\$	52,606	\$	2,950	\$	-	\$	-	\$	35,482	\$	-	\$	-	\$	-	\$	-	\$	-	\$	11,348	\$	-	\$	2,826	\$	-
---------------------------	--	----	--------	----	-------	----	---	----	---	----	--------	----	---	----	---	----	---	----	---	----	---	----	--------	----	---	----	-------	----	---

Summary of Variable and Fixed Project Costs:

Variable Costs	\$	44,037,328	\$	1,226,748	\$	2,906,464	\$	117,976	\$	14,752,505	\$	865,025	\$	723,446	\$	4,183,546	\$	896,468	\$	4,718,291	\$	346,001	\$	1,174,872	\$	11,339,611	\$	786,375
Fixed Costs	\$	46,279,630	\$	1,396,587	\$	3,308,846	\$	134,304	\$	16,147,398	\$	984,790	\$	823,595	\$	4,762,737	\$	1,020,571	\$	2,164,631	\$	393,899	\$	1,337,524	\$	12,909,507	\$	895,243
	\$	90,316,958	\$	2,623,335	\$	6,215,309	\$	252,280	\$	30,899,903	\$	1,849,815	\$	1,547,041	\$	8,946,284	\$	1,917,038	\$	6,882,922	\$	739,900	\$	2,512,395	\$	24,249,118	\$	1,681,617

FY 2021 Approved Budget (For Comparison Purpose):

Net Annual Project Costs	\$	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
--------------------------	----	------------	----	---------	----	-----------	----	--------	----	-----------	----	---------	----	---------	----	-----------	----	---------	----	---------	----	---------	----	-----------	----	-----------	----	---------

Project Costs Increase	\$	5,359,598	\$	151,192	\$	358,212	\$	14,540	\$	1,813,918	\$	106,611	\$	89,162	\$	515,608	\$	110,487	\$	582,673	\$	42,643	\$	80,065	\$	1,397,568	\$	96,918
		19.19%		17.29%		17.29%		18.19%		17.29%		17.29%		17.29%		17.29%		17.29%		287.43%		17.29%		7.48%		17.29%		17.29%

Note: 1 Generation Entitlement Share (GES) is synonymous with commonly used terms of Project Entitlement Share, Project Percentage, Project Share, Third Phase share.

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Shared Costs						
Fixed O&M	\$279,525	\$278,390	\$294,276	\$123,038	\$304,484	\$10,208
Administration	253,350	164,524	254,750	80,800	261,750	7,000
Mandatory	40,000	61,761	40,000	7,718	40,000	0
O&M Projects	0	0	0	0	110,000	110,000
Shared Costs without Labor	\$572,875	\$504,675	\$589,026	\$211,556	\$716,234	\$127,208
Summary of Costs by Subprograms per PMOA Schedule 4.00						
Anhydrous Ammonia System (Alloc 1)	10,000	0	10,000	4,468	9,000	(1,000)
Administration/Warehouse Building (Alloc 2)	471,875	416,803	476,522	179,256	615,730	139,208
230 Kv Switchyard Common Equip (Alloc 4)	45,000	39,179	45,000	717	36,000	(9,000)
Tooling and Special Equipment (Alloc 5)	7,000	23,355	16,504	6,020	16,504	0
Vehicle Usage (Alloc 7)	39,000	25,338	41,000	21,095	39,000	(2,000)
	\$572,875	\$504,675	\$589,026	\$211,556	\$716,234	\$127,208
Liquidation to Plants						
CT 1						
O&M & Inventory	\$57,363	\$48,469	\$60,693	\$30,600	\$61,558	\$865
Administration	30,402	19,743	30,570	9,696	31,410	840
Mandatory	4,800	7,411	4,800	926	4,800	0
Projects	0	0	0	0	13,200	13,200
	92,565	75,623	96,063	41,222	110,968	14,905
CT 2						
O&M & Inventory	43,666	45,692	46,061	19,255	48,446	2,385
Administration	45,603	29,614	45,855	14,544	47,115	1,260
Mandatory	7,200	11,117	7,200	1,389	7,200	0
Projects	0	0	0	0	19,800	19,800
	96,469	86,423	99,116	35,188	122,561	23,445
LEC						
O&M & Inventory	178,496	184,228	187,522	73,183	194,480	6,958
Administration	177,345	115,169	178,325	56,560	183,225	4,900
Mandatory	28,000	43,232	28,000	5,403	28,000	0
Projects	0	0	0	0	77,000	77,000
	383,841	342,629	393,847	135,146	482,705	88,858
	\$572,875	\$504,675	\$589,026	\$211,556	\$716,234	\$127,208

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Fixed O&M Costs						
Services -						
Legal Services (Alloc 2)	11,000	0	10,000	0	10,000	0
Tools/Shop/Warehouse (Alloc 2)	5,000	4,781	7,000	5,967	7,000	0
Buildings and Grounds (Alloc 2)	22,000	15,071	22,000	3,878	22,000	0
Ammonia System (Alloc 1)	9,000	0	9,000	4,468	9,000	0
Switchyard (Alloc 4)	12,000	39,078	12,000	361	12,000	0
Overall Facility Expense (Alloc 2)	1,025	0	0	13,414	0	0
Network/Communication (Alloc 5)	0	13,614	9,504	6,020	9,504	0
Balance of Plant (Alloc 2)	12,000	4,940	12,000	0	12,000	0
Electric/Control (Alloc 2)	3,000	810	3,000	11,820	3,000	0
Vehicle (Alloc 7)	12,000	3,716	14,000	1,548	14,000	0
	87,025	82,010	98,504	47,476	98,504	0
Materials & Supplies -						
Buildings and Grounds (Alloc 2)	20,000	13,635	15,000	1,395	14,000	(1,000)
Overall Facility Expense (Alloc 2)	14,500	27,043	13,000	10,817	20,000	7,000
Ammonia System (Alloc 1)	1,000	0	1,000	0	0	(1,000)
Switchyard (Alloc 4)	5,000	101	5,000	356	5,000	0
Network/Communication (Alloc 5)	7,000	9,741	7,000	0	7,000	0
Balance of Plant (Alloc 2)	5,000	9,753	5,000	828	7,000	2,000
Tools/Shop/Warehouse Equipment (Alloc 2)	35,000	52,539	40,000	17,293	45,000	5,000
Electric/Control (Alloc 2)	2,000	9,180	5,480	583	5,480	0
Vehicle (Alloc 7)	27,000	21,622	27,000	19,551	25,000	(2,000)
	116,500	143,614	118,480	50,823	128,480	10,000
Other Costs -						
Telephone & Dedicated Comm. (Alloc 2)	3,000	0	3,000	0	1,500	(1,500)
Maintenance Connection (Alloc 4)	28,000	0	28,000	0	19,000	(9,000)
Aux Power and Utilities (Alloc 2)	35,000	52,766	35,000	24,740	50,000	15,000
Equipment Rentals (Alloc 2)	10,000	0	11,292	0	7,000	(4,292)
	76,000	52,766	77,292	24,740	77,500	208
	\$279,525	\$278,390	\$294,276	\$123,039	\$304,484	\$10,208

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Administration Expense						
Services -						
Office Equipment (Alloc 2)	5,300	0	5,300	0	5,300	0
General Office (Alloc 2)	2,400	1,115	2,400	445	2,400	0
Janitorial Services (Alloc 2)	11,000	21,950	11,000	11,904	12,000	1,000
	18,700	23,065	18,700	12,349	19,700	1,000
Other Costs -						
Travel (Alloc 2)	25,000	14,739	25,000	0	25,000	0
Staff Development (Alloc 2)	53,000	19,488	53,000	11,289	53,000	0
Meals & Per Diems (Alloc 2)	550	2,056	550	68	550	0
Safety Incentive Program (Alloc 2)	1,500	0	1,500	0	1,500	0
Community Relations (Alloc 2)	1,000	0	1,000	0	1,000	0
Janitorial Supplies & Misc Expenses (Alloc 2)	35,000	2,883	35,000	1,185	35,000	0
Office Equipment (Alloc 2)	55,000	51,601	55,000	16,475	61,000	6,000
General Office Supplies (Alloc 2)	40,000	20,866	40,000	15,961	40,000	0
Computer (software,hardware,network,...) (Alloc 2)	10,000	0	10,000	412	10,000	0
Awards/Functions/Meetings (Alloc 2)	11,000	7,991	11,000	1,355	11,000	0
Publications (Alloc 2)	2,600	17,411	4,000	18,043	4,000	0
COVID-19 Costs (Alloc 2)	0	4,424	0	3,665	0	0
	234,650	141,459	236,050	68,453	242,050	6,000
	\$253,350	\$164,524	\$254,750	\$80,802	\$261,750	\$7,000
Mandatory Costs						
Services -						
Safety Services (Alloc 2)	0	23,408	0	0	0	0
	0	23,408	0	0	0	0
Other Costs -						
Permit Fees (Alloc 2)	0	33	0	0	0	0
Environmental Supplies (Alloc 2)	0	4,437	0	31	0	0
Safety Supplies & Equipment (Alloc 2)	40,000	33,883	40,000	7,688	40,000	0
	40,000	38,353	40,000	7,719	40,000	0
	40,000	61,761	40,000	7,719	40,000	0
O&M Projects						
Admin Building AC/Heat (Alloc 2)	0	0	0	0	110,000	110,000
	0	0	0	0	110,000	110,000

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Routine O&M Costs						
Operations	\$ 76,401	\$ 148,297	\$ 76,401	\$ 100,693	\$ 117,500	\$ 41,099
Administration	50,500	39,430	50,937	9,458	22,010	(28,927)
Routine O&M w/o Labor	126,901	187,727	127,338	110,151	139,510	12,172
Labor	1,227,032	1,243,260	1,307,647	565,777	1,314,619	6,972
Total Routine O&M Costs	1,353,933	1,430,987	1,434,985	675,928	1,454,129	19,144
Occupancy Cost	63,249	62,033	61,230	24,483	94,751	33,521
Annual Budget Cost	1,417,182	\$ 1,493,020	1,496,215	700,411	1,548,880	52,665
	-	-	-			
Less Funding						
Generation Services Shared - Liquidation	(1,417,182)	(1,493,020)	(1,496,215)	(700,411)	(1,548,880)	(52,665)
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Allocated	Person Years	Allocation					
	FY 22	FY 22 %					
Hydro	19.92	21.4%	\$ 487,532	\$ 349,007	\$ 330,393	\$ 154,664	\$ 330,942 \$ 549
CT 1	4.64	5.0%	80,734	40,180	75,577	35,379	77,087 1,510
CT 2	3.39	3.6%	75,786	58,987	55,661	26,056	56,320 659
LEC	21.96	23.6%	510,711	451,379	353,713	165,581	364,833 11,121
Geo	43.32	46.5%	994,857	823,041	680,871	318,731	719,698 38,827
	93.23	100.0%	\$ 2,149,621	\$ 1,722,594	\$ 1,496,215	\$ 700,411	\$ 1,548,880 \$ 52,665

Allocation based on FTE person years.

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Member Resources						
Contracts						
Alameda	\$11,058,230	\$7,585,828	\$10,773,788	\$3,284,514	\$10,709,924	(\$63,864)
BART	0	0	0	0	6,013,147	6,013,147
Lodi	1,936,423	1,274,388	1,926,744	390,407	1,817,856	(108,888)
Palo Alto	40,444,140	44,161,052	39,371,180	20,285,438	41,425,319	2,054,139
Plumas-Sierra	0	0	444,698	379,948	46,943	(397,755)
Port of Oakland	2,479,726	3,670,842	2,834,749	1,711,476	816,798	(2,017,951)
	55,918,519	56,692,110	55,351,159	26,051,783	60,829,987	5,478,828
ISO Energy Purchases	0	7,210,539	3,403,629	4,098,456	5,165,898	1,762,269
ISO GMC Charges	310,448	320,292	271,947	194,431	1,420,619	1,148,672
Annual Budget Cost	56,228,967	64,222,941	59,026,735	30,344,670	67,416,504	8,389,769
Less: Third Party Revenue						
Energy Sales to Third Parties	1,181,273	15,388,784	7,556,725	8,298,935	13,737,920	6,181,195
ISO Energy Sales	29,156,411	24,982,814	26,421,509	17,683,817	34,352,521	7,931,012
Member Owned Generation (net)	0	0	69,679,260	46,050,154	83,954,288	14,275,028
	30,337,684	40,371,598	103,657,494	72,032,906	132,044,729	28,387,235
Net Annual Budget Cost to Participants	\$25,891,283	\$23,851,343	(\$44,630,759)	(\$41,688,236)	(\$64,628,225)	(\$19,997,466)

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Member Resources - Natural Gas						
Contracts						
Biggs	\$51,088	\$64,531	\$52,783	\$30,282	\$17,319	(\$35,464)
Gridley	235,355	229,089	140,429	103,987	48,359	(92,070)
Healdsburg	285,612	310,989	199,713	175,449	163,958	(35,755)
Lodi	2,089,082	2,183,838	1,429,490	1,271,167	1,280,681	(148,809)
Lompoc	527,462	651,668	423,676	278,486	410,604	(13,072)
Ukiah	352,299	378,779	196,083	170,382	101,596	(94,487)
BART	0	0	0	0	958,905	958,905
Annual Budget Cost	3,540,898	3,818,894	2,442,174	2,029,753	2,981,422	539,248
Gas Transfer Credits						
Biggs	47,719	60,111	50,768	0	21,335	(29,433)
Gridley	222,144	205,816	129,736	0	56,487	(73,249)
Healdsburg	254,979	296,029	195,472	0	180,542	(14,930)
Lodi	2,091,125	1,814,840	1,342,190	0	1,550,617	208,427
Lompoc	510,382	576,952	409,420	0	513,781	104,361
Ukiah	332,906	340,532	188,694	0	118,801	(69,893)
BART	0	0	0	0	970,845	970,845
	3,459,255	3,294,280	2,316,280	0	3,412,408	1,096,128
Interest Income	7,391	0	7,391	3,012	0	(7,391)
Net Annual Budget Cost to Participants	\$74,252	\$524,614	\$118,503	\$2,026,741	(\$430,986)	(\$549,489)

NORTHERN CALIFORNIA POWER AGENCY
Western Resources
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Western Resources						
NCPA Power Pool						
Alameda	\$684,036	\$813,819	\$845,350	\$0	\$838,425	(\$6,925)
Biggs	167,532	235,535	207,038	0	205,341	(1,697)
Gridley	374,946	463,634	463,372	0	459,573	(3,799)
Healdsburg	142,599	174,546	176,230	0	174,786	(1,444)
Lodi	322,851	447,093	398,987	0	395,718	(3,269)
Lompoc	182,958	221,456	226,107	0	224,259	(1,848)
Palo Alto	6,980,424	8,173,759	8,626,587	0	8,555,916	(70,671)
Plumas-Sierra	1,311,921	1,683,726	1,621,312	0	1,608,030	(13,282)
Ukiah	196,131	240,037	242,381	0	240,396	(1,985)
Port of Oakland	343,041	385,891	423,937	0	420,468	(3,469)
Base Resource	0	0	0	5,968,200	0	0
	10,706,439	12,839,496	13,231,301	5,968,200	13,122,912	(108,389)
Restoration Fund	4,884,802	3,861,923	6,234,994	2,236,097	3,641,788	(2,593,206)
Western O&M	7,516,037	8,003,054	10,171,776	2,285,188	10,325,172	153,396
CAISO GMC Charges	217,841	229,057	231,565	3,932,967	212,210	(19,355)
Annual Budget Cost	23,325,119	24,933,530	29,869,636	14,422,452	27,302,082	(2,567,554)
Less: Third Party Revenue						
ISO Energy Sales	18,304,471	21,250,179	17,480,649	-	19,296,646	1,815,997
Displacement Revenue		451,816	0	0	0	0
Western O&M Revenue Credits	7,516,037	8,005,379	10,171,776	3,076,677	10,325,172	153,396
Interest Income	21,862	0	21,862	25,255	0	(21,862)
	25,842,370	29,707,374	27,674,287	3,101,932	29,621,818	1,947,531
Net Annual Budget Cost	(\$2,517,251)	(\$4,773,844)	\$2,195,349	\$11,320,520	(\$2,319,736)	(\$4,515,085)

NORTHERN CALIFORNIA POWER AGENCY
Market Power Purchases
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Market Power Purchases & NCPA Contracts						
Alameda	\$176,890	(\$99,748)	\$173,999	\$0	\$100,213	(\$73,786)
Biggs	23,140	129,263	31,596	0	71,419	39,823
Gridley	405,956	274,699	151,592	0	339,341	187,749
Healdsburg	0	120,807	0	0	128,158	128,158
Lodi	1,063,374	5,003,977	2,919,814	0	4,645,756	1,725,942
Lompoc	459,568	1,331,802	537,617	0	656,930	119,313
Palo Alto	0	398,846	0	0	1,363,952	1,363,952
Plumas-Sierra	0	144,790	0	0	0	0
Port of Oakland	0	66,194	0	0	1,943,571	1,943,571
Ukiah	56,875	98,133	11,464	0	131,039	119,575
BART	12,782,687	16,531,344	23,398,713	0	6,720,344	(16,678,369)
Pioneer CE	0	42,500	0	0	0	0
East Bay CE	0	63,750	0	0	0	0
	14,968,490	24,106,357	27,224,795	0	16,100,723	(11,124,072)
ISO Energy Purchases	0	592,262	23,506	671,027	1,114,010	1,090,504
ISO GMC Charges	154,992	170,754	167,084	95,380	10,070	(157,014)
Annual Budget Cost	\$15,123,482	\$24,869,373	\$27,415,385	\$766,407	\$17,224,803	(\$10,190,582)
Less: Third Party Revenue						
ISO Energy Sales	15,623,339	16,666,248	18,914,977	11,042,975	12,614,852	(6,300,125)
Third Party Sales	0	1,153,563	0	0	1,267,533	1,267,533
	15,623,339	17,819,811	18,914,977	11,042,975	13,882,385	(5,032,592)
Net Annual Budget Cost to Participants	(\$499,857)	\$7,049,562	\$8,500,408	(\$10,276,568)	\$3,342,418	(\$5,157,990)

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Alameda	\$13,573,417	\$11,589,869	\$13,349,525	\$6,439,830	\$14,868,523	\$1,518,998
Biggs	643,421	570,984	599,406	345,678	690,172	90,766
Gridley	1,396,750	1,221,207	1,370,162	878,508	1,614,882	244,720
Healdsburg	2,999,705	2,618,884	2,990,482	1,767,610	3,428,939	438,457
Lodi	16,635,028	14,336,426	16,477,332	10,733,821	19,279,223	2,801,891
Lompoc	5,204,146	4,377,241	5,027,261	2,542,401	5,563,978	536,717
Palo Alto	34,474,944	28,908,398	32,407,923	16,516,725	35,155,242	2,747,319
Plumas-Sierra	6,122,239	4,922,975	5,418,404	3,202,802	6,257,924	839,520
Port of Oakland	4,445,472	3,674,567	4,572,051	1,982,411	4,618,112	46,061
Ukiah	4,313,544	3,704,754	4,228,991	2,465,425	4,757,114	528,123
Santa Clara	149,425,754	120,154,268	147,324,702	73,336,506	171,469,722	24,145,020
BART	16,795,173	13,010,637	17,228,862	5,508,036	14,540,230	(2,688,632)
East Bay Community Energy	0	206,458,874	0	0	0	0
San Jose Community Energy	0	155,127,866	0	0	0	0
Annual Budget Cost	256,029,593	570,676,950	250,995,101	125,719,753	282,244,061	31,248,960
Less: Energy Sales						
Alameda	0	133,989	0	116,358	0	0
Biggs	0	15,703	0	7,014	0	0
Gridley	0	17,961	0	29,112	0	0
Healdsburg	0	65,541	0	59,907	0	0
Lodi	0	188,158	0	326,882	0	0
Lompoc	0	53,024	0	32,511	0	0
Palo Alto	0	393,693	0	432,265	0	0
Plumas-Sierra	0	881,176	0	309,261	0	0
Port of Oakland	0	96,467	0	14,688	0	0
Ukiah	0	76,300	0	74,328	0	0
Santa Clara	0	30,992	0	21,956	0	0
BART	0	240,943	0	60,216	0	0
East Bay Community Energy	0	180,933,226	0	0	0	0
San Jose Community Energy	0	141,938,024	0	0	0	0
Total Energy Sales	0	325,065,196	0	1,484,498	0	0
Net Annual Budget Cost to Participa	\$256,029,593	\$245,611,755	\$250,995,101	\$124,235,255	\$282,244,061	\$31,248,960

NORTHERN CALIFORNIA POWER AGENCY
Net GHG Obligations
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Net GHG Obligations						
Alameda	\$0	\$25,740	\$0	\$16,930	\$41,681	\$41,681
BART	263,522	631,960	0	423,250	151,803	151,803
Biggs	0	42,590	0	0	0	0
Gridley	0	68,330	0	0	0	0
Healdsburg	0	59,440	0	133,440	0	0
Lodi	233,433	948,150	0	260,250	1,083,300	1,083,300
Ukiah	0	76,981	0	0	0	0
East Bay CE	0	192,353	0	0	0	0
San Jose CE	0	510,330	0	0	0	0
Net Annual Budget Cost to Participants	\$496,955	\$2,555,874	\$0	\$833,870	\$1,276,784	\$1,276,784
Third Party Revenue						
Customer Revenue	0	702,683	0	0	0	0
Net Annual Cost to Participants	\$496,955	\$1,853,191	\$0	\$833,870	\$1,276,784	\$1,276,784

NORTHERN CALIFORNIA POWER AGENCY
Transmission
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Independent System Operator						
Grid Management Charge	\$2,813,086	\$7,027,728	\$2,674,231	\$3,781,491	\$2,417,506	(\$256,725)
Wheeling Access Charge	110,581,940	112,378,387	112,666,515	53,762,826	119,362,830	6,696,315
Ancillary Services	2,372,540	8,899,669	3,750,030	11,026,047	3,846,319	96,289
Other Charges	1,321,289	(1,987,110)	935,325	27,027,603	946,016	10,691
Annual Budget Costs	\$117,088,855	\$126,318,674	\$120,026,101	\$95,597,967	\$126,572,671	\$6,546,570
Less: Third Party Revenue						
ISO Ancillary Sales	225,134	0	0	597,395	0	0
Interest Income	30,901	0	30,901	20,003	0	(30,901)
Third Party Revenue	256,035	0	30,901	617,398	0	(30,901)
Net Annual Budget Cost to Participants	\$116,832,820	\$126,318,674	\$119,995,200	\$94,980,569	\$126,572,671	\$6,577,471

NORTHERN CALIFORNIA POWER AGENCY
Management Services -- Legislative & Regulatory
FY 2022 Budget

	<u>Legislative</u>		<u>Regulatory</u>		<u>Western</u>	<u>Customer</u>	<u>Proposed</u>		<u>Increase/</u>
	<u>State</u>	<u>Federal</u>	<u>State</u>	<u>Federal</u>	<u>Federal</u>	<u>Programs</u>	<u>FY 2022</u>	<u>FY 2021</u>	<u>(Decrease)</u>
Advocacy	\$ 396,250	\$ 340,525	\$ -	\$ -	\$ 153,000	\$ -	\$ 889,775	\$ 889,775	\$ -
Legal	1,000	0	-	3,000	5,000	-	9,000	29,000	(20,000)
Dues & Memberships	23,370	12,775	-	6,000	-	-	42,145	42,145	-
Regulatory Compliance	-	-	225,000	-	-	-	225,000	250,000	(25,000)
Member Programs	61,400	12,200	-	-	-	122,500	196,100	186,100	10,000
Miscellaneous	11,457	13,771	2,929	3,929	5,057	4,500	41,643	153,642	(112,000)
Total costs w/o Labor	493,477	379,271	227,929	12,929	163,057	127,000	1,403,663	1,550,662	(147,000)
Labor	624,067	281,471	150,236	150,236	411,283	265,645	1,882,938	1,866,819	16,119
Subtotal	1,117,544	660,742	378,165	163,165	574,340	392,645	3,286,601	3,417,481	(130,880)
Administrative & General	190,044	94,669	50,972	31,328	103,560	76,012	546,585	599,783	(53,198)
Occupancy Costs	27,607	10,767	5,155	5,155	16,037	12,600	77,321	70,847	6,474
Annual Budget Cost	1,335,195	766,178	434,292	199,648	693,937	481,257	3,910,507	4,088,111	(177,604)
Less: Third Party Revenues									
Interest Income	1,872	1,075	765	351	2,909	5,828	12,800	12,800	-
Net Annual Budget Cost to Participants	\$ 1,333,323	\$ 765,103	\$ 433,527	\$ 199,297	\$ 691,028	\$ 475,429	\$ 3,897,707	\$ 4,075,311	\$ (177,604)
FY 2021 Net Annual Budget Cost	1,342,619	834,555	477,466	236,698	713,150	470,824	4,075,311		
Increase/(Decrease)	\$ (9,296)	\$ (69,452)	\$ (43,939)	\$ (37,401)	\$ (22,122)	\$ 4,605	\$ (177,604)		

Legislative Representation

FY 2022

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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Legislative						
State:						
State Legislature	\$617,458	\$635,655	\$632,459	\$262,172	\$620,265	(\$12,194)
Member Programs	473,530	459,778	483,194	101,801	497,279	14,085
Federal:						
U.S. Congress	506,402	378,239	497,859	111,271	467,746	(30,113)
Coalition Development	222,188	189,657	219,786	163,970	192,996	(26,790)
	1,819,578	1,663,328	1,833,298	639,214	1,778,286	(55,012)
Administrative & General	276,547	266,114	311,661	126,341	284,713	(26,948)
Occupancy Cost - Main HQ Building	36,005	40,314	35,162	14,053	38,374	3,212
Annual Budget Cost	2,132,130	1,969,757	2,180,121	779,608	2,101,373	(78,748)
Less: Third Party Revenue						
Interest Income	2,947	33	2,947	641	2,947	0
Net Annual Budget Cost to Participants	\$2,129,183	\$1,969,724	\$2,177,174	\$778,967	\$2,098,426	(\$78,748)

NORTHERN CALIFORNIA POWER AGENCY
Legislative Representation
Comparative Draft Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
State Legislature						
Salaries & Benefits	\$319,632	\$367,693	\$339,639	\$189,778	\$342,445	\$2,806
Outside Services						
Legal Services - State Legislative	12,000	0	6,000	0	1,000	(5,000)
Agency Advocate	168,000	168,000	168,000	70,000	168,000	0
	180,000	168,000	174,000	70,000	169,000	0
Other Costs						0
Travel- AGM- Leg/Reg	2,750	2,587	2,750	294	750	(2,000)
Travel- Leg/Reg	4,000	1,902	4,000	0	0	(4,000)
Staff Development -Leg/Reg	4,000	0	4,000	0	0	(4,000)
Expedited Mailings	500	0	500	0	500	0
Office Furniture/Supplies	2,500	2,785	2,500	2,058	2,500	0
Tech & Other Mtg Exp	5,000	3,721	5,000	43	5,000	0
Dues, Subscriptions & Publications	2,500	3,347	2,500	0	2,500	0
Legislative Tour	70,000	45,763	70,000	0	70,000	0
Capitol Day	10,000	6,704	10,000	0	10,000	0
CMUA Dues - NCPA	16,576	33,152	17,570	0	17,570	0
	117,826	99,961	118,820	2,395	108,820	(10,000)
	\$617,458	\$635,655	\$632,459	\$262,172	\$620,265	(\$12,194)
Member Programs						
Salaries & Benefits	\$255,023	\$335,921	\$264,687	\$98,188	\$281,622	\$16,935
Outside Services						
Communications Consultant	10,000	0	10,000	0	10,000	0
Strategic Consultant	5,000	0	5,000	0	5,000	0
Event Planning Consultant	120,000	93,603	120,000	3,488	120,000	0
	135,000	93,603	135,000	3,488	135,000	0
Other Costs						
Travel - AGM - Leg/Reg	1,000	0	1,000	116	350	(650)
Travel - Leg/Reg	2,200	0	2,200	0	0	(2,200)
Member Travel	20,000	0	20,000	0	20,000	0
Meeting Expense	2,857	4,000	2,857	0	2,857	0
Annual Meeting	25,000	25,233	25,000	0	25,000	0
Dues, Subs & Pubs	3,300	195	3,300	10	3,300	0
Strategic Development	900	0	900	0	900	0
Strategic Issues Conference	20,000	825	20,000	0	20,000	0
External Affairs	8,250	0	8,250	0	8,250	0
	83,507	30,253	83,507	126	80,657	(2,850)
	\$473,530	\$459,778	\$483,194	\$101,801	\$497,279	\$14,085

NORTHERN CALIFORNIA POWER AGENCY
Legislative Representation
Comparative Draft Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
U.S. Congress						
Salaries & Benefits - Leg/Reg	\$187,752	\$177,268	\$176,659	\$44,787	\$178,646	\$1,987
Outside Services						
Legal Services	5,000	911	5,000	0	0	(5,000)
Agency Advocate (Ca)	150,000	151,608	150,000	62,500	150,000	0
	155,000	152,519	155,000	62,500	150,000	(5,000)
Other Costs						
Travel - AGM	14,500	6,403	14,500	1,000	2,500	(12,000)
Travel - Leg/Reg	15,800	10,711	15,800	205	700	(15,100)
Expedited Mailings	2,000	1,053	2,000	0	2,000	0
Office Furniture/Supplies	2,000	1,037	2,000	34	2,000	0
APPA/NCPA Annual Legislative Rally	120,000	17,083	120,000	2,000	120,000	0
APPA Winter Rally	7,500	10,156	10,000	0	10,000	0
APPA Dues - NCPA	650	700	700	700	700	0
Dues & Subscriptions	1,200	1,308	1,200	45	1,200	0
	163,650	48,451	166,200	3,984	139,100	(27,100)
	\$506,402	\$378,239	\$497,859	\$111,271	\$467,746	(\$30,113)
Coalition Development						
Salaries & Benefits	\$107,142	\$109,949	\$105,465	\$105,348	\$102,825	(\$2,640)
Outside Services						
Transmmission Access	55,000	54,275	54,275	54,060	54,275	0
Other Costs						
Travel - AGM- Leg/Reg	14,250	4,669	14,250	0	0	(14,250)
Travel - Leg/Reg	9,900	829	9,900	0	0	(9,900)
Expedited Mailings	200	0	200	0	200	0
Meeting Expenses	8,571	8,461	8,571	0	8,571	0
ACWA Annual Dues	1,275	1,275	1,275	0	1,275	0
NWPPA Annual Dues	3,600	3,600	3,600	0	3,600	0
Dues & Subscriptions	6,000	3,123	6,000	2,562	6,000	0
External Affairs	16,250	3,475	16,250	2,000	16,250	0
	60,046	25,432	60,046	4,562	35,896	(24,150)
	\$222,188	\$189,657	\$219,786	\$163,970	\$192,996	(\$26,790)

Regulatory Representation

FY 2022

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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Regulatory						
Federal	\$190,712	\$208,271	\$195,657	\$91,990	\$163,165	(\$32,492)
State	459,512	429,972	414,457	221,113	378,165	(36,292)
	650,224	638,243	610,114	313,103	541,330	(68,784)
Administrative & General	88,492	89,573	95,720	38,232	82,300	(13,420)
Occupancy Cost - Main HQ Building	9,672	11,637	9,446	3,777	10,310	864
Annual Budget Cost	748,388	739,453	715,280	355,113	633,940	(81,340)
Less: Third Party Revenue						
Interest Income	1,116	2,130	1,116	42	1,116	0
Net Annual Budget Cost to Participants	\$747,272	\$737,323	\$714,164	\$355,070	\$632,824	(\$81,340)

NORTHERN CALIFORNIA POWER AGENCY
Regulatory Representation
Comparative Draft Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Federal						
Salaries & Benefits	\$150,983	\$169,402	\$155,928	\$75,063	\$150,236	(\$5,692)
Outside Services						
Legal Services						
Regulatory Counsel	8,000	7,812	8,000	699	3,000	(5,000)
Other Costs						
Travel - AGM	3,300	0	3,300	0	0	(3,300)
Travel - Regulatory	16,500	14,474	16,500	0	0	(16,500)
Staff Development	2,000	0	2,000	0	0	(2,000)
Office Furniture & Computer Supplies	2,000	862	2,000	493	2,000	0
Tech & Other Mtg Exp.	1,429	0	1,429	0	1,429	0
Dues, Subs & Pubs	6,000	15,721	6,000	15,735	6,000	0
Copy & Mailing Expenses	500	0	500	0	500	0
	<u>31,729</u>	<u>31,057</u>	<u>31,729</u>	<u>16,228</u>	<u>9,929</u>	<u>(21,800)</u>
	<u>\$190,712</u>	<u>\$208,271</u>	<u>\$195,657</u>	<u>\$91,990</u>	<u>\$163,165</u>	<u>(\$32,492)</u>
State						
Salaries & Benefits-Leg/Reg	\$150,983	\$191,429	\$155,928	\$134,884	\$150,236	(\$5,692)
Outside Services						
Special Counsel (CPUC)	300,000	234,812	250,000	86,229	225,000	(25,000)
Other Costs						
Travel - AGM	600	0	600	0	0	(600)
Travel - Regulatory	5,000	3,013	5,000	0	0	(5,000)
Office Furniture & Computer Supplies	1,000	136	1,000	0	1,000	0
Meeting Expenses	1,429	583	1,429	0	1,429	0
Copy and Mailing Expenses	500	0	500	0	500	0
	<u>8,529</u>	<u>3,732</u>	<u>8,529</u>	<u>0</u>	<u>2,929</u>	<u>(5,600)</u>
	<u>\$459,512</u>	<u>\$429,972</u>	<u>\$414,457</u>	<u>\$221,113</u>	<u>\$378,165</u>	<u>(\$36,292)</u>

Western Representation

FY 2022

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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31,2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Federal Power Programs						
Salaries & Benefits	\$416,240	\$392,117	\$409,108	\$159,831	\$411,283	\$2,175
Outside Services						
Western Contract Support	20,000	0	0	0	0	0
Special Counsel	20,000	0	10,000	0	5,000	(5,000)
Agency Advocate (Wash DC)	153,000	150,825	153,000	62,500	153,000	0
Other Costs						
Travel - AGM	4,000	0	4,000	0	0	(4,000)
Travel - Western	8,000	3,236	8,000	0	0	(8,000)
Expedited Mailings	200	0	200	0	200	0
Office Furniture/Supplies	2,000	1,679	2,000	1,089	2,000	0
Tech & Other Meeting Expenses	2,857	155	2,857	0	2,857	0
	17,057	5,070	17,057	1,089	5,057	(12,000)
Administrative & General	103,774	86,135	112,200	45,849	103,560	(8,640)
Occupancy Costs	15,046	12,812	14,694	5,874	16,037	1,343
Annual Budget Cost	745,117	646,960	716,059	275,143	693,937	(22,122)
Less: Third Party Revenue						
Interest Income	2,909	2,280	2,909	652	2,909	0
Net Annual Budget Costs to Participants	\$742,208	\$644,680	\$713,150	\$274,492	\$691,028	(\$22,122)

Customer Programs

FY 2022

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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Customer Programs						
Salaries & Benefits	\$255,399	\$140,336	\$259,405	\$108,026	\$265,645	\$6,240
Outside Services						
Public Benefits Efficiency	60,000	58,085	60,000	15,198	60,000	0
Other Costs						
Travel & Staff Development	8,500	3,716	8,500	0	0	(8,500)
Office Supplies	1,000	579	1,000	550	1,000	0
Webinars	3,500	1,173	3,500	1,535	3,500	0
California Electric Transportation Coalition	5,000	5,000	45,000	45,000	55,000	10,000
Workshops & Meetings	7,500	3,516	7,500	1,000	7,500	0
Efficiency Association Dues	2,500	0	0	0	0	0
	<u>343,399</u>	<u>212,405</u>	<u>384,905</u>	<u>171,309</u>	<u>392,645</u>	<u>7,740</u>
Administrative & General	68,457	41,364	80,202	33,098	76,012	(4,190)
Occupancy Cost - Main HQ Building	11,822	7,405	11,545	4,609	12,600	1,055
Annual Budget Cost	423,678	261,174	476,652	209,016	481,257	4,605
Less: Third Party Revenue						
Interest Income	5,828	12,445	5,828	5,419	5,828	0
Other Income	0	51	0	0	0	0
	<u>5,828</u>	<u>12,496</u>	<u>5,828</u>	<u>5,419</u>	<u>5,828</u>	<u>0</u>
Net Annual Budget Cost to Participants	\$417,850	\$248,678	\$470,824	\$203,597	\$475,429	\$4,605

Note: More Than Smart Workgroup name changed to California Electric Transportation Coalition in FY2022

Judicial Action

FY 2022

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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
PRIVILEGED & CONFIDENTIAL						
Power Management Related						
ISO Tariff Rates and Amendments	\$325,000	\$241,464	\$325,000	\$106,866	\$215,000	(\$110,000)
PG&E Rates and IA Amendments	200,000	36,925	75,000	7,212	45,000	(30,000)
Western Rates and Contract Amendments	25,000	-	10,000	0	0	(10,000)
Investigations and Refund Proceedings	25,000	332	10,000	402	0	(10,000)
	575,000	278,720	420,000	114,479	260,000	(160,000)
Regulatory Related						
Legal Contingency Fund	50,000	0	40,000	0	40,000	0
Annual Budget Cost	\$625,000	\$278,720	\$460,000	\$114,479	\$300,000	(\$160,000)

Totals exclude the CVPIA case budget, which is a long-term case funded over multiple years.

**Northern California Power Agency
Management Services -- Power Management
FY 2022 Budget**

	Power Management ¹	Gas Purchase Program	Mkt Purchase Project	Proposed FY 2022	FY 2021	Increase/ (Decrease)
Travel & Staff Development	\$ 30,006	\$ -	\$ -	\$ 30,006	\$ 149,907	\$ (119,901)
Legal	500			500	38,000	(37,500)
Other Professional Services	87,049			87,049	129,300	(42,251)
Brokerage Fees	48,000			48,000	48,000	-
Software & Computer Supplies	256,675			256,675	374,500	(117,825)
Data Comm Lines	182,500			182,500	150,000	32,500
Miscellaneous Supplies & Materials	77,328			77,328	81,823	(4,495)
Total costs w/o Labor	682,058	-	-	682,058	971,530	(289,472)
Labor	8,537,273	60,827	87,113	8,685,213	8,082,670	602,543
Subtotal	9,219,331	60,827	87,113	9,367,271	9,054,200	313,071
Administrative & General	1,978,768	13,943	20,148	2,012,859	2,046,217	(33,358)
Occupancy Cost	492,379	2,088	3,021	497,488	262,383	235,105
Power Mgmt Administrative Liquidation	(9,536)	3,921	5,615	-	-	-
Liquidation to Plants	(44,995)			(44,995)	(38,677)	(6,318)
Annual Budget Cost	11,635,947	80,779	115,897	11,832,623	11,324,123	508,500
Less: Third Party Revenues						
Interest Income	37,381	361	5,157	42,899	42,899	-
Net Annual Budget Cost to Participants	\$ 11,598,566	\$ 80,418	\$ 110,740	\$ 11,789,724	\$ 11,281,224	\$ 508,500
FY 2021 Net Annual Budget Cost	11,087,765	81,377	112,082	11,281,224		
Increase/(Decrease)	\$ 510,801	\$ (959)	\$ (1,342)	\$ 508,500		

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

**Northern California Power Agency
Management Services -- Power Management (Detail)
FY 2022 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 2022	Total Power Mgt FY 2021	Increase/ (Decrease)
Travel & Staff Development	\$ 560	\$ 16,000	\$ 12,156	\$ 1,290	\$ -	\$ -	\$ 30,006	\$ 149,907	\$ (119,901)
Legal					500		500	38,000	(37,500)
Other Professional Services	5,000	39,100	25,000		11,800	6,149	87,049	129,300	(42,251)
Brokerage fees			48,000				48,000	48,000	-
Software & Computer Supplies		104,000	152,675				256,675	374,500	(117,825)
Data Comm lines		182,500					182,500	150,000	32,500
Miscellaneous supplies & materials	3,800	27,087	7,655	32,900	5,886		77,328	81,573	(4,245)
Total costs w/o Labor	9,360	368,687	245,486	34,190	18,186	6,149	682,058	971,280	(289,222)
Labor	557,838	5,076,260	1,890,941	281,570	698,081	32,583	8,537,273	7,935,122	602,151
Subtotal	567,198	5,444,947	2,136,427	315,760	716,267	38,732	9,219,331	8,906,402	312,929
Administrative & General		1,246,945	469,323	75,591	183,142	3,767	1,978,768	2,009,833	(31,065)
Occupancy Cost		384,641	67,236	11,478	29,024	-	492,379	257,638	234,741
Power Mgmt Administrative Liquidation	(567,198)	350,946	137,701	20,352	46,167	2,496	(9,536)	(10,050)	514
Liquidation to Plants						(44,995)	(44,995)	(38,677)	(6,318)
Annual Budget Cost	-	7,427,479	2,810,687	423,181	974,600	-	11,635,947	11,125,146	510,801
Less: Third Party Revenues									
Interest Income		18,443	10,529	2,430	5,979		37,381	37,381	-
Net Annual Budget Cost to Participants	\$ -	\$ 7,409,036	\$ 2,800,158	\$ 420,751	\$ 968,621	\$ -	\$ 11,598,566	\$ 11,087,765	\$ 510,801
FY 2021 Net Annual Budget Cost	-	6,747,312	2,923,813	412,049	947,737	-	10,347,374		
Increase/(Decrease)	\$ -	\$ 661,724	\$ (123,655)	\$ 8,702	\$ 20,884	\$ -	\$ 1,251,192		

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 2022 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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Power Management Administration						
Salaries & Benefits	\$520,208	\$560,695	\$547,810	\$267,707	\$557,838	\$10,028
Travel & Staff Development	20,690	8,251	20,690	323	560	(20,130)
Outside Services						
Other	6,000	0	5,000	0	5,000	0
Other						
Mobile Phone Services	600	776	600	279	600	0
Office Supplies	1,800	740	1,800	148	1,800	0
Books, Tapes and Subscriptions	200	2,790	200	1,440	1,000	800
Minor Equipment and Tools	400	0	400	174	400	0
	<u>\$549,898</u>	<u>\$573,252</u>	<u>\$576,500</u>	<u>\$270,071</u>	<u>\$567,198</u>	<u>(\$9,302)</u>
Liquidated Pwr Mgmt Admin	(549,898)	(573,252)	(576,500)	(270,071)	(567,198)	9,302
Net Annual Budget Cost to Participan	<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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Dispatch & Real-Time Resource Management	\$2,439,941	\$2,621,471	\$2,620,419	\$1,277,077	\$3,193,731	\$573,312
Schedule Coordination	2,619,988	2,441,803	2,804,320	1,228,165	2,971,670	167,350
System Control & Data Acquisition	821,444	852,480	1,127,847	442,488	1,014,876	(112,971)
WECC/NERC Compliance & Participation	201,044	148,681	213,169	68,009	247,202	34,033
Annual Budget Cost	6,082,417	6,064,435	6,765,755	3,015,739	7,427,479	661,724
Less: Third Party Revenue						
Interest Income (Operating Account)	18,443	16,729	18,443	7,619	18,443	0
Net Annual Budget Cost to Participants	\$6,063,974	\$6,047,706	\$6,747,312	\$3,008,120	\$7,409,036	\$661,724

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Dispatch & Real-Time Resource Management						
Salaries & Benefits						
Dispatch & Scheduling	\$1,600,764	\$1,676,307	\$1,715,370	\$779,381	\$1,856,128	\$140,758
Information Systems	186,266	279,289	182,424	189,504	471,072	288,648
Travel & Staff Development	25,000	18,135	20,000	12,310	16,000	(4,000)
Dues & Subscriptions	1,000	1,039	1,500	528	1,000	(500)
Office Furniture & Equipment	4,000	6,325	2,000	0	2,000	0
Office Supplies	2,700	2,590	5,100	2,836	5,200	100
Computer Spare Parts	8,400	4,562	5,000	683	5,000	0
Regulatory Fees & Permits	625	708	400	805	400	0
Pwr Mgmt Admin Liquidation	125,782	147,022	131,365	61,549	151,905	20,540
	1,954,537	2,135,977	2,063,159	1,047,596	2,508,705	445,546
Administrative & General	419,513	413,842	491,648	203,247	551,782	60,134
Occupancy Cost - Main HQ Building	65,891	71,652	65,612	26,234	133,244	67,632
	\$2,439,941	\$2,621,471	\$2,620,419	\$1,277,077	\$3,193,731	\$573,312
Schedule Coordination						
Salaries & Benefits						
Dispatch & Scheduling	\$1,550,711	\$1,531,894	\$1,698,334	\$772,857	\$1,768,063	\$69,729
Information Systems	379,515	304,884	341,001	137,478	403,094	62,093
Travel & Staff Development	18,000	9,264	13,000	0	0	(13,000)
Office Furniture & Equipment	1,500	0	1,000	0	1,000	0
Dues/Subscriptions	4,400	4,012	4,500	1,990	4,000	(500)
Special Equipment & Tools	500	0	0	0	0	0
Office Supplies, Maintenance & Miscs. Expen	500	102	3,100	1,389	3,100	0
Pwr Mgmt Admin Liquidation	134,474	136,762	140,147	65,654	140,460	313
	2,089,600	1,986,918	2,201,082	979,368	2,319,717	118,635
Administrative & General	457,477	387,586	531,448	220,085	522,107	(9,341)
Occupancy Cost - Main HQ Building	72,911	67,299	71,790	28,712	129,846	58,056
	\$2,619,988	\$2,441,803	\$2,804,320	\$1,228,165	\$2,971,670	\$167,350

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
System Control And Data Acquisition						
Salaries & Benefits						
Information Systems	\$361,927	\$398,488	\$396,921	\$210,071	\$422,815	\$25,894
Dispatch & Scheduling	7,932	7,955	8,224	2,283	8,079	(145)
Outside Services						
Contract/Program Consulting	0	0	50,000	0	0	(50,000)
Network Services	20,000	13,906	20,000	7,011	14,100	(5,900)
Metering Service	18,667	21,240	25,000	10,856	25,000	0
Travel & Staff Development	14,600	723	24,000	0	0	(24,000)
Data Com Lines	8,000	8,424	12,000	3,799	9,500	(2,500)
Software Licenses	50,000	18,117	200,000	43,914	44,000	(156,000)
Disaster Recovery Center	4,488	0	1,000	0	1,000	0
Supplies	1,000	634	1,000	0	1,000	0
Computer Hardware	15,000	10,205	15,000	7,284	15,000	0
Communication Services - Internet	13,000	7,963	13,000	3,318	13,000	0
Communication Services - Intranet	120,000	123,762	125,000	55,755	160,000	35,000
Property Insurance	2,408	2,376	2,504	0	3,487	983
Special Equipment & Tools	1,000	0	0	0	0	0
Emergency Gen. Fuel/Maint.	1,630	2,808	913	0	900	(13)
Computer Hardware (>\$5K)	0	49,086	0	0	40,000	40,000
Pwr Mgmt Admin Liquidation	43,995	49,207	60,832	28,492	48,848	(11,984)
	683,647	714,894	955,394	372,783	806,729	(148,665)
Administrative & General	121,344	118,835	157,935	63,900	140,490	(17,445)
Occupancy Cost - Main HQ Building	16,453	18,751	14,518	5,805	67,657	53,139
	\$821,444	\$852,480	\$1,127,847	\$442,488	\$1,014,876	(\$112,971)
WECC/NERC Compliance & Participation						
Salaries & Benefits	\$136,351	\$108,911	\$144,242	\$43,259	\$147,009	\$2,767
WECC Membership Dues/Security	900	0	0	0	0	0
Travel	8,100	6,624	8,000	0	0	(8,000)
NERC/WECC Assessments	9,000	1,000	9,000	2,812	4,000	(5,000)
Pwr Mgmt Admin Liquidation	10,616	8,614	10,965	5,131	9,733	(1,232)
	164,967	125,149	172,207	51,202	160,742	(11,465)
Administrative & General	31,550	20,481	36,547	15,040	32,566	(3,981)
Occupancy Cost - Main HQ Building	4,527	3,051	4,415	1,767	53,894	49,479
	\$201,044	\$148,681	\$213,169	\$68,009	\$247,202	\$34,033

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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Forecasting	\$631,611	\$530,789	\$682,573	\$280,306	\$603,545	(\$79,028)
Resource Planning, Optimization Risk Analysis & Mgmt	566,673	551,426	656,832	318,910	612,883	(43,949)
Power & Fuel Transaction	145,149	151,789	153,402	74,780	152,169	(1,233)
Pre-Scheduling	845,737	786,889	872,298	408,988	861,509	(10,789)
Power Pool Operations & Settlement Standards	563,668	435,754	377,366	161,345	390,770	13,404
Facilities Agreement Administration	181,305	142,306	191,871	70,122	189,811	(2,060)
Annual Budget Cost	2,934,143	2,598,953	2,934,342	1,314,451	2,810,687	(123,655)
Less: Third Party Revenue						
Interest Income	10,529	14,157	10,529	5,508	10,529	0
Net Annual Budget Cost to Participants	\$2,923,614	\$2,584,796	\$2,923,813	\$1,308,943	\$2,800,158	(\$123,655)

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Forecasting						
Salaries & Benefits						
Power Management	\$371,225	\$329,767	\$391,483	\$182,072	\$392,498	\$1,015
Information Systems	0	0	19,615	0	0	(19,615)
Travel & Staff Development	30,070	3,166	26,123	1,212	8,192	(17,931)
Professional Services	5,000	12,701	0	6,558	5,000	5,000
Software	26,000	34,801	27,000	0	17,500	(9,500)
Books, Tapes and Subscription	2,300	0	2,300	0	2,300	0
Tactical Market Info - Platts, NGI	50,300	30,188	50,300	20,294	33,300	(17,000)
Pwr Mgmt Admin Liquidation	33,351	30,353	35,145	16,474	29,571	(5,574)
	518,246	440,976	551,966	226,610	488,361	(63,605)
Administrative & General	99,137	77,497	116,569	48,082	100,813	(15,756)
Occupancy Cost - Main HQ Building	14,228	12,316	14,038	5,614	14,371	333
	<u>\$631,611</u>	<u>\$530,789</u>	<u>\$682,573</u>	<u>\$280,306</u>	<u>\$603,545</u>	<u>(\$79,028)</u>

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Resource Planning, Optimization, Risk Analysis & Mgmt						
Salaries & Benefits						
Power Management	\$349,416	\$349,816	\$366,426	\$195,429	\$366,690	\$264
Information Systems	0	0	39,231	0	0	(39,231)
Travel & Staff Development	10,989	1,162	12,373	645	2,964	(9,409)
Professional Services	32,884	24,250	20,000	0	20,000	0
Software	37,750	46,230	44,000	28,174	43,500	(500)
Tactical Market Information / Data	1,000	0	13,200	21,593	36,675	23,475
Mobile Phone Service	2,400	2,660	2,400	1,081	2,640	240
Office Supplies	50	858	50	0	55	5
Copy, Printing, Binding	100	0	100	0	100	0
Books, Tapes and Subscription	125	0	125	5,046	125	0
Equip Repair & Maintenance	390	0	390	0	390	0
Pwr Mgmt Admin Liquidation	29,927	31,414	33,885	15,880	30,496	(3,389)
	465,031	456,390	532,180	267,848	503,635	(28,545)
Administrative & General	88,892	81,817	111,339	45,742	96,370	(14,969)
Occupancy Cost - Main HQ Building	12,750	13,219	13,313	5,320	12,878	(435)
	<u>\$566,673</u>	<u>\$551,426</u>	<u>\$656,832</u>	<u>\$318,910</u>	<u>\$612,883</u>	<u>(\$43,949)</u>
Power & Fuel Transactions						
Salaries & Benefits						
Power Management	\$108,931	\$114,927	\$113,730	\$58,135	\$114,027	\$297
Pwr Mgmt Admin Liquidation	7,492	8,495	7,734	3,619	7,349	(385)
	116,423	123,422	121,464	61,754	121,376	(88)
Administrative & General	24,846	24,187	28,250	11,553	26,780	(1,470)
Occupancy Cost - Main HQ Building	3,880	4,180	3,688	1,473	4,013	325
	<u>\$145,149</u>	<u>\$151,789</u>	<u>\$153,402</u>	<u>\$74,780</u>	<u>\$152,169</u>	<u>(\$1,233)</u>
Pre-Scheduling						
Salaries & Benefits						
Power Management	\$536,928	\$540,200	\$562,525	\$288,175	\$565,169	\$2,644
Information Systems	32,182	0	18,303	0	17,972	(331)
Travel & Staff Development	6,840	0	8,000	968	1,000	(7,000)
Brokerage Fees	46,800	51,660	48,000	21,675	48,000	0
Software	16,800	5,355	15,000	5,441	19,500	4,500
Mobile Phone Service	1,800	2,085	2,340	795	1,980	(360)
Office Supplies	50	1,125	65	0	65	0
Pwr Mgmt Admin Liquidation	44,116	44,383	44,489	20,849	42,133	(2,356)
	685,516	644,808	698,722	337,903	695,819	(2,903)
Administrative & General	139,235	121,631	154,260	63,357	144,861	(9,399)
Occupancy Cost - Main HQ Bldg	20,986	20,450	19,316	7,728	20,829	1,513
	<u>\$845,737</u>	<u>\$786,889</u>	<u>\$872,298</u>	<u>\$408,988</u>	<u>\$861,509</u>	<u>(\$10,789)</u>

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Power Pool Operations & Settlement Standards						
Salaries & Benefits						
Power Management	\$156,575	\$166,243	\$165,025	\$92,130	\$164,609	(\$416)
Information Systems	263,813	166,544	111,814	27,989	127,885	16,071
Mobile Phone Services	2,185	2,220	5,000	846	2,200	(2,800)
Pwr Mgmt Admin Liquidation	29,065	24,763	19,166	8,966	18,994	(172)
	451,638	359,770	301,005	129,931	313,688	12,683
Administrative & General	96,760	65,179	67,659	27,931	66,976	(683)
Occupancy Cost - Main HQ Bldg	15,270	10,805	8,702	3,483	10,106	1,404
	<u>\$563,668</u>	<u>\$435,754</u>	<u>\$377,366</u>	<u>\$161,345</u>	<u>\$390,770</u>	<u>\$13,404</u>
Facilities Agreement Administration						
Salaries & Benefits						
Power Management	\$135,861	\$108,897	\$141,941	\$48,889	\$142,091	\$150
Pwr Mgmt Admin Liquidation	9,345	8,050	9,652	4,510	9,158	(494)
	145,206	116,947	151,593	53,399	151,249	(344)
Administrative & General	31,202	21,743	35,596	14,852	33,523	(2,073)
Occupancy Cost - Main HQ Bldg	4,897	3,616	4,682	1,871	5,039	357
	<u>\$181,305</u>	<u>\$142,306</u>	<u>\$191,871</u>	<u>\$70,122</u>	<u>\$189,811</u>	<u>(\$2,060)</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

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

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Industry Restructuring & Regulatory Affairs						
Salaries & Benefits	\$261,252	\$247,821	\$270,555	\$125,736	\$281,570	\$11,015
Travel & Staff Development	5,000	2,683	5,000	1,290	1,290	(3,710)
Legal Services	11,500	0	5,000	0	0	(5,000)
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	20,699	31,000	23,415	31,000	0
Pwr Mgmt Admin Liquidation	21,367	20,047	21,316	9,993	20,352	(964)
	332,019	291,250	334,771	160,434	336,112	1,341
Administrative & General	71,281	59,263	79,771	33,089	75,591	(4,180)
Occupancy Cost - Main HQ Building	11,179	10,508	10,610	4,245	11,478	868
Annual Budget Cost	414,479	361,021	425,152	197,768	423,181	(1,971)
Less: Third Party Revenue						
Interest Income	2,430	2,792	2,430	982	2,430	0
Net Annual Budget Cost to Participants	\$412,049	\$358,229	\$422,722	\$196,786	\$420,751	(\$1,971)

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
Contract Administration
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Contract Maint. Negotiation and Administration and Litigation Support	\$678,070	\$741,175	\$707,707	\$388,661	\$680,700	(\$27,007)
TANC Representation & Advocacy	29,604	23,439	30,727	12,795	31,304	577
Western Representation & Advocacy	136,198	111,392	145,777	34,662	146,286	509
Pooling Agreement Coordination & Administration	109,844	69,115	115,686	41,489	116,310	624
Annual Budget Cost	953,716	945,121	999,897	477,607	974,600	(25,297)
Less: Third Party Revenue						
Interest Income	5,979	5,953	5,979	1,696	5,979	0
Net Annual Budget Cost to Participants	\$947,737	\$939,168	\$993,918	\$475,911	\$968,621	(25,297)

Northern California Power Agency
Contract Administration
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Contract Maint. Negotiation and Administration and Litigation Support						
Salaries & Benefits	\$462,299	\$532,120	\$478,270	\$306,392	\$496,742	\$18,472
Travel & Staff Development	5,698	3,369	5,698	0	0	(5,698)
Legal Services	28,000	0	28,000	0	0	(28,000)
Mobile Phone Services	1,200	579	1,200	286	1,200	0
Office Supplies	1,000	0	1,000	0	1,000	0
Copy, Printing and Binding	200	0	200	0	200	0
Books, Tapes and Subscriptions	3,000	1,823	1,686	1,711	1,720	34
Equipment Repair and Maintenance	1,300	0	1,300	0	1,266	(34)
Minor Equipment and Tools	200	0	200	0	200	0
Pwr Mgmt Admin Liquidation	34,589	39,760	35,195	16,474	32,377	(2,818)
	<u>537,486</u>	<u>577,651</u>	<u>552,749</u>	<u>324,863</u>	<u>534,705</u>	<u>(18,044)</u>
Administrative & General	120,997	136,973	136,359	56,364	126,211	(10,148)
Occupancy Cost - Main HQ Building	19,587	26,551	18,599	7,434	19,784	1,185
	<u>\$678,070</u>	<u>\$741,175</u>	<u>\$707,707</u>	<u>\$388,661</u>	<u>\$680,700</u>	<u>(\$27,007)</u>
TANC Representation & Advocacy						
Salaries & Benefits						
Power Management	\$20,951	\$17,624	\$21,571	\$9,329	\$22,507	\$936
Travel & Staff Development	623	0	623	0	0	(623)
Copy, Printing and Binding	50	0	50	0	50	0
Books, Tapes and Subscriptions	50	0	50	0	50	0
Pwr Mgmt Admin Liquidation	1,491	1,303	1,516	702	1,457	(59)
	<u>23,165</u>	<u>18,927</u>	<u>23,810</u>	<u>10,031</u>	<u>24,064</u>	<u>254</u>
Administrative & General	5,515	3,834	6,070	2,417	6,213	143
Occupancy Cost - Main HQ Building	924	678	847	347	1,027	180
	<u>\$29,604</u>	<u>\$23,439</u>	<u>\$30,727</u>	<u>\$12,795</u>	<u>\$31,304</u>	<u>\$577</u>

Northern California Power Agency
Contract Administration
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Western Representation & Advocacy						
Salaries & Benefits	\$84,319	\$62,824	\$86,762	\$17,043	\$94,096	\$7,334
Travel & Staff Development	4,000	0	4,000	0	0	(4,000)
Legal Services	2,500	0	5,000	0	500	(4,500)
Other Professional Services	8,700	22,520	9,300	0	11,800	2,500
Mobile Phone Services	0	776	0	279	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	6,859	6,366	7,158	3,349	6,871	(287)
	<u>106,578</u>	<u>92,486</u>	<u>112,420</u>	<u>20,671</u>	<u>113,467</u>	<u>1,047</u>
Administrative & General	25,370	16,307	29,227	12,345	28,246	(981)
Occupancy Cost - Main HQ Building	4,250	2,599	4,130	1,646	4,573	443
	<u>\$136,198</u>	<u>\$111,392</u>	<u>\$145,777</u>	<u>\$34,662</u>	<u>\$146,286</u>	<u>\$509</u>
Pooling Agreement Coordination & Administration						
Salaries & Benefits	\$77,683	\$52,693	\$80,682	\$27,564	\$84,736	\$4,054
Travel & Staff Development	2,400	0	2,400	0	0	(2,400)
Pwr Mgmt Admin Liquidation	5,508	3,895	5,650	2,647	5,462	(188)
	<u>85,591</u>	<u>56,588</u>	<u>88,732</u>	<u>30,211</u>	<u>90,198</u>	<u>1,466</u>
Administrative & General	20,742	10,719	23,576	9,926	22,472	(1,104)
Occupancy Cost - Main HQ Building	3,511	1,808	3,378	1,352	3,640	262
	<u>\$109,844</u>	<u>\$69,115</u>	<u>\$115,686</u>	<u>\$41,489</u>	<u>\$116,310</u>	<u>\$624</u>

Gas Purchase Program (GPP)

FY 2022

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, BART, 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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Increase/ (Decrease)
Gas Purchase Program						
Salaries & Benefits	\$58,219	\$51,604	\$60,725	\$22,446	\$60,827	\$102
Other						
Other Services	0	9932	0	0	0	0
Allocated Power Management Admin	4,004	3,815	4,129	1,945	3,921	(208)
	62,223	65,351	64,854	24,391	64,748	(106)
Administrative & General	13,124	10,240	14,935	6,227	13,943	(992)
Occupancy Cost - Main HQ Building	2,039	1,723	1,949	780	2,088	139
Annual Budget Cost	77,386	77,314	81,738	31,398	80,779	(959)
Interest Revenue	361	289	361	108	361	0
Net Annual Budget Cost to Participants	\$77,025	\$77,025	\$81,377	\$31,290	\$80,418	(\$959)

Market Purchase Program (MPP)

FY 2022

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, Palo Alto, Port of Oakland, 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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Market Purchase Project						
Salaries & Benefits	\$83,325	\$71,800	\$86,823	\$29,758	\$87,113	\$290
Other						
Office Supplies	25	0	25	0	0	(25)
Copy, Printing & Binding	100	0	100	0	0	(100)
Books, Tapes & Subscriptions	125	0	125	0	0	(125)
Pwr Mgmt Admin Liquidation	5,748	5,307	5,921	2,782	5,615	(306)
	89,323	77,107	92,994	32,540	92,728	(266)
Administrative & General	18,984	15,066	21,449	8,722	20,148	(1,301)
Occupancy Cost - Main HQ Building	2,963	2,627	2,796	1,109	3,021	225
Annual Budget Cost	111,270	94,800	117,239	42,371	115,897	(1,342)
Less: Third Party Revenue						
Interest Income	5,157	1,448	5,157	221	5,157	0
Net Annual Budget Cost to Participants	\$106,113	\$93,352	\$112,082	\$42,150	\$110,740	(\$1,342)

Fuel Acquisition & Management

FY 2022

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 3rd 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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Fuel Acquisition Cost (CT1 & CT2)						
Salaries & Benefits						
Pwr Accts Admin	\$31,536	\$44,039	\$32,863	\$20,689	\$32,583	(\$280)
Other:						
Copy, Printing & Binding	0	0	0	0	0	0
NG Subscriptions	0	5,970	0	0	6,149	6,149
Pwr Mgmt Admin Liquidation	2,169	3,697	2,235	1,053	2,496	261
	33,705	53,706	35,098	21,742	41,228	6,130
Administrative & General	3,312	10,486	3,579	1,190	3,767	188
Occupancy	92	1,808	0	0	0	0
	\$37,109	\$66,000	\$38,677	\$22,932	\$44,995	\$6,318
Liquidation of Fuel Acquisition to CT1 & CT2	(\$37,109)	(\$66,000)	(\$38,677)	(\$22,932)	(\$44,995)	(\$6,318)
Net Annual Budget Cost to Participants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
ROC, IROC Meetings & Activities	\$51,651	\$40,827	\$52,118	\$19,372	\$46,473	(\$5,645)
Counter-party Credit Review & Analysis	160,093	108,404	177,727	56,623	152,384	(25,343)
Annual Budget Cost	211,744	149,231	229,845	75,995	198,857	(30,988)
Less: Third Party Revenue						
Interest Income	4,708	7,217	4,708	2,661	4,708	0
Net Annual Budget Cost to Participants	\$207,036	\$142,014	\$225,137	\$73,334	\$194,149	(\$30,988)

Northern California Power Agency
Risk Management
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
ROC, IROC Meetings & Activities						
Salaries & Benefits						
Risk Management	\$61,345	\$66,141	\$63,602	\$30,558	\$63,466	(\$136)
Power Accounts Administration	0	0	0	0	0	0
Administrative Services	10,536	0	10,920	0	10,914	(6)
	71,881	66,141	74,522	30,558	74,380	(142)
Travel & Staff Development	8,000	554	4,500	0	0	(4,500)
Legal Services	5,000	0	5,000	0	0	(5,000)
Commercial Compliance Training	0	63	0	0	0	0
	84,881	66,758	84,022	30,558	74,380	(9,642)
Administrative & General	16,082	12,642	17,944	7,285	16,058	(1,886)
Occupancy Cost - Main HQ Building	2,340	2,253	2,270	901	2,508	238
	103,303	81,653	104,236	38,744	92,946	(11,290)
Allocated ROC, IROC Meetings & Activities to A&G	(51,652)	(40,827)	(52,118)	(19,372)	(46,473)	5,645
	<u>\$51,651</u>	<u>\$40,827</u>	<u>\$52,118</u>	<u>\$19,372</u>	<u>\$46,473</u>	<u>(\$5,645)</u>
Counter-party Credit Review & Analysis						
Salaries & Benefits						
Energy Risk Management	\$61,345	\$67,867	\$63,602	\$33,452	\$63,466	(\$136)
Information Systems	18,633	10,054	24,522	11,162	46,800	22,278
	79,978	77,921	88,124	44,614	110,266	22,142
Risk Management Enterprise Application	55,000	11,680	60,000	0	12,000	(48,000)
	134,978	89,601	148,124	44,614	122,266	(25,858)
Administrative & General	22,307	16,076	26,796	10,883	26,105	(691)
Occupancy Cost - Main HQ Building	2,808	2,727	2,807	1,126	4,013	1,206
	<u>\$160,093</u>	<u>\$108,404</u>	<u>\$177,727</u>	<u>\$56,623</u>	<u>\$152,384</u>	<u>(\$25,343)</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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Deal Control Validation & Monitoring	\$397,783	\$353,047	\$349,266	\$139,125	\$427,029	\$77,763
ISO Data Validation & Monitoring	582,133	427,882	574,380	196,722	550,253	(24,127)
Annual Budget Cost	979,916	780,929	923,646	335,847	977,282	53,636
Less: Third Party Revenue						
Interest Income	5,156	7,353	5,156	2,277	5,156	0
Net Annual Budget Cost to Participants	\$974,760	\$773,576	\$918,490	\$333,570	\$972,126	\$53,636

Northern California Power Agency
Settlements
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Deal Control Validation & Monitoring						
Salaries & Benefits						
Information Systems	\$113,587	\$121,513	\$82,061	\$28,080	\$112,837	\$30,776
Power Accounts Administration	193,209	154,891	178,317	74,261	214,956	36,639
	306,796	276,404	260,378	102,341	327,793	67,415
Administrative & General	77,414	63,838	76,821	31,967	84,490	7,669
Occupancy Cost - Main HQ Building	13,573	12,805	12,067	4,817	14,746	2,679
	<u>\$397,783</u>	<u>\$353,047</u>	<u>\$349,266</u>	<u>\$139,125</u>	<u>\$427,029</u>	<u>\$77,763</u>
ISO Data Validation & Monitoring						
Salaries & Benefits						
Information Systems	\$55,717	\$0	\$41,813	\$0	\$5,991	(\$35,822)
Power Accounts Administration	372,583	327,385	374,088	128,656	395,266	21,178
	428,300	327,385	415,901	128,656	401,257	(14,644)
Travel & Staff Development	6,695	0	0	0	0	0
Software Licenses	0	3,371	3,400	3,421	3,450	50
	434,995	330,756	419,301	132,077	404,707	(14,594)
Administrative & General	123,923	80,528	133,270	55,928	122,373	(10,897)
Occupancy Cost - Main HQ Building	23,215	16,598	21,809	8,717	23,173	1,364
	<u>\$582,133</u>	<u>\$427,882</u>	<u>\$574,380</u>	<u>\$196,722</u>	<u>\$550,253</u>	<u>(\$24,127)</u>

Northern California Power Agency
Integrated System Support
Comparative Annual Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Integrated System Support						
Outside Services						
Custom Programming	\$0	\$21,600	\$0	\$0	\$0	\$0
Hardware Licenses	30,000	0	0	25,000	30,000	30,000
Software Licenses	67,500	27,382	125,000	43,507	125,000	0
Other						
Data Supplies	5,000	2,577	0	0	0	0
Computer Hardware	100,000	35,359	25,000	11,392	35,000	10,000
Hardware Contracts	10,000	5,790	80,000	10,000	80,000	0
Communication Services - Intranet	11,000	9,750	11,000	4,063	11,000	0
Records Retention Software Solution	0	0	0	0	0	0
Emergency Generator Fuel/Maint.	0	0	304	0	150	(154)
Regulatory Fees & Permits	0	0	133	0	300	167
	223,500	102,458	241,437	93,962	281,450	40,013
Administrative & General	19,661	8,268	24,618	9,584	26,509	1,891
Annual Budget Cost	243,161	110,726	266,055	103,546	307,959	41,904
Less: Third Party Revenue						
Interest Income	3,690	3,968	3,690	1,336	3,690	0
Net Annual Budget Cost to Participants	\$239,471	\$106,758	\$262,365	\$102,210	\$304,269	\$41,904

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 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December 31	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Dues:						
APPA	\$314,461	\$323,345	\$333,045	\$320,454	\$333,045	\$0
SEPA	19,000	19,000	19,000	19,000	19,000	0
DEED	24,289	24,467	24,661	0	24,661	0
CEE	10,000	11,563	10,000	11,562	10,000	0
Alliance to Save Energy Dues	0	0	2,500	0	2,500	0
	367,750	378,375	389,206	351,016	389,206	0
Subscriptions:						
Tactical Mkt Info - Platts	10,500	7,512	10,500	10,602	9,750	(750)
Tactical Mkt Info - NGI	7,500	9,164	7,500	7,856	9,375	1,875
	18,000	16,676	18,000	18,458	19,125	1,125
Transmission Services:						
TANC - SOT	89,000	88,380	89,000	98,446	210,000	121,000
Bay Area Transmission (BAMx)	657,500	534,263	657,500	0	657,500	0
BART Transmission Consulting	180,000	113,224	180,000	11,496	180,000	0
60 Kv Facilities Charges (Biggs)	4,700	4,663	4,700	2,331	4,700	0
	931,200	740,530	931,200	112,273	1,052,200	121,000
Distribution:						
Meter Maintenance General - TriMark	142,000	71,590	142,000	39,025	142,000	0
Meter Maint/Repair	0	0	0	5,140	0	0
	142,000	71,590	142,000	44,165	142,000	0
WREGIS:						
Certificate Transfer Fees	5,000	6,066	5,000	2,140	5,000	0
Certificate Transfer Fees - WAPA	5,000	3,494	5,000	919	5,000	0
	10,000	9,560	10,000	3,059	10,000	0
AB32 CARB Implementation						
AB32 CARB Implementation Costs	0	3,409	0	12,299	0	0
Emissions Verification Services	0	540	0	0	0	0
	0	3,949	0	12,299	0	0
Member Services Projects:						
Energy Efficiency Reporting Tool	41,497	97,298	70,235	64,411	70,235	0
Technical Reference Manual	0	0	0	0	35,000	35,000
Energy Efficiency Target	0	0	30,000	0	0	(30,000)
LCFS Auction Support Services	50,000	0	0	0	0	0
SEPA Energy Storage Analysis	0	0	0	37,500	0	0
	91,497	97,298	100,235	101,911	105,235	5,000
Annual Budget Cost	\$1,560,447	\$1,317,978	\$1,590,641	\$643,181	\$1,717,765	\$127,124

Support Services

Support Services, available to NCPA participants as well as to agencies outside NCPA, include Training Services, Vendor Services, and Other Support Services.

Training Services with qualified instructors enhance the ability of agencies to hire and maintain knowledgeable staff through a variety of technical and administrative courses specific to the power industry.

Vendor Services provide for sharing contracted services of vendors that deliver similar services across agencies providing savings to recipient agencies that would otherwise recognize the cost of negotiating and securing a contract.

Other Support Services include, but are not limited to contractual 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 Support Services programs are passed through to recipients of the services.

NORTHERN CALIFORNIA POWER AGENCY
Support Services
Comparative Draft Budget Report

	FY 2020 Budget	FY 2020 Actual	FY 2021 Budget	FY 2021 Actual Through December, 2020	Proposed FY 2022 Budget	Budget Increase/ (Decrease)
Support Services						
Salaries & Benefits	\$43,685	\$60,597	\$42,235	\$28,551	\$47,000	\$4,765
Training Services	0	62,436	0	31,283	0	0
Vendor Services	0	1,258,892	0	795,416	0	0
Vendor Shared Services - SCPPA	0	361,493	0	192,362	0	0
Other Support Services	0	19,128	0	0	0	0
Annual Budget Cost	43,685	1,762,546	42,235	1,047,612	47,000	4,765

Northern California Power Agency
Grand Total Full-Time Employee Staffing by Business Unit
FY 2021-2022 Budget

BUSINESS UNITS

GENERATION SERVICES

POWER MANAGEMENT

LEGISLATIVE & REGULATORY

ADMINISTRATIVE & GENERAL

GRAND TOTAL

FY 2020-2021 Budget			FY 2021-2022 Budget	
On Board (A)	Open (B)	Total	Change (C)	Total
85.00	6.00	91.00	1.00	92.00
25.00	1.00	26.00	-	26.00
6.75	-	6.75	-	6.75
39.25	6.00	45.25	(1.00)	44.25
156.00	13.00	169.00	-	169.00

Note = A: Number of full-time employees planned as of 7/1/20. 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 2021-2022 Budget

Business Unit

Casual Employees Equivalent

Generation Services

Administrative & General

Total

FY 2020-2021 Budget		
On Board	Open	Total
1.23		1.23
1.00		1.00
2.23	-	2.23

FY 2021-2022 Budget	
Change	Total
	1.23
	1.00
-	2.23

NORTHERN CALIFORNIA POWER AGENCY

Summary of Position Changes

FY 2021-2022

New Changes:

Delete	-1.0	Geothermal Facilities	Supervisor II, Plant
Add	2.0	Geothermal Operations	Operator Technician III & IV
Delete	-1.0	Information Systems	Administrative Asst/ Office Administrator II
	<u>0.00</u>	Total	
Reclass	0.00	Information Services	Help Desk Technician to Computer Technology Analyst I
Reclass	0.00	Geothermal Maintenance	Mechanic Operator V to Technician Operator III-V (Org 634)

NORTHERN CALIFORNIA POWER AGENCY
ADMINISTRATIVE GENERAL WAGE STRUCTURE
Projected December 18, 2021

GRADE	JOB CLASSIFICATION/JOB FAMILY	MINIMUM		CONTROL POINT		CTRL PT PLUS 15%	
		ANNUAL	HOURLY	ANNUAL	HOURLY	ANNUAL	HOURLY
15	¹ ACCOUNTANT/ANALYST I	72,613	34.91	90,771	43.64	104,374	50.18
17	¹ ACCOUNTANT/ANALYST II	83,907	40.34	104,894	50.43	120,619	57.99
19	¹ ACCOUNTANT/ANALYST III	96,970	46.62	121,222	58.28	139,402	67.02
9	¹ ACCOUNTING CLERK I	47,050	22.62	58,822	28.28	67,642	32.52
11	¹ ACCOUNTING CLERK II	54,371	26.14	67,974	32.68	78,166	37.58
13	¹ ACCOUNTING CLERK III	62,837	30.21	78,541	37.76	90,334	43.43
9	¹ ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR I	47,050	22.62	58,822	28.28	67,642	32.52
11	¹ ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR II	54,371	26.14	67,974	32.68	78,166	37.58
13	¹ ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR III	62,837	30.21	78,541	37.76	90,334	43.43
30	¹ AGM I/SENIOR DIRECTOR (E.g. Business Development)	214,864	103.30	268,570	129.12	308,859	148.49
31	¹ AGM II (E.g. Power Mgmt, Generation, Leg & Reg, CFO/Admin)	230,984	111.05	288,725	138.81	332,030	159.63
32	¹ AGM III	248,290	119.37	310,378	149.22	356,928	171.60
23	¹ ASSISTANT CONTROLLER	129,501	62.26	161,886	77.83	186,160	89.50
25	¹ ASSISTANT MANAGER: INFORMATION SERVICES	149,656	71.95	187,075	89.94	215,134	103.43
6E	¹ ASSISTANT, STUDENT I	28,600	13.75	35,755	17.19	41,122	19.77
6F	¹ ASSISTANT, STUDENT II	35,526	17.08	44,408	21.35	51,064	24.55
6G	¹ ASSISTANT, STUDENT III	44,158	21.23	55,203	26.54	63,482	30.52
6H	¹ ASSISTANT, STUDENT IV	51,002	24.52	63,752	30.65	73,320	35.25
14	¹ COMPUTER TECHNOLOGY ANALYST	67,558	32.48	84,427	40.59	97,094	46.68
17	¹ COMPUTER TECHNOLOGY ANALYST I	83,907	40.34	104,894	50.43	120,619	57.99
19	¹ COMPUTER TECHNOLOGY ANALYST II	96,970	46.62	121,222	58.28	139,402	67.02
21	¹ COMPUTER TECHNOLOGY ANALYST III	112,070	53.88	140,088	67.35	161,096	77.45
23	¹ COMPUTER TECHNOLOGY ANALYST IV	129,501	62.26	161,886	77.83	186,160	89.50
20	¹ ENERGY RESOURCE ANALYST III	104,250	50.12	130,312	62.65	149,864	72.05
16	¹ ENERGY RESOURCE ANALYST I	78,062	37.53	97,573	46.91	112,216	53.95
18	¹ ENERGY RESOURCE ANALYST II	90,210	43.37	112,757	54.21	129,667	62.34
23	¹ ENERGY RESOURCE ANALYST IV	129,501	62.26	161,886	77.83	186,160	89.50
16	¹ ENGINEER I	78,062	37.53	97,573	46.91	112,216	53.95
18	¹ ENGINEER II	90,210	43.37	112,757	54.21	129,667	62.34
20	¹ ENGINEER III	104,250	50.12	130,312	62.65	149,864	72.05
23	¹ ENGINEER IV	129,501	62.26	161,886	77.83	186,160	89.50
24	¹ ENGINEER V: SUPERVISING /PLANT	139,214	66.93	174,034	83.67	200,138	96.22
20	¹ ENVIRONMENTAL, HEALTH & SAFETY SPECIALIST	104,250	50.12	130,312	62.65	149,864	72.05
16	¹ EXECUTIVE ASSISTANT	78,062	37.53	97,573	46.91	112,216	53.95
32	¹ GENERAL COUNSEL	248,290	119.37	310,378	149.22	356,928	171.60
36	¹ GENERAL MANAGER	331,594	159.42	414,502	199.28	476,674	229.17
16	¹ GEOLOGIST I	78,062	37.53	97,573	46.91	112,216	53.95
18	¹ GEOLOGIST II	90,210	43.37	112,757	54.21	129,667	62.34
20	¹ GEOLOGIST III	104,250	50.12	130,312	62.65	149,864	72.05
23	¹ GEOLOGIST IV	129,501	62.26	161,886	77.83	186,160	89.50
24	¹ GEOLOGIST V	139,214	66.93	174,034	83.67	200,138	96.22
16	¹ GOVERNMENT RELATIONS REPRESENTATIVE I	78,062	37.53	97,573	46.91	112,216	53.95
18	¹ GOVERNMENT RELATIONS REPRESENTATIVE II	90,210	43.37	112,757	54.21	129,667	62.34
20	¹ GOVERNMENT RELATIONS REPRESENTATIVE III	104,250	50.12	130,312	62.65	149,864	72.05
22	¹ GOVERNMENT RELATIONS REPRESENTATIVE IV	120,474	57.92	150,592	72.40	173,181	83.26
16	¹ HUMAN RESOURCES ANALYST I	78,062	37.53	97,573	46.91	112,216	53.95
18	¹ HUMAN RESOURCES ANALYST II	90,210	43.37	112,757	54.21	129,667	62.34
20	¹ HUMAN RESOURCES ANALYST III	104,250	50.12	130,312	62.65	149,864	72.05
13	¹ HUMAN RESOURCES ASSISTANT	62,837	30.21	78,541	37.76	90,334	43.43
27	¹ HUMAN RESOURCES DIRECTOR	172,952	83.15	216,195	103.94	248,622	119.53
25	¹ HUMAN RESOURCES MANAGER	149,656	71.95	187,075	89.94	215,134	103.43
13	¹ LEGISLATIVE PROGRAM ASSISTANT	62,837	30.21	78,541	37.76	90,334	43.43
27	¹ MANAGER, INFORMATION SERVICES	172,952	83.15	216,195	103.94	248,622	119.53
27	¹ MANAGER, INFORMATION SERVICES & POWER SETTLEMENTS	172,952	83.15	216,195	103.94	248,622	119.53
29	¹ MANAGER, PLANT	199,867	96.09	249,829	120.11	287,310	138.13

NORTHERN CALIFORNIA POWER AGENCY
ADMINISTRATIVE GENERAL WAGE STRUCTURE
Projected December 18, 2021

GRADE	JOB CLASSIFICATION/JOB FAMILY	MINIMUM		CONTROL POINT		CTRL PT PLUS 15%	
		ANNUAL	HOURLY	ANNUAL	HOURLY	ANNUAL	HOURLY
25 ¹	MANAGER, REGULATORY PROGRAM	149,656	71.95	187,075	89.94	215,134	103.43
26 ¹	MANAGER, RELIABILITY COMPLIANCE	160,888	77.35	201,115	96.69	231,275	111.19
17 ¹	MATERIALS/WAREHOUSE COORDINATOR I	83,907	40.34	104,894	50.43	120,619	57.99
19 ¹	MATERIALS/WAREHOUSE COORDINATOR II	96,970	46.62	121,222	58.28	139,402	67.02
7 ¹	OFFICE ASSISTANT I	40,706	19.57	50,898	24.47	58,531	28.14
9 ¹	OFFICE ASSISTANT II	47,050	22.62	58,822	28.28	67,642	32.52
16 ¹	POWER SETTLEMENTS ANALYST I	78,062	37.53	97,573	46.91	112,216	53.95
18 ¹	POWER SETTLEMENTS ANALYST II	90,210	43.37	112,757	54.21	129,667	62.34
20 ¹	POWER SETTLEMENTS ANALYST III	104,250	50.12	130,312	62.65	149,864	72.05
25 ¹	POWER SETTLEMENTS MANAGER	149,656	71.95	187,075	89.94	215,134	103.43
23 ¹	SCHEDULER/PLANNER, POWER	129,501	62.26	161,886	77.83	186,160	89.50
23 ¹	SENIOR COMPUTER TECH. ANALYST, POWER (E.g. BILLING)	129,501	62.26	161,886	77.83	186,160	89.50
18 ¹	SHAREPOINT ADMINISTRATOR	90,210	43.37	112,757	54.21	129,667	62.34
4 ¹	STUDENT HELPER (OFFICE/PLANT)	32,781	15.76	40,976	19.70	47,112	22.65
27 ¹	SUPERINTENDENT, GENERATION RESOURCES	172,952	83.15	216,195	103.94	248,622	119.53
22 ¹	SUPERVISOR I, POWER SETTLEMENTS	120,474	57.92	150,592	72.40	173,181	83.26
20 ¹	SUPERVISOR I, (CHEMICAL, GENERAL SERVICES)	104,250	50.12	130,312	62.65	149,864	72.05
24 ¹	SUPERVISOR II, (PLANT, ENERGY RISK, ENGINEERING)	139,214	66.93	174,034	83.67	200,138	96.22
27 ¹	SUPERVISOR III, (POWER MGT., COORD. OP, REG/ENV COMP, ENGR)	172,952	83.15	216,195	103.94	248,622	119.53
27 ¹	TREASURER-CONTROLLER	172,952	83.15	216,195	103.94	248,622	119.53
HEA ^{2,4}	HYDRO TECH APPRENTICE	73,029	35.11	99,819	47.99		
HEA ^{2,4}	HYDRO TECH	107,806	51.83	139,485	67.06		
HEA ^{2,4}	HYDRO TECH - DESIGNATED SKILLS	149,531	71.89	149,531	71.89		
HEA ^{2,4}	HYDRO TECH OPERATOR	146,494	70.43	146,494	70.43		
HEA ^{2,4}	HYDRO TECH OPERATOR - DESIGNATED SKILLS	156,998	75.48	156,998	75.48		
IBEW ^{2,4}	CT SPECIALIST I - VI	102,253	49.16	152,381	73.26		
IBEW ^{2,4}	CT SPECIALIST - LEAD	149,198	71.73	159,994	76.92		
IBEW ^{2,4}	CT SPECIALIST I - V (OPERATORS)	104,666	50.32	145,475	69.94		
IBEW ^{2,4}	CT SPECIALIST I - V (OPERATORS) LEAD	152,755	73.44	152,755	73.44		
IBEW ^{2,4}	MECHANIC OPERATOR I - V	102,253	49.16	133,661	64.26		
IBEW ^{2,4}	MECHANIC OPERATOR - LEAD	140,338	67.47	140,338	67.47		
IBEW ^{2,4}	OPERATOR TECHNICIAN I - V	104,666	50.32	140,421	67.51		
IBEW ^{2,4}	OPERATOR TECHNICIAN - LEAD	147,451	70.89	147,451	70.89		
IBEW ^{2,4}	STOREKEEPER I - V	69,326	33.33	83,158	39.98		
IBEW ^{2,4}	TECHNICIAN CHEMICAL/PERFORMANCE	126,547	60.84	126,547	60.84		
IBEW ^{2,4}	TECHNICIAN OPERATOR I - VI	102,253	49.16	151,757	72.96		
IBEW ^{2,4}	TECHNICIAN OPERATOR - LEAD	148,554	71.42	159,349	76.61		
3,4	SCHEDULE COORDINATOR I	75,525	36.31	100,859	48.49		
3,4	SCHEDULE COORDINATOR II	106,142	51.03	122,907	59.09		
3,4	SCHEDULE COORDINATOR III	128,690	61.87	148,720	71.50		
3,4	SYSTEM DISPATCHER	117,270	56.38	164,112	78.90		
3,4	SYSTEM DISPATCHER, LEAD	128,690	61.87	172,328	82.85		

Page 2 of 2

- Note¹ Non-union employees whose salaries exceed the control may be granted a lump sum merit increase which is not added to base pay.
- Note² 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.
- Note³ Schedule Coordinators and Dispatchers receive overtime, relief pay in addition to step increases.
- Note⁴ Labor rates for 2022 will be updated when available.

**NORTHERN CALIFORNIA POWER AGENCY
FY 2022 BUDGET
DIRECT LABOR AND RELATED COSTS**

ITEM	EXPLANATION	RATE	FORMULAE FOR BUDGET
TOTAL COMPENSATION			
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	0.0% Current MOU expires December 18, 2021. Salary increases unknown at time of print.
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 17%) 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	\$1.42-\$1.47 Differential x 2,080 hours
		Hourly relief differential 5% of base pay	\$3.58-\$3.95 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
PAYROLL TAXES			
FICA (Federal Insurance Contribution Act)	Social Security taxes paid by employer	Old Age Survivor Disability Insurance (OASDI) Maximum wage x 6.2%	\$142,800 \$142,800 x 6.2% = \$8,853.60
	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 3.0% If (Total Comp x 3.1%) <\$210, then (Total Comp x 3.1%), otherwise \$210

**NORTHERN CALIFORNIA POWER AGENCY
FY 2022 BUDGET
DIRECT LABOR AND RELATED COSTS**

ITEM	EXPLANATION	RATE		FORMULAE FOR BUDGET	
EMPLOYEE BENEFITS					
Pension	PERS Retirement 2.5% at 55, 3 year average, as of 12/20/09	Normal cost	11.100%	Determined by PERS Actuary paid on base pay, holiday pay and shift differential	
		Prior service cost	26.467%		
		Pickup – All groups	0.0%		
		Classic Employee Contribution	8.0%		
	PERS Retirement 2% at 62, 3 year average, as of 1/1/2013	New Mbr Employee Contribution	6.5%		
	ICMA 401A, hire date between 1/1/13 and 12/31/18	Employer Contribution	4.0%		
Health Insurance	Based on projection from actuary or historical based estimate as applicable. Medical estimated to increase 6%.	Premium/person/month medical (CTs,HQ Unrep)		Actual	Monthly premium = 1,903.91 currently x 12 mos.
		Premium/person/month medical (Hydro, Geo)		Actual	Monthly premium = 1,978.91 currently x 12 mos.
		Premium/person/month dental		Premiums	Monthly premium x 12 months
		Premium/person/month vision			Monthly premium x 12 months
		Premium/person/month employee assistance			Monthly premium x 12 months
Retirement Health Insurance	Retired employees only	Per actuary estimate as applied to current historical estimate amount/year		Estimated	\$16,707.08 x 169.5 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	Paid on behalf of each Bargaining Group employee at two times the annual rounded up to the nearest thousand	\$.20/\$1,000 Gross Wage (GW) Maximum yearly premium			If (GW/\$1,000 x 2 x \$.20 x 12 mo.)<\$831.60, then (GW/\$1,000 x 2 x \$.20 x 12 mo.), otherwise \$831.60
	Unrepresented only at three times annual salary rounded up to nearest thousand	\$.20/\$1,000 Gross Wage (GW) Maximum yearly premium			If (GW/\$1,000 x 3 x \$.20 x 12 mo.)<\$831.60, then (GW/\$1,000 x 3 x \$.20 x 12 mo.), otherwise \$831.60
Short-Term Disability	Paid on behalf of each employee	\$.10/60% gross weekly wage	Represented		If (GW/2080 x 40 x 60%)<=\$2,750, then (GW/2080 x 40 x 60%)/10 x .10 x 12 otherwise \$330
			Unrepresented		If (GW/2080 x 40 x 60%)<=\$2,750, then (GW/2080 x 40 x 60%)/10 x .10 x 12 otherwise \$330
Long-Term Disability Insurance	Paid on behalf of each employee	\$.48/\$100 Gross Wage (GW) Maximum yearly premium	Represented		If (GW/\$100 x .48)<\$1,055.98 then (GW/\$100 x .48, otherwise \$1,055.98
			Unrepresented		If (GW/\$100 x .48)<\$777.60, then (GW/\$100 x .48), otherwise \$777.60
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).	Rates per \$100 based on current historical estimate:		(Total Comp - (1/3 x OT))/100 x (Rate x Experience Rate)	
		General Office, Clerical	\$0.41		
		GM, Ass't GM, Ops & Eng, Proj Dir, Plan	\$0.59		
		Power Systems	\$2.50		
		Experience Rate	79%		
		Premium Time Factor – 1/3 OT			

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

EXPENDITURES

FISCAL YEAR ENDED JUNE 30			
	Approved	Proposed	Increase
	2021	2022	(Decrease)
Hydroelectric	\$ 54,260,369	\$ 54,081,173	\$ (179,196)
Geothermal	35,561,392	40,662,372	5,100,980
Combustion Turbine No. 1	7,883,578	7,054,684	(828,894)
Combustion Turbine No. 2 (STIG)	7,989,079	8,962,379	973,300
Lodi Energy Center	94,074,960	90,316,958	(3,758,002)
Other Power Supply	370,785,414	398,445,656	27,660,242
Transmission	120,026,101	126,572,671	6,546,570
Legislative & Regulatory	4,088,112	3,910,507	(177,605)
Judicial Action	460,000	300,000	(160,000)
Judicial Action Direct Costs to Programs	(74,282)	(48,812)	25,470
Power Management	9,874,545	10,377,766	503,221
Energy Risk Management	229,845	198,417	(31,428)
Settlements	923,646	975,283	51,637
Integrated Systems Support	266,055	307,165	41,110
Participant Pass Through Costs (TANC, Dues, Etc)	1,590,641	1,717,765	127,124
Support Services	42,235	47,000	4,765
Support Services Reimbursements	(42,235)	(47,000)	(4,765)
Total Annual Expenditures	707,939,455	743,833,984	35,894,529

FUNDING SOURCES

ISO Energy Sales	62,817,135	66,264,019	3,446,884
ISO Energy Sales-Plants	105,258,271	101,639,828	(3,618,443)
Energy Sales to Third Parties	7,593,525	15,005,453	7,411,928
Member Owned Generation ISO Energy Revenue	69,679,260	83,030,430	13,351,170
Ancillary Services Sales	3,988,092	4,317,168	329,076
PM Service Revenue	2,064,318	2,363,211	298,893
Interest and Other Income	25,354,324	24,210,392	(1,143,932)
Total Revenues and Other Income	276,754,925	296,830,501	20,075,576

Net Proposed Funding from Participants

431,184,530	447,003,483	15,818,953
--------------------	--------------------	-------------------

Northern California Power Agency
Participant Funding Requirements (Net)
FY 2022 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	\$29,122,615	\$3,046,641	\$ -	\$ -	\$ -	\$342,441	\$3,159,367	\$700,728	\$6,982,900	\$514,883	\$ -	\$ -	\$2,475,477	\$11,278,663	\$ -	\$ -	\$621,515	\$ -	\$ -
Geothermal	11,757,622	1,984,981	-	26,690	39,505	431,975	1,208,683	432,797	-	82,421	-	-	926,854	5,219,267	-	-	660,133	744,317	-
Combustion Turbine No. 1	5,755,113	1,255,766	-	11,320	20,143	335,714	770,800	335,714	-	104,552	-	-	-	2,397,965	-	-	523,140	-	-
Combustion Turbine No. 2 (STIG)	5,640,565	1,071,707	-	-	-	-	2,228,023	305,367	-	-	-	-	2,035,468	-	-	-	-	-	-
Lodi Energy Center	33,283,101	-	2,430,563	98,654	723,394	604,983	3,498,542	749,674	-	289,343	-	-	-	9,482,872	-	-	657,614	-	14,747,463
	85,559,016	7,359,094	2,430,563	136,664	783,042	1,715,113	10,865,415	2,524,279	6,982,900	991,199	-	-	5,437,800	28,378,766	-	-	2,462,402	744,317	14,747,463
Member Resources-Energy	19,326,063	2,991,083	584,800	-	-	-	855,921	14,371,508	250,638	253,862	-	-	-	(9,275)	-	-	27,526	-	-
Member Resources-Natural Gas	(430,986)	-	(11,940)	(4,016)	(8,128)	(16,584)	(269,936)	(103,177)	-	-	-	-	-	-	-	-	(17,205)	-	-
Western Resource	(2,319,736)	(148,187)	-	(36,279)	(81,262)	(30,938)	(69,941)	(39,608)	(1,512,447)	(284,218)	(74,310)	-	-	-	-	-	(42,546)	-	-
NCPA Contracts & Market Power Purchases	3,342,418	53,271	2,617,633	3,241	280,497	20,287	525,864	(20,516)	(75,251)	-	(54,860)	-	-	-	-	-	(7,748)	-	-
Load Aggregation Costs	282,244,061	14,868,523	14,540,230	690,172	1,614,882	3,428,939	19,279,224	5,563,978	35,155,242	6,257,924	4,618,112	-	-	171,469,721	-	-	4,757,114	-	0
Net GHG Obligations	1,276,784	41,681	151,803	-	-	-	1,083,300	-	-	-	-	-	-	-	-	-	-	-	-
	303,438,604	17,806,371	17,882,526	653,118	1,805,989	3,401,704	21,404,432	5,400,677	47,939,052	6,224,344	4,742,804	-	-	171,460,446	-	-	4,717,141	-	-
	388,997,620	25,165,465	20,313,089	789,782	2,589,031	5,116,817	32,269,847	7,924,956	54,921,952	7,215,543	4,742,804	-	-	199,839,212	-	-	7,179,543	744,317	14,747,463
TRANSMISSION																			
NCPA Plant Transmission *	81,853	24,850	-	334	495	5,408	15,131	5,418	-	1,032	-	-	11,603	-	-	-	8,264	9,318	-
Independent System Operator	126,572,671	\$10,228,259	10,170,816	463,211	1,048,040	2,314,078	12,844,710	3,823,068	24,379,450	3,224,713	3,247,657	-	-	51,658,894	-	-	3,169,773	-	-
	126,654,524	10,253,109	10,170,816	463,545	1,048,535	2,319,486	12,859,841	3,828,486	24,379,450	3,225,745	3,247,657	-	-	51,658,894	-	-	3,178,037	9,318	-
MANAGEMENT SERVICES																			
LEGISLATIVE & REGULATORY																			
Legislative Representation	1,451,939	78,202	-	49,917	51,491	55,011	86,247	59,892	120,791	61,558	58,011	114,113	150,756	378,623	66,709	62,651	57,968	-	-
Regulatory Representation	437,862	23,583	-	15,053	15,528	16,590	26,009	18,062	36,427	18,564	17,494	34,413	45,464	114,182	20,118	18,894	17,481	-	-
Western Representation	691,028	19,481	7,862	4,771	10,678	4,061	9,194	5,211	198,795	28,399	9,769	131,773	78,382	155,093	13,007	8,966	5,586	-	-
JPA Assessment	1,316,878	52,131	47,058	2,656	5,409	11,567	66,203	20,105	126,625	23,018	16,814	114,945	179,039	577,609	32,029	24,931	16,739	-	-
	3,897,707	173,398	54,920	72,397	83,106	87,228	187,653	103,269	482,637	131,539	102,089	395,243	453,641	1,225,507	131,863	115,441	97,774	-	-
Judicial Action																			
Tariffs & Rates	211,188	27,525	121	1,186	2,029	5,436	28,939	10,153	45,427	7,770	7,617	-	9,505	56,563	-	-	7,573	1,343	-
Contingency **	40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	251,188	27,525	121	1,186	2,029	5,436	28,939	10,153	45,427	7,770	7,617	-	9,505	56,563	-	-	7,573	1,343	-
POWER MANAGEMENT																			
Power Mgmt, SCALD, ISS,																			
Energy Risk Mgmt & Settlements	11,611,020	1,037,232	885,282	80,836	137,696	225,669	1,210,176	522,993	1,868,219	411,656	535,731	-	552,523	3,673,807	-	-	317,060	152,141	-
Green Power Program	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Market Purchase Program	110,740	10,800	11,570	10,816	10,817	10,837	11,732	10,974	11,093	-	11,269	-	-	-	-	-	10,833	-	-
Gas Purchase Program	80,418	-	-	7,386	7,689	8,787	20,833	11,713	-	-	-	-	-	-	-	-	8,232	-	-
	11,802,178	1,048,032	912,631	99,038	156,202	245,292	1,242,740	545,680	1,879,311	411,656	547,000	-	552,523	3,673,807	-	-	336,124	152,141	-
	15,957,073	1,248,954	967,673	172,621	241,338	337,956	1,459,332	659,102	2,407,375	550,965	656,706	395,243	1,015,669	4,955,878	131,863	115,441	441,471	153,484	-
TANC- SOT	210,000	84,717	-	-	-	9,547	83,388	10,756	-	9,386	-	-	-	-	-	-	12,206	-	-
BAMx Consulting	837,500	-	180,000	-	-	-	-	-	164,375	-	-	-	-	493,125	-	-	-	-	-
Biggs 60Kv	4,700	-	-	4,700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
APPA Dues	333,045	25,049	-	1,184	4,392	7,198	27,127	13,325	44,616	-	-	45,581	53,840	75,396	12,702	13,837	8,799	-	-
SEPA Dues	19,000	2,436	-	487	487	487	2,436	487	2,436	487	487	2,436	2,436	2,437	487	487	487	-	-
DEED Dues	24,651	1,855	-	88	325	533	2,009	987	3,304	-	-	3,375	3,987	5,583	941	1,025	652	-	-
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	19,125	-	-	-	-	-	-	-	6,375	-	-	3,125	6,375	3,250	-	-	-	-	-
Metering Maintenance	142,000	5,995	72,000	5,995	2,998	2,998	8,993	7,048	11,991	5,995	11,991	-	-	-	-	-	5,995	-	-
Customer Programs Projects **	105,234	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WRGIS Certificate Transfer Fees **	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pass Through Costs	1,717,765	120,885	252,000	13,287	9,035	21,596	124,786	33,436	233,929	16,702	13,311	55,350	67,471	580,624	14,963	16,182	28,973	-	-
Support Services	47,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Services Reimbursements	(47,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTHER THIRD PARTY REVENUE																			
PM Service Revenue (Nexant)	(2,126,890)	(155,473)	(169,479)	(13,575)	(26,033)	(37,112)	(197,887)	(86,566)	(274,514)	(65,646)	(90,861)	-	(91,636)	(744,758)	-	-	(51,340)	(28,084)	(93,725)
PM Service Revenue (A&G)	(236,321)	(25,651)	(10,192)	(1,059)	(3,197)	(7,285)	(31,854)	(8,761)	(15,681)	(3,925)	(1,995)	(1,045)	(16,145)	(98,656)	(411)	(374)	(10,090)	-	-
Member-Owned Generation ISO Energy Revenue	(83,954,288)	-	(487,555)	-	-	-	-	-	(1,344)	(1,569,384)	-	-	-	(81,604,231)	-	-	(281,773)	-	-
Revenue from Customers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(86,317,499)	(181,124)	(677,227)	(14,634)	(29,230)	(44,397)	(229,741)	(95,327)	(291,539)	(1,638,954)	(92,856)	(1,045)	(107,982)	(82,447,645)	(411)	(374)	(343,202)	(28,084)	(93,725)
JPA Assessment - Others																			
Non-NCPA Participants	59,624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,018	52,606
Credits to Participants	(59,624)	(2,360)	(2,131)	(120)	(245)	(524)	(2,997)	(910)	(5,733)	(1,042)	(761)	(5,204)	(8,106)	(26,152)	(1,450)	(1,129)	(758)	-	-
	-	(2,360)	(2,131)	(120)	(245)	(524)	(2,997)	(910)	(5,733)	(1,042)	(761)	(5,204)	(8,106)	(26,152)	(1,450)	(1,129)	(758)	7,018	52,606
NET ANNUAL BUDGET COST	\$ 447,003,483	\$ 36,604,930	\$ 31,024,220	\$ 1,424,481	\$ 3,858,463	\$ 7,750,934	\$ 46,481,068	\$ 12,349,743	\$ 81,645,434	\$ 9,368,958	\$ 8,566,861	\$ 444,344	\$ 6,416,455	\$ 174,560,811	\$ 144,965	\$ 130,120	\$ 10,484,064	\$ 886,053	\$ 14,706,344
FY2021 Net Annual Budget Cost	431,184,530	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
Incr (decr)	15,818,953	1,503,524	(10,017,954)	59,603	456,270	692,797	5,195,682	677,808	(5,780,069)	429,547	(1,200,366)	(11,693)	241,292	20,060,336	(3,358)	(5,258)	709,370	224,546	2,581,872

* 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.

Funding Requirements (Net)

**Northern California Power Agency
Participant Funding Requirements (Gross)
FY 2022 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	\$54,081,173	\$5,542,497	\$ -	\$ -	\$ -	\$ 756,753	\$ 5,747,569	\$1,274,774	\$ 12,703,402	\$ 936,682	\$ -	\$ -	\$5,470,504	\$ 20,518,322	\$ -	\$ -	\$1,130,669	\$ -	\$ -
Geothermal	40,580,519	6,851,006	-	92,118	136,350	1,490,928	4,171,677	1,493,768	-	284,469	-	-	3,198,963	18,013,895	-	-	2,278,394	2,568,951	-
Combustion Turbine No. 1	7,054,684	1,539,332	-	13,880	24,691	411,518	944,851	411,518	-	128,165	-	-	-	2,939,458	-	-	641,271	-	-
Combustion Turbine No. 2 (STIG)	8,962,379	1,702,852	-	-	-	-	3,540,140	418,759	-	-	-	-	3,300,629	-	-	-	-	-	-
Lodi Energy Center	90,316,958	-	6,215,309	252,280	1,849,815	1,547,041	8,946,284	1,917,038	-	739,900	-	-	-	24,249,118	-	-	1,681,617	-	42,918,556
	200,995,713	15,635,687	6,215,309	358,277	2,010,857	4,206,240	23,350,520	5,515,857	12,703,402	2,089,216	-	-	11,970,096	65,720,793	-	-	5,731,952	2,568,951	42,918,556
Member Resources-Energy	67,416,502	10,838,465	6,287,818	-	-	-	1,817,854	-	44,667,928	250,638	816,798	-	-	2,709,475	-	-	27,526	-	-
Member Resources-Natural Gas	2,981,422	-	958,905	17,319	48,359	163,958	1,280,681	410,604	-	-	-	-	-	-	-	-	101,596	-	-
Western Resource	27,302,082	1,744,337	-	427,218	956,143	363,642	823,293	466,564	17,800,473	3,345,492	874,777	-	-	-	-	-	500,146	-	-
NCPA Contracts & Market Power Purchases	17,224,803	100,214	6,730,422	71,549	339,734	130,527	4,657,595	656,930	2,458,487	-	1,948,308	-	-	-	-	-	131,039	-	-
Load Aggregation Costs	282,244,061	14,868,523	14,540,230	690,172	1,614,882	3,428,939	19,279,223	5,563,978	35,155,242	6,257,924	4,618,112	-	-	171,469,722	-	-	4,757,114	-	0
Net GHG Obligations	1,276,784	41,681	151,803	-	-	-	1,083,300	-	-	-	-	-	-	-	-	-	-	-	-
	398,445,654	27,593,220	28,669,178	1,206,258	2,959,118	4,087,066	28,941,946	7,098,076	100,082,130	9,854,054	8,257,995	-	-	174,179,197	-	-	5,517,421	-	-
	599,441,387	43,228,907	34,884,487	1,564,535	4,969,975	8,293,306	52,292,466	12,613,933	112,785,532	11,943,270	8,257,995	-	11,970,096	239,899,990	-	-	11,249,373	2,568,951	42,918,556

TRANSMISSION

NCPA Plant Transmission *	81,853	24,850	-	334	495	5,408	15,131	5,418	-	1,032	-	-	11,603	-	-	-	8,264	9,318	-
Independent System Operator	126,572,671	10,228,259	10,170,816	463,211	1,048,040	2,314,078	12,844,710	3,823,068	24,379,450	3,224,713	3,247,658	-	-	51,658,895	-	-	3,169,773	-	-
	126,654,524	10,253,109	10,170,816	463,545	1,048,535	2,319,486	12,859,841	3,828,486	24,379,450	3,225,745	3,247,658	-	11,603	51,658,895	-	-	3,178,037	9,318	-

MANAGEMENT SERVICES

LEGISLATIVE & REGULATORY

Legislative Representation	1,454,886	78,361	-	50,018	51,595	55,122	86,422	60,014	121,036	61,683	58,129	114,345	151,062	379,392	66,845	62,778	58,086	-	-
Regulatory Representation	438,978	23,644	-	15,092	15,568	16,632	26,076	18,108	36,520	18,611	17,539	34,501	45,580	114,473	20,169	18,942	17,526	-	-
Western Representation	693,937	19,563	7,895	4,791	10,723	4,078	9,233	5,232	199,632	28,519	132,327	78,712	155,749	13,062	9,001	5,609	-	-	-
JPA Assessment	1,322,706	52,362	47,267	2,668	5,433	11,618	66,496	20,194	127,185	23,120	16,889	115,453	179,831	580,165	32,171	25,041	16,813	-	-
	3,910,507	173,829	55,162	72,569	83,319	87,450	188,226	103,547	484,372	131,933	102,367	396,626	455,185	1,229,779	132,246	115,762	98,034	-	-
Judicial Action	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tariffs & Rates	211,188	27,525	121	1,186	2,029	5,436	28,939	10,153	45,427	7,770	7,617	-	9,505	56,564	-	-	7,573	1,343	-
Contingency **	40,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	251,188	27,525	121	1,186	2,029	5,436	28,939	10,153	45,427	7,770	7,617	-	9,505	56,564	-	-	7,573	1,343	-

POWER MANAGEMENT

Power Mgmt, SCALD, ISS,	11,661,956	1,041,263	890,616	81,168	138,301	226,526	1,215,328	525,158	1,875,839	413,267	537,751		554,688	3,685,340			318,276	152,810	5,624
Energy Risk Mgmt & Settlements	0		-		-	-	-	-	-	-				-	-		-		
Green Power Program	115,897	11,303	12,109	11,320	11,321	11,341	12,278	11,485	11,609		11,794						11,337		
Market Purchase Program	80,779		15,850	7,419	7,723	8,826	20,926	11,766									8,269		
Gas Purchase Program	11,858,632	1,052,566	918,575	99,906	157,345	246,693	1,248,533	548,409	1,887,449	413,267	549,545	-	554,688	3,685,340	-	-	337,882	152,810	5,624
	16,020,327	1,254,020	973,858	173,661	242,693	339,579	1,465,698	662,109	2,417,248	552,970	659,529	396,626	1,019,378	4,971,683	132,246	115,762	443,488	154,153	5,624
TANC- SOT	210,000	84,717				9,547	83,388	10,756		9,386							12,206		
BAMx Consulting	837,500	-	180,000						164,375		-			493,125					
Biggs 60Kv	4,700			4,700															
APPA Dues	333,045	25,049		1,184	4,392	7,198	27,127	13,325	44,616		45,581	53,840	75,396	12,702	13,837	8,799			
SEPA Dues	19,000	2,436		487	487	2,436	487	2,436	487	487	487	2,436	2,436	487	487	487			
DEED Dues	24,661	1,855	88	325	533	2,009	987	3,304				3,375	3,987	5,583	941	1,025	652		
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	19,125								6,375		3,125	6,375	3,250						
Metering Maintenance	142,000	5,995	72,000	5,995	2,998	2,998	8,993	7,048	11,991	5,995	11,991						5,995		
Customer Programs Projects **	105,235																		
WREGIS Certificate Transfer Fees**	10,000																		
Pass Through Costs	1,717,766	120,885	252,000	13,287	9,035	21,596	124,786	33,436	233,929	16,702	13,311	55,350	67,471	580,624	14,963	16,182	28,973	-	-

Support Services

Support Services Reimbursements	47,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(47,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JPA Assessment - Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-NCPA Participants	59,624	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,018	52,606
Credits to Participants	(59,624)	(2,360)	(2,131)	(120)	(245)	(524)	(2,997)	(910)	(5,733)	(1,042)	(761)	(5,204)	(8,106)	(26,152)	(1,450)	(1,129)	(758)	-	-
	-	(2,360)	(2,131)	(120)	(245)	(524)	(2,997)	(910)	(5,733)	(1,042)	(761)	(5,204)	(8,106)	(26,152)	(1,450)	(1,129)	(758)	7,018	52,606
GROSS ANNUAL BUDGET COST	\$ 743,833,984	\$ 54,854,561	\$ 46,279,030	\$ 2,214,908	\$ 6,269,993	\$ 10,973,444	\$ 66,739,795	\$ 17,137,055	\$ 139,810,427	\$ 15,737,644	\$ 12,177,732	\$ 446,772	\$ 13,060,442	\$ 297,085,040	\$ 145,759	\$ 130,815	\$ 14,899,113	\$ 2,739,440	\$ 42,976,785

LESS: THIRD PARTY REVENUE

Market Power Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ISO Energy Sales	66,264,019	7,393,030	9,815,808	370,233	735,043	367,296	5,675,540	978,420	34,887,451	2,364,503	3,184,367	-	-	-	-	-	492,328	-	-
ISO Energy Sales-Plants	101,639,828	7,395,093	3,260,018	197,488	1,067,461	2,266,448	10,509,550	2,620,417	5,053,251	977,624	-	-	5,350,931	33,664,376	-	-	2,998,288	1,745,816	24,533,067
Energy Sales to Third Parties	15,005,453	1,734,140	-	-	-	-	28,750	10,523,813	-	-	-	-	-	2,718,750	-	-	-	-	-
Member-Owned Generation ISO Energy Revenue	83,030,430	-	497,555	-	-	-	-	-	1,344	1,569,384	-	-	-	80,680,374	-	-	281,773	-	-
Ancillary Services Sales	4,317,168	224,123	76,037	3,086	22,630	56,131	341,863	75,001	513,690	46,929	-	-	268,947	2,050,222	-	-	66,293	-	572,214
Transmission Sales	110,376	18,634	-	251	371	4,055	11,347	4,063	-	774	-	-	8,701	-	-	6,197	6,987	-	-
Gas Transfer Credits	3,412,408	-	970,845	21,335	56,487	180,542	1,550,617	513,781	-	-	-	-	-	-	-	-	118,801	-	-
Fuel and Pipeline Transport Credits	1,788,156	339,750	-	-	-	-	706,322	89,408	-	-	-	-	652,677	-	-	-	-	-	-
GHG Allowance Credits	6,205,867	19,798	413,752	16,795	123,141	102,987	636,690	129,303	-	49,255	-	-	41,535	1,614,260	-	-	111,945	-	2,946,416
Western O&M Credits	10,325,172	659,678	-	161,671	361,599	137,523	311,358	176,445	6,731,814	1,265,206	330,825	-	-	-	-	-	189,150	-	-
PM Service Revenue	2,363,211	181,124	179,672	14,634	29,230	44,397	229,741	95,327	290,195	69,570	92,556	1,045	107,982	843,414	411	374	61,429	28,084	

Northern California Power Agency
Calculation of JPA Assessment for Fiscal Year 2022 Budget

L & R Programs	Proposed Budget FY 2022	Governance Committee Recommended Allocation Percentages	Base Costs for JPA Assessment	JPA Assessment per MWh 8,779,473 Agency MWh Load
Legislative	\$ 2,098,426	30.8082%	\$ 646,487	
Regulatory	632,824	30.8082%	194,962	
Customer Programs	475,429	100.0000%	475,429	
Total	\$ 3,206,679		\$ 1,316,878	\$ 0.15000 per MWh

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	347,554	3.9587%	\$52,131	(\$34,820)	(\$10,501)	(\$31,695)	(\$77,016)	\$ (24,885)
BART	313,733	3.5735%	47,058				0	47,058
Biggs	17,708	0.2017%	2,656	(22,226)	(6,703)	(31,695)	(60,624)	(57,967)
Gridley	36,064	0.4108%	5,409	(22,927)	(6,914)	(31,695)	(61,536)	(56,126)
Healdsburg	77,114	0.8783%	11,567	(24,494)	(7,387)	(31,695)	(63,576)	(52,009)
Lodi	441,366	5.0272%	66,203	(38,402)	(11,581)	(31,695)	(81,678)	(15,476)
Lompoc	134,035	1.5267%	20,105	(26,667)	(8,042)	(31,695)	(66,405)	(46,300)
Palo Alto	844,191	9.6155%	126,625	(53,783)	(16,219)	(31,695)	(101,698)	24,927
Plumas Sierra	153,460	1.7479%	23,018	(27,409)	(8,266)	(31,695)	(67,370)	(44,352)
Port Of Oakland	112,099	1.2768%	16,814	(25,830)	(7,790)	(31,695)	(65,315)	(48,500)
Redding	766,322	8.7286%	114,945	(50,810)	(15,323)	(31,695)	(97,828)	17,117
Roseville	1,193,630	13.5957%	179,039	(67,125)	(20,243)	(31,695)	(119,064)	59,975
Santa Clara	3,850,852	43.8620%	577,609	(168,585)	(50,840)	(31,695)	(251,121)	326,488
Shasta Lake	213,536	2.4322%	32,029	(29,703)	(8,958)	(31,695)	(70,356)	(38,326)
Truckee Donner	166,209	1.8932%	24,931	(27,896)	(8,413)	(31,695)	(68,004)	(43,073)
Ukiah	111,599	1.2711%	16,739	(25,811)	(7,784)	(31,695)	(65,290)	(48,550)
Totals	8,779,473	100.0000%	\$1,316,878	(\$646,487)	(\$194,962)	(\$475,429)	(\$1,316,878)	(0)

Northern California Power Agency
Calculation of JPA Assessment for Fiscal Year 2022 Budget

JPA Assessment Amount \$ / MWh			\$0.150	Participant Revenue Share
Member	CY20 Energy Delivered MWh	Share %	JPA Assessment	
Alameda	347,554	3.9587%	\$52,131	\$2,360
BART	313,733	3.5735%	47,058	2,131
Biggs	17,708	0.2017%	2,656	120
Gridley	36,064	0.4108%	5,409	245
Healdsburg	77,114	0.8783%	11,567	524
Lodi	441,366	5.0272%	66,203	2,997
Lompoc	134,035	1.5267%	20,105	910
Palo Alto	844,191	9.6155%	126,625	5,733
Plumas Sierra	153,460	1.7479%	23,018	1,042
Port Of Oakland	112,099	1.2768%	16,814	761
Redding	766,322	8.7286%	114,945	5,204
Roseville	1,193,630	13.5957%	179,039	8,106
Santa Clara	3,850,852	43.8620%	577,609	26,152
Shasta Lake	213,536	2.4322%	32,029	1,450
Truckee Donner	166,209	1.8932%	24,931	1,129
Ukiah	111,599	1.2711%	16,739	758
Subtotal NCPA Participants	8,779,473	100.0000%	1,316,878	\$59,624
Other participants:				
TID ¹	739,050		7,018	
Other LEC Participants:				
City of Azusa ²	n/a		2,950	
CDWR ²	n/a		35,482	
MID ²	n/a		11,348	
PWRPA ²	n/a		2,826	
Subtotal Other LEC participants			52,606	
Subtotal Other participants	-		59,624	
Total NCPA and Other			\$1,376,502	

¹ CY2020 MWh share of Geothermal generation (\$0.150 x 6.3305% x 739,050 MWh)

² 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 706,102

CDWR \$0.150 x 33.5000% x 706,102

MID \$0.150 x 10.7143% x 706,102

PWRPA \$0.150 x 2.6679% x 706,102