



FYZOZO 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.

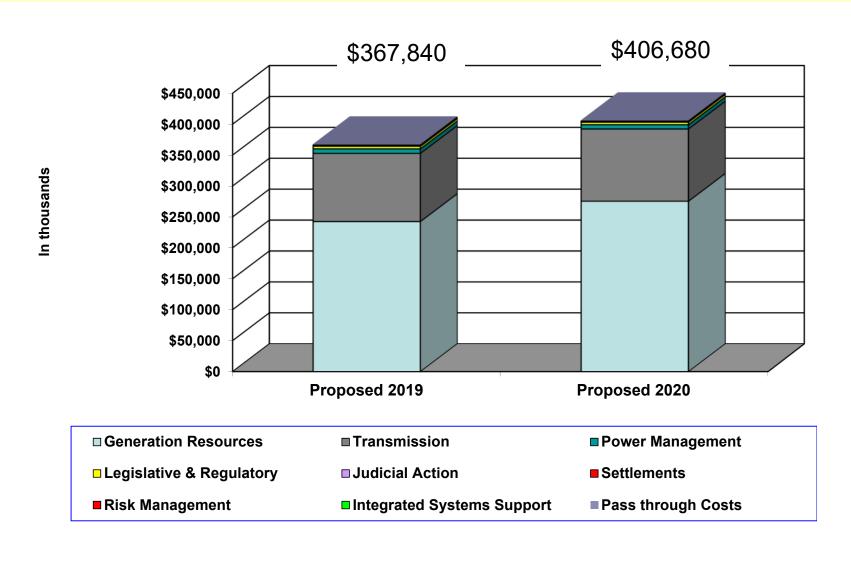
STRATEGIES

- 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.

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Proposed Budget FY 2019-2020 (net of revenues)

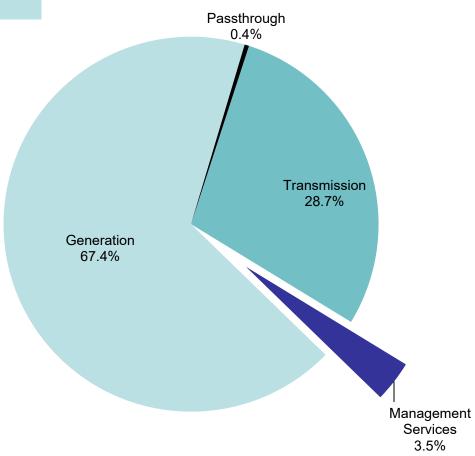
Proposed FY 2020 Budget, net of revenues, reflects an increase of \$38.8 million or 10.56% from FY 2019, primarily from higher net load volume and costs.



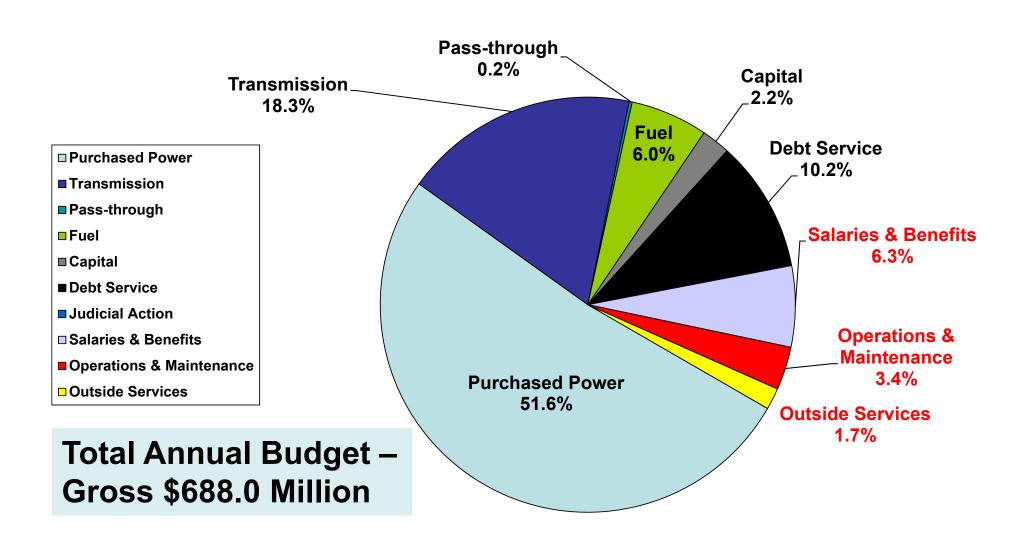
Proposed Budget (Net) FY 2019-2020

Total Annual Budget \$406.7 Million

NCPA Budget



Proposed Budget by Line Item (Before Revenues) FY 2019-2020



NORTHERN CALIFORNIA POWER AGENCY ANNUAL BUDGETS

Approved Proposed 2019 2020 Inc/(Dec) **GENERATION RESOURCES** NCPA Plants -Controllable Plant Operating Costs 58,111,172 4,481,619 62,592,791 Pass Through Plant Costs 22,302,565 (21, 195, 260)1,107,305 80,413,737 63,700,096 **Total NCPA Plants** (16,713,641)27,221,136 (1,329,853)25,891,283 Member Resources - Energy Member Resources - Natural Gas 713,470 (639,218)74,252 Western Resources (1,811,284)(705,967)(2,517,251)NCPA Contracts & Market Pow er Purchases 818,707 (2,037,126)(1,218,419)Load Aggregation Costs 142,529,660 113,499,933 256,029,593 Net GHG Obligations 1,122,972 (626,017)496,955 **TOTAL GENERATION RESOURCES** 251,008,398 91,448,111 342,456,509

112,457,893

TRANSMISSION - Independent System Operator
MANAGEMENT SERVICES

Legislative & Regulatory
Judicial Action
Judicial Action - Direct to Programs
Pow er Management
Pow er 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

4,183,433	(146,921)	4,036,512
625,000	-	625,000
(70,623)	(4,023)	(74,646)
10,603,658	(73,146)	10,530,512
(1,375,511)	11,001	(1,364,510)
254,877	(47,841)	207,036
936,236	38,524	974,760
269,160	(29,689)	239,471
15,426,230	(252,095)	15,174,135
1,619,170	(58,723)	1,560,447
42,316	1,369	43,685
(42,316)	(1,369)	(43,685)
380,511,691	95,512,220	476,023,911
(1,886,258)	(350,239)	(2,236,497)
-	(67,107,648)	(67,107,648)
(10,785,006)	10,785,006	-
\$ 367.840.427	\$ 38.839.339	\$ 406.679.766

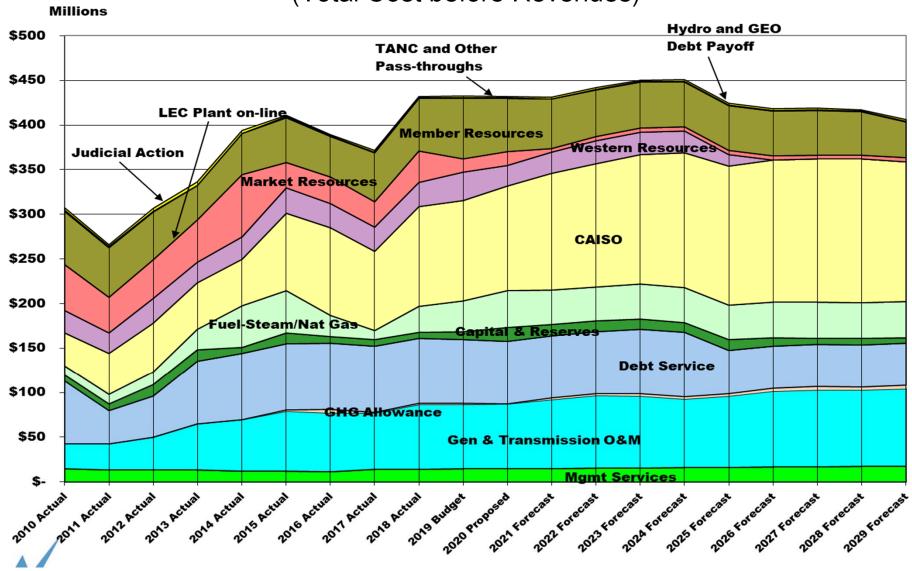
4,374,927

FISCAL YEAR ENDED JUNE 30

Note: Areas most controllable by NCPA are highlighted in yellow, which are higher by 5.4% for FY 2020.

116,832,820

Northern California Power Agency Fiscal Year Annual Budget and Ten-Year Forecast (Total Cost before Revenues)



Generation Plants Cost Drivers

NCPA Plant costs (net of revenues) are <u>down</u> from \$80.4 million to 63.7 million in 2020 (20.8% or \$16.7 million) primarily due to:

Decrease net costs from:

- Increases in Plants' Energy Sales from higher generation (\$27.1 million, 2,571,661 MWh in FY 2019 vs 2,907,494 MWh in FY 2020)
- Increases in Fuel and Pipeline Transport Credits (\$0.8 million) due to higher prices
- Decreased net debt service (\$1.8 million) due to refunding of Hydro debt

Increase net costs from:

- Increased fuel costs for LEC and gas projects (\$7.0 million)
- Higher LEC variable costs (\$0.6 million) for its Siemens service contract due to increased generation
- Higher O&M Projects, Capital Projects and Maintenance reserve costs (\$2.1 million) for overhauls and new equipments
- Net increased Capital Development reserve funding (\$3.3 million) for major Hydro projects in FY 2020

Generation Resources Cost Drivers

Costs to purchase power to serve member and customer loads are projected to increase from \$170.6 million to \$211.6 million (24.0% or \$41.0 million) due to:

- Increased Load Aggregation costs, net of member owned generation CAISO energy sales (\$46.3 million)
- Net reduction from Member Contracts costs less revenue (\$1.4 million)
- Net reduction from Natural Gas Contracts (\$0.6 million)
- Net reduction from NCPA Contracts costs less revenue (\$2.0 million)
- Net reduction from Western Resources costs less revenue (\$0.7 million)
- Decreased GHG obligations (\$0.6 million) due to allowance balances

Transmission Cost Drivers

Transmission Costs are projected to increase from \$112.5 million in FY 2019 to \$116.8 million in FY 2020 (\$4.3 million or 3.8%) due to:

- Increases in gross load of 6,440,765 for FY 2019 to 6,811,845 for FY 2020
- Budgeted increase of 5.33% in Transmission Access Charges for FY 2020





NCPA Management Services Cost Drivers

NCPA Management Services costs are projected to decrease from \$15.4 million in FY 2019 to \$15.2 million in FY 2020 (1.3%):

- Non-personnel related costs reduced \$158k
- Outside Services reduced \$166k
- Salaries & Benefit increased \$242k
- Changes in one-time capital projects (net decrease of \$118k from 2019)

Other Drivers – Pass-through costs

- Increase in APPA dues of \$12k
- Increase meter maintenance costs of \$22k
- Decrease in SOT of \$84k
- Decrease in Member Services projects of \$8k

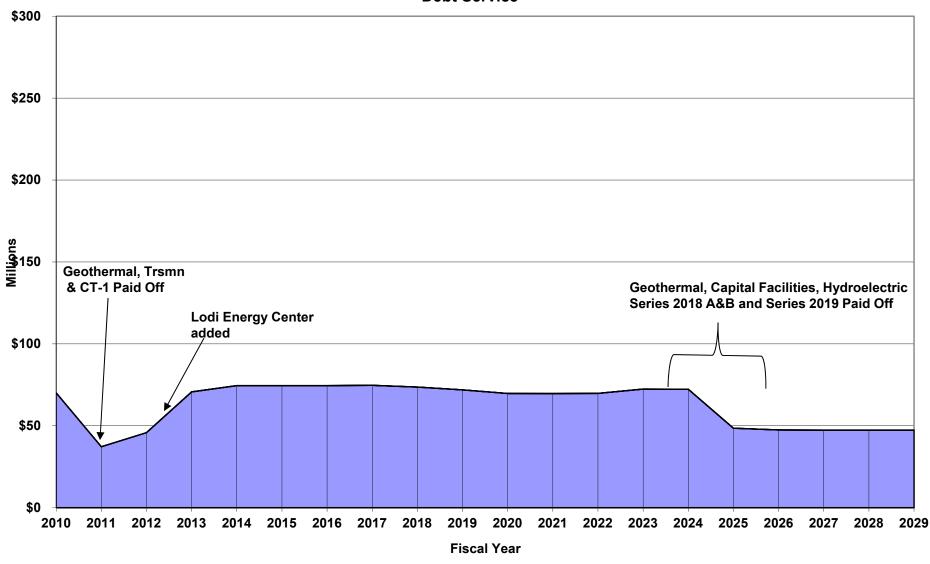




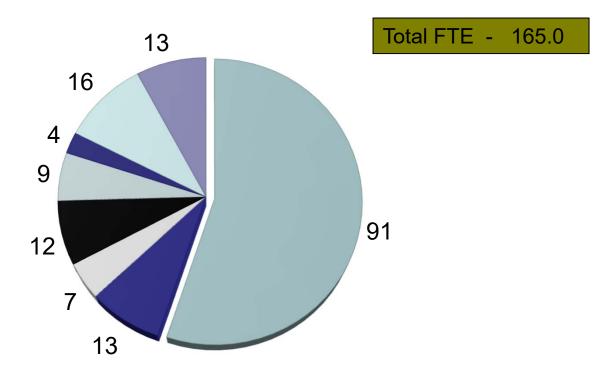




Northern California Power Agency Debt Service



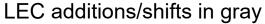
Proposed Staffing by Department Proposed Budget FY 2019-20 Number of FTEs

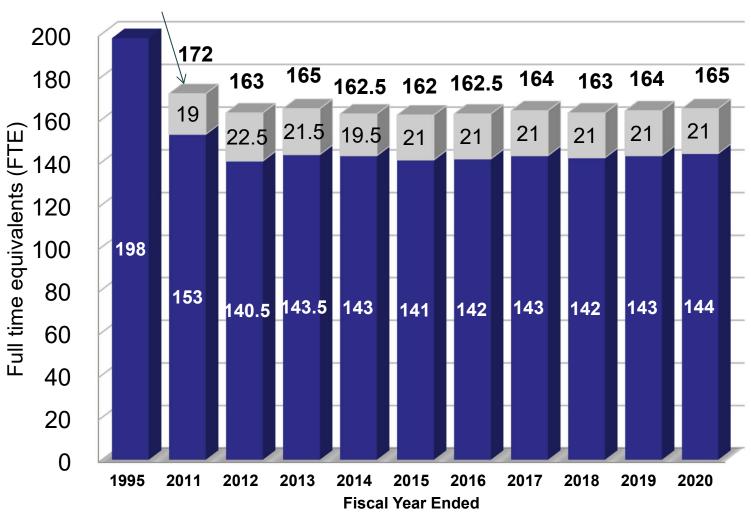


- Generation Services
- Legislative & Regulatory
- Accounting & Finance
- Information Services

- Power Management
- Scheduling & Dispatch
- Power Settlements
- General Mgr & Administrative

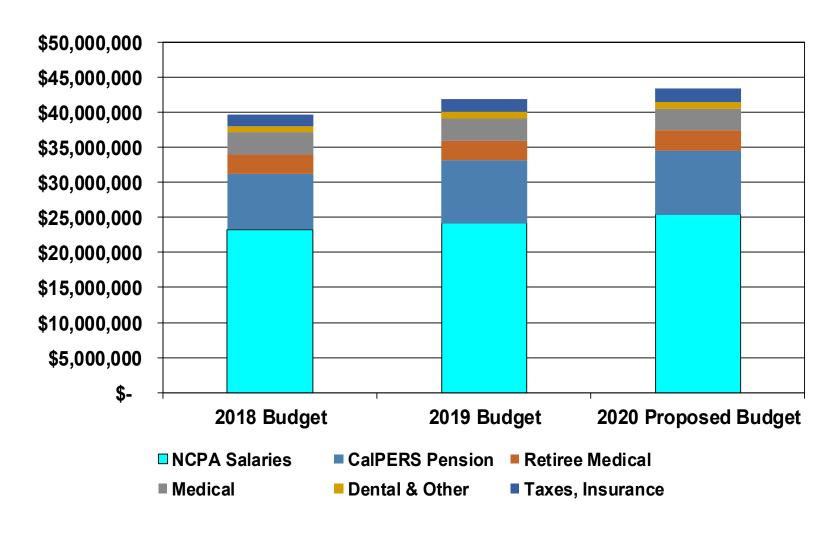
Historical and Proposed Staffing FTEs - Budget FY 2020



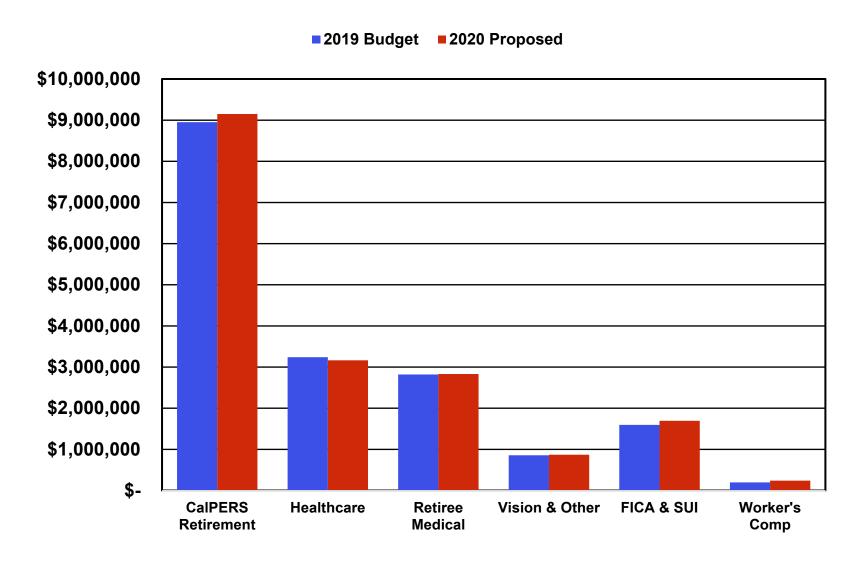


Salaries and Benefits Comparison to Prior Years

Salaries and Benefits are above prior year budget (3.6%). Key drivers are 5.1% wage increases and two new positions (two part-time interns and one CT Specialist).

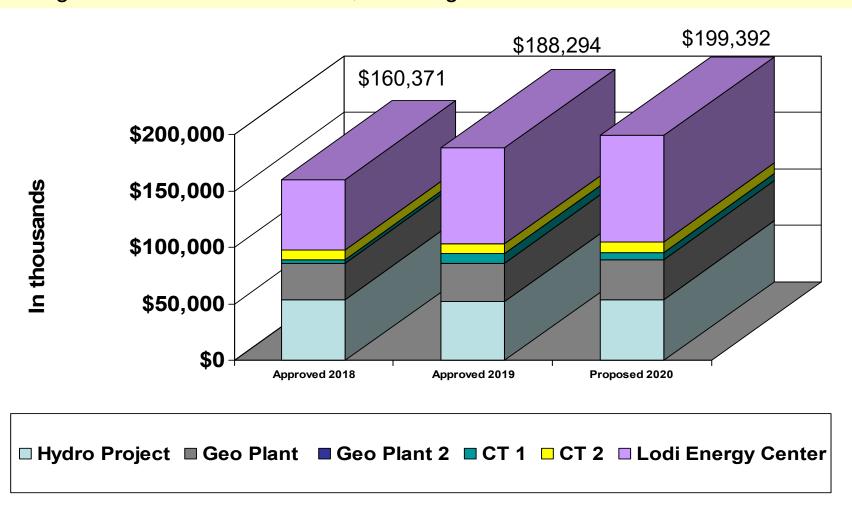


Benefit Changes 2019-2020



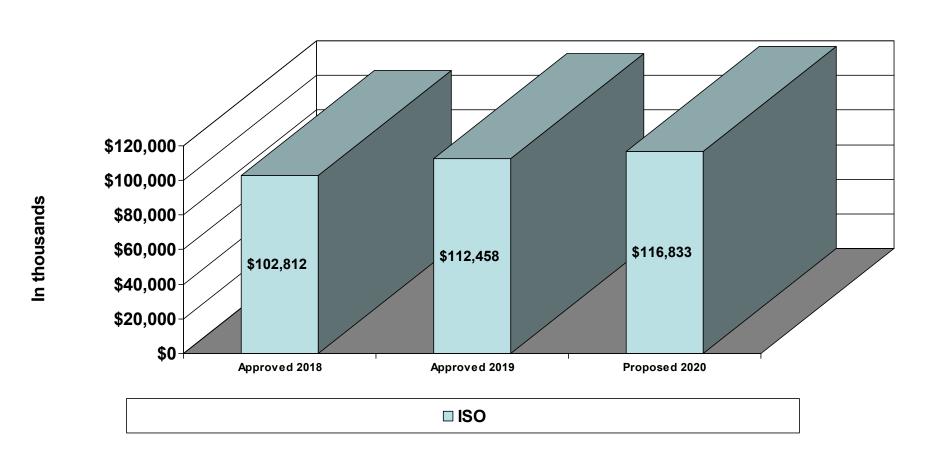
Proposed Budget Generation Resources – NCPA Plants

Proposed FY 2020 Budget reflects a \$11.1 million or 5.9% overall <u>increase</u> from FY 2019 on a gross basis. After revenues, the budget is down \$16.7 million from FY 2019



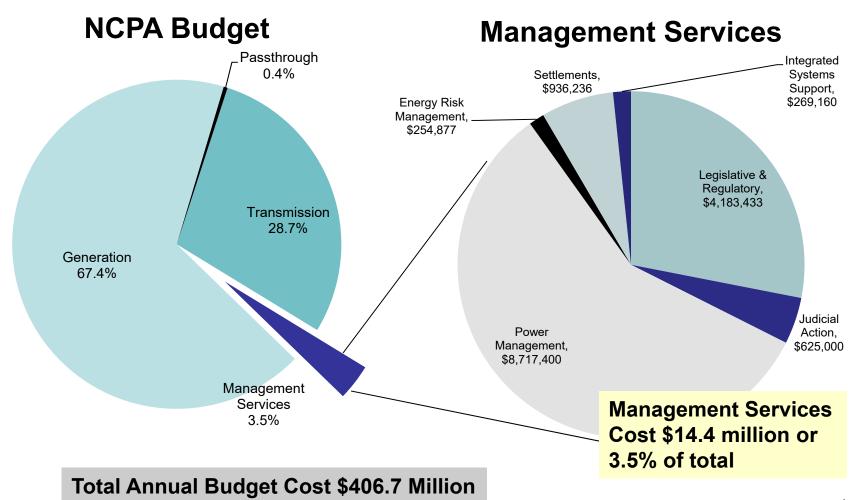
Proposed Budget Transmission (Net CAISO Charges)

Proposed 2020 budget reflects an increase from 2019 of \$4.4 million or 3.9%



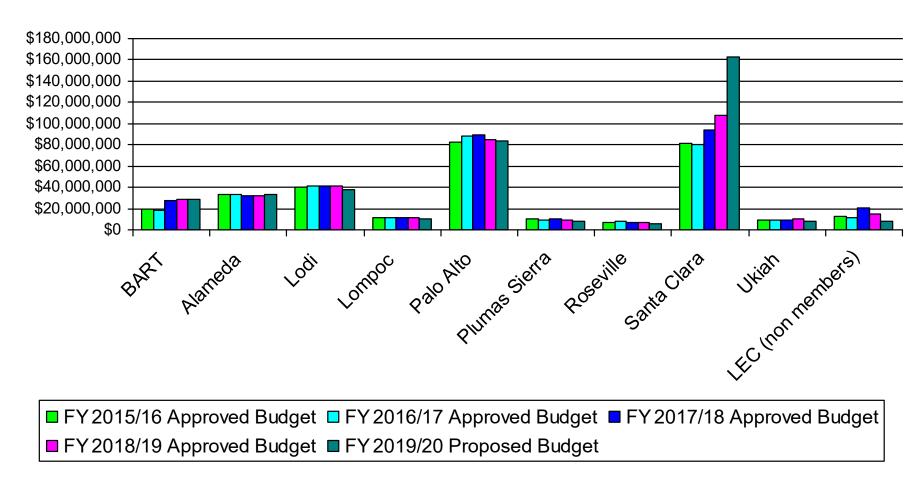
Proposed Budget Management Services

Proposed FY 2020 Net Budget reflects increase of \$38.8M from FY 2019 budget due to increases in load costs



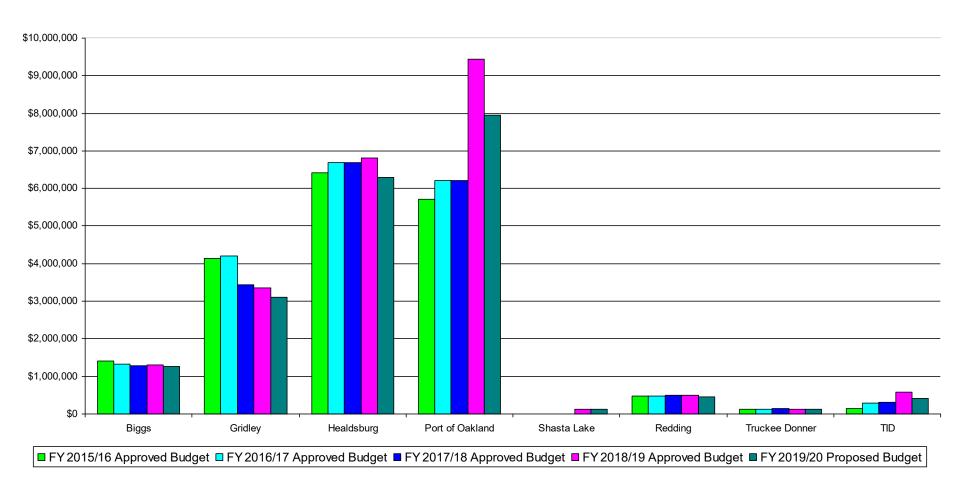
Participant Funding Requirements (Net) Budget FY 2019/20

Participants (1 of 2)



Participant Funding Requirements (Net) Budget FY 2019/20

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 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

Subtotal

System Control. And Data Acquisition WECC/NERC Compliance & Participation

\$ 27,355,902 \$ 53,722 \$ 27,409,624 5.8% 6,948,236 (2,362,844) 4,585,392 1.0% 7,533,357 (2,629,831) 4,903,526 1.0% 7,242,922 (419,756) 6,823,166 1.4% 31,333,320 (11,354,932) 19,978,388 4.2% 80,413,737 (16,713,641) 63,700,096 13.4% 27,221,136 (1,329,853) 25,891,283 5.4% 713,470 (639,218) 74,252 0.0% (1,811,284) (705,967) (2,517,251) -0.5% 818,707 (2,037,126) (1,218,419) -0.3% 142,529,660 113,499,933 256,029,593 53.8% 1,122,972 (626,017) 496,955 0.1%	FISCAL YEAR ENDED JUNE 30						
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6,948,236 (2,362,844) 4,585,392 1.0% 7,533,357 (2,629,831) 4,903,526 1.0% 7,242,922 (419,756) 6,823,166 1.4% 31,333,320 (11,354,932) 19,978,388 4.2% 80,413,737 (16,713,641) 63,700,096 13.4% 27,221,136 (1,329,853) 25,891,283 5.4% 713,470 (639,218) 74,252 0.0% (1,811,284) (705,967) (2,517,251) -0.5% 818,707 (2,037,126) (1,218,419) -0.3% 142,529,660 113,499,933 256,029,593 53.8% 1,122,972 (626,017) 496,955 0.1% 170,594,661 108,161,752 278,756,413 58.6% 251,008,398 91,448,111 342,456,509 71.9% 3,662,271 (849,185) 2,813,086 0.6% 1,549,274 (227,985) 1,321,289 0.3% 112,457,893 4,374,927 116,832,820 24.5% 2,020,121 <td< th=""><th></th><th></th><th></th><th></th></td<>							
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	235,065	(34,631)	200,434	0.0%			

(24,999)

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1.3%

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NORTHERN CALIFORNIA POWER AGENCY ANNUAL BUDGETS

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TOTAL ADJUSTED NET ANNUAL BUDGET COST

\$ 367,840,427 \$

38,839,339 \$

406,679,766

Generation Services

FY 2020 Budget and Business Plan

Generation Services Business Unit

Mission Statement

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

Goals

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

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

Additional Information

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

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

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

The proposed budget decrease for GS for FY 2020 is \$15,213,641, 19.3% below the FY 2019 budget.

Energy production table below compares the proposed and current years' production. Energy production at the hydroelectric facility is expected to increase this year in anticipation of above average precipitation. Geothermal energy production is projected to increase due to greater unit availability. Units one and two had planned outages in FY19 for major overhauls. No major overhauls are scheduled for FY20. LEC energy production will increase substantially, largely due to a lower gas transport rate that allows LEC to run more frequently.

	Proposed FY 2020					FY 2019				
TOTAL All Plants	\$	21.91 based on total generation of 2,907,494 MWh			\$	30.69	based on total generation of 2,571,661 MWh			
Hydro	\$	53.86	based on	508,897	MWh	\$	54.03	based on	506,307	MWh
Geothermal	\$	5.90	based on	776,885	MWh	\$	9.28	based on	748,471	MWh
CT 1	\$	375.98	based on	13,042	MWh	\$	1,000.18	based on	7,532	MWh
CT 2	\$	741.17	based on	9,206	MWh	\$	1,385.14	based on	5,229	MWh
LEC	\$	12.49	based on	1,599,464	MWh	\$	24.03	based on	1,304,122	MWh

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

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

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

Hydroelectric Facilities

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

Current Operating Philosophy

The 260 MW (gross) plants are forecasted to generate 509 GWH for the 2019-2020 budget year, assuming an average water year.

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

Business Plan

The Hydro Facilities FY 2020 Business Plan is designed to bring focus to the business requirements of the facility by establishing long-term goals (>1 year) that are supported by shorter-term goals (<1 year), which can also be defined as sub-goals or milestones. The business requirements addressed by the goals are based on the business needs of the NCPA members that own the facility and ultimately pay the costs to operate and maintain the facility. The assumed business needs of the owners relative to the Hydro facilities is the need for reliable, renewable energy at the lowest reasonable cost provided with the greatest possible reliability.

Business Plan Rationale

The basic rationale is to establish a goal based Business Plan that supports the performance objectives for FY 2020 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 2020 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 development
- 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 80 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.

Over the last several years, capital improvement projects at the Geothermal Facility have included new and more efficient turbines at Units 1 and 2 at Plant 1 resulting in a 5 MW increase in net generation. Recently, a new direct steam pipeline to Plant #2 was installed in 2017 resulting in a 1 MW increase in net generation. The Plant 1 turbine upgrades, and Plant #2 main steam pipeline significantly extends the Geothermal Facilities' ability to provide value to the member/owners in the form of reliable, renewable energy at a reasonable price.

Current Operations

The Geothermal Facility is expected to average 100 gross megawatts in a predominantly base load operation over the next year. When market conditions dictate, Unit 4 output can be varied to coincide with system load. The location of the steam wells that supply Plant 2 are such that steam that is not used to generate during potential load following conditions is "banked" in the reservoir and remains available for future use.

Operating Strategy and Business Plan

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

Goals and Goal Analyses

The following goals are included in the Geothermal Business Plan. The proposed FY 2020 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 Personnel Development and Training
- 5) Achieve a Geothermal Facility Availability of >99% in FY 2020
- 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 776,885 net MWhrs in FY 2020

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.

Future Operating Strategies

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

Combustion Turbine Facilities

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

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

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

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

Combustion Turbine Project Business Plan

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

Safety

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

Environmental Compliance

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

Reliability/Efficiency

- Availability
 - o STIG/LEC >89.09%
 - o CT1>91.54%
- Forced Outage Rate
 - o LEC <6.36%
 - o CT1/STIG<10%
- Identify areas to improve efficiency or reduce parasitic load

Continuous Improvement

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

Continued Future Operating Strategies

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

Legislative & Regulatory

FY 2020 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 2018 Budget Framed by NCPA's Legislative & Regulatory Affairs Program's Strategic Goals

In November 2018, the NCPA Legislative and Regulatory Affairs Committee approved its Strategic Plan for the 2019 calendar year. The plan delineates several goals that shape the focus of our Legislative and Regulatory Affairs program activities, and frames our budget development process for FY 2020. 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.

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.

Power Management

FY 2020 Budget and Business Plan

ORGANIZATIONAL STRUCTURE

The Power Management Business Unit is organized into five functional areas, with a supervisor or manager assigned responsibility for each functional area, and for budget purposes, consists of two programs and four subprograms as follows: Program 1) System Control and Load Dispatch; Program 2) Power Management Program and Sub Programs; i) Administration; ii) Forecasting, Portfolio/Pool Energy Management and Scheduling; ii) Contracts, Interconnection Services and External Affairs; and iv) Industry Restructuring and Regulatory Affairs. There are currently 25 full time staff positions filled within the Power Management Business Unit, reflecting no change from last year.

The Power Management Business Unit, for program budget purposes, is supported by efforts that are independently budgeted and managed through the Administrative Services Business Unit. That support is included as line item charges in the SCALD Program, line item charges in the Pooling, Forecasting and Portfolio Management Subprogram, and as direct charges under the Settlements and Energy Risk Management subprograms. Details regarding this support can be found under the Business Unit tab of the annual budget – under Administrative Services Budget and Business Plan.

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

Business Unit Goals for Fiscal Year 2020 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. SB350 Based reporting capability
 - Load/Resource/RPS/GHG/RA balance summaries
 - Development of short/long term procurement plans
 - Risk assessments
 - o 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
- 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
 - 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, GHG Accounting, 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/MRTU market world
 - a. Implement MRTU 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)

Administrative Services

FY 2020 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.

<u>Goals</u>

- 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 40 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:

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 sixteen (16) 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 crossfunctional 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 bookouts 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.

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

GEOTHERMAL FEATURES

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

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

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

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

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

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

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

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

SITE BUILDING & WAREHOUSE FACILITY - Cobb Mountain, CA

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

COMBUSTION TURBINE NO. 1 FEATURES

ALAMEDA - Two 24.8 MW Nameplate Units

LODI - One 24.8 MW Nameplate Unit

SITE BUILDING & WAREHOUSE FACILITY - Lodi, CA

COMBUSTION TURBINE NO. 2 (STIG) FEATURES

LODI - One 49.9 MW Nameplate Unit

SITE BUILDING & WAREHOUSE FACILITY - Lodi, CA

LODI ENERGY CENTER (LEC) FEATURES

LODI - One 296.0 MW Nameplate Unit

SITE BUILDING & WAREHOUSE FACILITY - Lodi, CA

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

	Hydro Project	Geothermal	CT No.1	CT No.2	LEC	Gen Svcs Shared	Proposed FY 2020	Budget FY 2019	Increase/ (Decrease)
Routine O&M Costs	Појесс	GCOGICIIIai	110.1	110.2	LLC	Sharea	11 2020	11 2015	(Decrease)
Variable	-	910,000	24,275	130,426	5,381,629	_	6,446,330	5,731,092	715,238
Fixed	1,490,500	4,515,000	814,624	477,166	2,646,090	76,401	10,019,781	9,892,684	127,097
Cloud Seeding / Steam Royalties*	290,000	1,431,000	-	-	-	-	1,721,000	1,701,000	20,000
Administration	156,393	468,000	44,064	49,453	209,845	50,500	978,255	938,109	40,146
Mandatory Costs	1,649,500	327,000	190,157	77,550	304,750	· -	2,548,957	2,418,880	130,077
Inventory	-	-	45,000	15,000	-	-	60,000	435,000	(375,000)
Transmission O&M	369,000	85,000	-	-	-	-	454,000	354,000	100,000
Routine O&M Costs w/o Labor	3,955,393	7,736,000	1,118,120	749,595	8,542,314	126,901	22,228,323	21,470,765	757,558
Labor	5,220,337	10,719,924	1,149,968	845,892	5,558,310	1,227,032	24,721,463	23,430,481	1,290,982
Total Routine O&M Costs	9,175,730	18,455,924	2,268,088	1,595,487	14,100,624	1,353,933	46,949,786	44,901,246	2,048,540
Other Costs									
Fuel and Pipeline Transport Charges*	175,000	-	975,299	1,089,118	39,513,147	-	41,752,564	34,616,861	7,135,703
CA ISO Charges*	3,464,701	624,704	69,300	53,138	883,969	-	5,095,812	3,648,248	1,447,564
CA ISO Energy Purchases*	-	-	-	-	3,826,263	-	3,826,263	5,113,848	(1,287,585)
Debt Service	33,306,862	4,945,723	-	5,796,421	26,054,428	-	70,103,434	71,890,280	(1,786,846)
Other Costs	1,029,864	3,682,610	131,305	90,637	803,440	63,249	5,801,105	5,701,333	99,772
Generation Services Shared	313,623	637,707	72,600	53,469		(1,417,182)	-	-	-
Administrative & General	1,833,321	3,319,343	542,938	341,953	2,105,792	-	8,143,347	8,595,414	(452,067)
Power Management Allocated Costs	-	-	-	-	1,439,156	-	1,439,156	1,446,134	(6,978)
Total O&M Costs	49,299,101	31,666,011	4,059,530	9,020,223	89,066,602	-	183,111,467	175,913,364	7,198,103
Projects									
Operations & Maintenance	260,000	550,000	810,000	68,250	920,683	-	2,608,933	1,451,900	1,157,033
General & Plant	60,000	-	-	-	-	-	60,000	80,000	(20,000)
Capital	-	465,000	-	-	2,915,858	-	3,380,858	625,000	2,755,858
Maintenance Reserve	-	2,630,000	1,300,000	349,936	1,496,174	-	5,776,110	7,547,949	(1,771,839)
Capital Development Reserve	4,455,000	-	-	-	-	-	4,455,000	1,175,000	3,280,000
Total Projects Costs	4,775,000	3,645,000	2,110,000	418,186	5,332,715	-	16,280,901	10,879,849	5,401,052
Annual Budget Cost	54,074,101	35,311,011	6,169,530	9,438,409	94,399,317	-	199,392,368	186,793,213	12,599,155
Less: Third Party Revenues									
ISO Energy Sales	23,455,277	29,480,578	1,266,004	819,302	72,602,551	-	127,623,712	100,456,289	27,167,423
Ancillary Services Sales	2,539,212	-	-	-	1,432,533	-	3,971,745	4,076,200	(104,455)
Transmission Sales	-	110,376	-	-	-	-	110,376	110,376	-
Effluent Revenues	-	750,000	-	-	-	-	750,000	700,000	50,000
Fuel and Pipeline Transport Credits	-	-	-	1,687,279	-	-	1,687,279	989,951	697,328
Interest Income	669,988	382,165	-	108,662	385,845	-	1,546,660	1,546,660	-
Other Income	-	2,500	-	-	-	-	2,500	-	2,500
	26,664,477	30,725,619	1,266,004	2,615,243	74,420,929	-	135,692,272	107,879,476	27,812,796
Net Annual Budget Cost to Participants	27,409,624	4,585,392	4,903,526	6,823,166	19,978,388	-	63,700,096	78,913,737	(15,213,641)

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

	Hydro		CT	СТ		Gen Svcs	Proposed	Budget	Increase/
	Project	Geothermal	No.1	No.2	LEC	Shared	FY 2020	FY 2019	(Decrease)
- · · - ·									
Plant Cost	51,099,153	35,218,533	6,169,530	9,438,409	94,399,317	-	196,324,942	183,683,872	12,641,070
Plant Transmission Cost	2,974,948	92,478	-	-	-	-	3,067,426	3,109,341	(41,915)
	54,074,101	35,311,011	6,169,530	9,438,409	94,399,317	-	199,392,368	186,793,213	12,599,155
Variable Costs*	3,464,701	2,965,704	1,041,572	549,103	49,605,008	-	57,626,088	49,722,144	7,903,944
Fixed Costs	50,609,400	32,345,307	5,127,958	8,889,306	44,794,309	-	141,766,280	137,071,069	4,695,211
	54,074,101	35,311,011	6,169,530	9,438,409	94,399,317	-	199,392,368	186,793,213	12,599,155
Net Annual Generation (Mwh)	508,897	776,885	13,042	9,206	1,599,464	-	2,907,494	2,571,661	335,833

Hydroelectric Project No. One

FY 2020 Specific Assumptions and Rationale

General

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

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

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

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

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

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

Operations & Maintenance

Generation – Actual generation may vary subject to operating criteria approved by the Commission during the year, water year hydrology, and actual reservoir capacity available. As of December 31, 2018, New Spicer Reservoir contained approximately 76,687 acre feet of storage, which is slightly lower than the average storage of 79,372 acre feet since 1990. Some storage is typically recommended to be carried over from year to year and held in reserve to mitigate future dry years.

Maintenance/Capital Development Reserve

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

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

During FY 2002 the Agency recovered from insurers approximately \$2.25 million (net of FEMA reimbursement) in connection with the 1997 flood and Darby fire. These funds are being retained in a Capital Development Reserve account pending the future clean out of the McKays Dam Reservoir. Permit acquisition and 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 fund Collierville Generator Rewinds beginning in FY 2019 and sediment removal from Beaver Creek Diversion Dam on an as-needed basis. No Capital Development Reserve funds were spent during FY 2018. At the end of FY 2018, the Initial Facilities Account and Capital Development Reserve account had an approximate total combined balance of \$20.912 million, with an additional \$1,175,000 scheduled for collection in FY 2019. An additional \$4,455,000 is proposed for collection in FY 2020. The total cost to clean out the McKays Dam Reservoir and to rewind the two Collierville generators is anticipated to exceed \$31,000,000. It cost approximately \$2,200,000 in 2017 to remove sediment that had accumulated in Beaver Creek Diversion Dam since 2008, primarily due to the large volume of sediment that was mobilized by the strong storms in early 2017. The Agency received \$1.27 million in insurance proceeds and is actively seeking an additional recovery from FEMA.

Project Asset

In addition to the proposed \$4,455,000 contribution to the Capital Development Reserve account, the Hydro FY 2020 budget proposes replacement of one O&M vehicle (utility truck). The Hydro FY 2020 budget also proposes \$260,000 in Operation and Maintenance Projects, including a dam safety study, SCADA upgrade, and a business network infrastructure improvement project.

				Proposed	
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Routine O&M Costs					
Fixed	\$1,397,000	\$1,341,693	\$1,457,000	\$1,490,500	\$33,500
Cloud Seeding	255,000	259,504	270,000	290,000	20,000
Administration	188,600	151,522	162,100	156,393	(5,707)
Mandatory Costs	1,539,500	1,418,573	1,563,000	1,649,500	86,500
Transmission O & M	259,000	306,020	269,000	369,000	100,000
Routine O&M Costs w/o Labor	3,639,100	3,477,312	3,721,100	3,955,393	234,293
Labor	4,651,237	4,391,747	4,913,827	5,220,337	306,510
Total Routine O&M Costs	8,290,337	7,869,059	8,634,927	9,175,730	540,803
Other Costs					
Water for Power	175,000	72,468	50,000	175,000	125,000
CA ISO Charges (variable)	1,680,181	3,092,988	2,801,269	3,464,701	663,432
Debt Service	38,258,150	36,786,409	35,156,824	33,306,862	(1,849,962)
Other Costs	1,041,403	1,059,873	998,171	1,029,864	31,693
Generation Services Shared	320,241	237,964	342,698	313,623	(29,075)
Administrative & General	1,731,832	1,907,022	1,897,626	1,833,321	(64,305)
Total O&M Costs	51,497,144	51,025,783	49,881,515	49,299,101	(582,414)
Projects					
Operations & Maintenance	1,235,000	4,885,141	720,000	260,000	(460,000)
General & Plant	55,000	65,395	80,000	60,000	(20,000)
Capital Development Reserve	1,075,000	1,075,000	1,175,000	4,455,000	3,280,000
Total Projects Costs	2,365,000	6,025,536	1,975,000	4,775,000	2,800,000
Annual Budget Cost	53,862,144	57,051,319	51,856,515	54,074,101	2,217,586
Less: Third Party Revenues					
ISO Energy Sales	22,049,878	25,956,661	20,783,056	23,455,277	2,672,221
Ancillary Services Sales	2,222,123	3,338,978	3,047,569	2,539,212	(508,357)
Interest Income	244,403	479,521	669,988	669,988	0
Other Revenues	0	3,564,185	0	0	0
	24,516,404	33,339,345	24,500,613	26,664,477	2,163,864
Net Annual Budget Cost to Participants	\$29,345,740	\$23,711,974	\$27,355,902	\$27,409,624	\$53,722
Total Plant Budget Cost	\$50,617,765	\$53,874,743	\$48,840,503	\$51,099,153	\$2,258,650
Total Transmission Budget Cost	3,244,379	3,176,576	3,016,012	2,974,948	(41,064)
	\$53,862,144	\$57,051,319	\$51,856,515	\$54,074,101	\$2,217,586
Variable Costs	\$1,680,181	\$3,092,988	\$2,801,269	\$3,464,701	\$663,432
Fixed Costs	52,181,963	53,958,331	49,055,246	50,609,400	1,554,154
	\$53,862,144	\$57,051,319	\$51,856,515	\$54,074,101	\$2,217,586
Net Annual Generation (MWh)	522,655	487,077	506,307	508,897	2,590
Net Annual Budget Costs per MWh	\$56	\$49	\$54	\$54	(\$0)
Variable Costs per MWh	\$3	\$6	\$6	\$7	\$1
Fixed Costs per KW Month	\$17	\$18	\$16	\$17	\$1

Northern California Power Agency Hydroelectric Project No. One Projects Detail

			Current FY 2019	Proposed FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029
Project	Notes	Total											
Operations & Maintenance (O&M)													
11563 Part 12 Study	М	n/a	\$ - :	\$ - 9	-	\$ 125,000	-	\$ - \$	-	\$ -	\$ 125,000	\$ - \$	-
Paint CV Crane & Bridge	M	370,000	120,000	-	-	-	-	-	-	250,000	-	-	-
CV Tunnel ROV	D	250,000	250,000	-	-	-	-	-	-	-	-	-	-
CSSP Cyber Monitoring System	D	100,000	100,000	-	-	-	-	-	-	-	-	-	-
Paint MPDD Crane	D	125,000	125,000	-	-	-	-	-	-	-	-	-	-
CV TWD Blower Upgrade	D	125,000	125,000	-	-	-	-	-	-	-	-	-	-
SCADA Upgrade	D	100,000	-	100,000	-	-	-	-	-	-	-	-	-
CV Tunnel Intake Transfer Trip	D	100,000	-	-	100,000	-	-	-	-	-	-	-	-
CV Units Beckwith Generator Protection	D	35,000	-	-	-	35,000	-	-	-	-	-	-	-
CV Turbine Instrumentation Upgrade	D	50,000	-	-	50,000	-	-	-	-	-	-	-	-
CV Guide Bearing Conversion	D	750,000	-	-	250,000	250,000	250,000	-	-	-	-	-	-
Union Slide Gate Replacement	M	n/a	-	-	-	-	350,000	-	-	-	-	-	-
2409 Part 12 Study	M	n/a	-	150,000	-	-	-	-	175,000	-	-	-	-
Infrastructure Improvement	M	n/a	-	10,000	-	-	-	-	-	-	-	-	-
Unidentified Projects	A, D	n/a	-	-	750,000	850,000	1,000,000	1,000,000	750,000	1,000,000	1,000,000	1,000,000	1,000,000
Total O&M Funding Requirements		\$ 2,005,000	\$ 720,000	\$ 260,000	1,150,000	\$ 1,260,000	\$ 1,600,000	\$ 1,000,000 \$	925,000	\$ 1,250,000	\$ 1,125,000	\$ 1,000,000 \$	1,000,000

			Current FY 2019	I	Proposed FY 2020	Foreca FY 20		Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026		Forecast FY 2027	Forecast FY 2028	Forecast FY 2029
Project	Notes	Total														
General & Plant																
Vehicle Replacement	D	n/a	\$ 80,00	00 \$	60,000	\$ 60	0,000	\$ 60,000	\$ 60,000	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -
Spicer Snow Cat Building	D	200,000	-		-		-	-	200,000	-	-	-		-	-	-
Microwave Radio Replacement	D	1,000,000	-		-	500	0,000	500,000	-	-	-	-		-	-	-
Snow Cat	D	150,000	-		-	150	0,000	-	-	-	-	-		-	-	-
Unidentified Projects	A, D	n/a	-		-	250	0,000	850,000	750,000	750,000	750,000	750,000)	750,000	750,000	750,000
Total General & Plant Funding Requirements		\$ 1,350,000	\$ 80,00	00 \$	60,000	\$ 960	0,000	\$ 1,410,000	\$ 1,010,000	\$ 750,000	\$ 750,000	\$ 750,000	\$	750,000	\$ 750,000	\$ 750,000

Notes:

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

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

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

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

	Notes	Total	Current Budget FY 2019	Proposed FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029
RESERVE FUNDING REQUIREMENTS													
McKay's Reservoir & Dam Betterment (Clean Out)	M, CR \$	17,000,000	\$ 750,000	3,000,000 \$	4,250,000 \$	4,500,000 \$	4,500,000 \$	- \$	- \$	- \$	- \$	- \$	-
Generator Rewind	M, CR	1,630,000	300,000	1,330,000	-	-	-	-	-	-	-	-	-
FERC Relicensing	M, CR	-	-	-	- TE	3D	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		20,005,000	1,175,000	4,455,000	4,375,000	4,625,000	4,625,000	125,000	125,000	125,000	125,000	125,000	125,000
Funding From Settlements (non-GES, see SR: 239:	:18)**		1,052,176										
McKay's Reservoir & Dam Betterment (Clean Out)	-	(31,758,317)	(700,000)	(450,000)	(350,000)	(200,000)	(30,058,317)	_	_	_	_	_	_
Generator Rewind		(6,407,609)	(4,407,000)	(2,000,609)	-	-	-	-	-	-	-	-	-
Beaver Creek Dredging		(2,010,097)	-	-	-	-	-	(550,000)		-	-	-	(1,460,097)
Total Reserve Disbursements	_	(40,176,023)	(5,107,000)	(2,450,609)	(350,000)	(200,000)	(30,058,317)	(550,000)	-	-	-	-	(1,460,097)
Estimated Capital Development Reserve Net Ending	g Balance		\$ 18,032,404	20,036,795 \$	24,061,795 \$	28,486,795 \$	3,053,478 \$	2,628,478 \$	2,753,478 \$	2,878,478 \$	3,003,478 \$	3,128,478	1,793,381

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

Total Reserve Balance at 6/30/18

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

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

\$ 20,912,228

^{*} 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 2008-2018

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	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	14,758,317
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	4,777,609
Beaver Creak Dredging	-	-	-	324,597	-	-	-	300,000	125,000	125,000	125,000	999,597
Interest Earned	357,832	159,612	32,912	60,944	77,036	70,724	57,425	101,240	176,589	215,082	199,126	1,508,522
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	22,221,955
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)
Total Disbursements	(507,848)	(190,019)	(477,152)	(34,798)	(99,910)	-	-	-	-	-	-	(1,309,727)
_												
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	20,912,228
							•					
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	20,912,228

^{*} Details regarding construction disbursements can be found in NCPA staff reports 130:3, 134:6, and 150:7.

Northern California Power Agency Hydroelectric Project No. One Maintenance Reserve Budget FY 2020

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.

	Beginning											
Funding/(Expenditures)	Balance	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Authorized Contingency Balance	\$250,000											
Reserve Activity												
Contingent maint. Annual Funding Req. *	250,000	-	-	-	-	-	-	-	-	-	-	-
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 2020

-					•					T	
	Allocated	Total	Alamada	Healdsburg	l a di		Dala Alta	Plumas-Sierra	Roseville	SVP	Ukiah
ALLOCATION PERCENTAGE	by S:	Total	Alameda	Healdsburg	Lodi	Lompoc	Palo Alto	Piumas-Sierra	Roseville	SVP	UKIAN
Generation Entitlement Share		100.0000%	10.0000%	1.6600%	10.3700%	2.3000%	22.9200%	1.6900%	12.0000%	37.0200%	2.0400%
Generation Entitlement Share	GES	100.0000 /6	10.0000 /0	1.0000 /0	10.370076	2.3000 /6	22.9200 /0	1.0900 /0	12.0000 /6	37.020076	2.0400 /0
PROJECTED MWH		508,897	50,890	8,448	52,773	11,705	116,639	8,600	61,068	188,394	10,381
PROJECT COSTS:											
Routine O&M:											
Fixed costs	GES	\$ 1,490,500	\$ 149,050		, , , , , , , ,	. ,	. ,		. ,		. ,
Cloud Seeding	GES	290,000	29,000	4,814	30,073	6,670	66,468	4,901	34,800	107,358	5,916
Administration	GES	156,393	15,639	2,596	16,218	3,597	35,845	2,643	18,767	57,897	3,190
Mandatory costs	GES	1,649,500	164,950	27,382	171,053	37,939	378,065	27,877	197,940	610,645	33,650
Transmission O&M	GES	369,000	36,900	6,125	38,265	8,487	84,575	6,236	44,280	136,604	7,528
Labor	GES	5,220,337	522,034	86,658	541,349	120,068	1,196,501	88,224	626,440	1,932,569	106,495
Other Costs:											
Water for Power	GES	175,000	17,500	2,905	18,148	4,025	40,110	2,958	21,000	64,785	3,570
CAISO charges	Note A	3,464,701	348,106	57,784	360,986	80,064	797,859	58,829	180,302	1,509,757	71,014
Debt service	Note B	33,306,862	3,464,890	412,084	3,593,091	796,925	7,941,527	585,566	2,978,922	12,827,021	706,837
Other costs	GES	1,029,864	102,986	17,096	106,797	23,687	236,045	17,405	123,584	381,256	21,009
Generation Services Shared	GES	313,623	31,362	5,206	32,523	7,213	71,882	5,300	37,635	116,103	6,398
Administrative & General	GES	1,833,321	183,332	30,433	190,115	42,166	420,197	30,983	219,999	678,695	37,400
Projects:											
O&M	GES	260,000	26,000	4,316	26,962	5,980	59,592	4,394	31,200	96,252	5,304
General Plant	GES	60,000	6,000	996	6,222	1,380	13,752	1,014	7,200	22,212	1,224
Capital Development Reserve	GES	4,455,000	445,500	73,953	461,984	102,465	1,021,086	75,290	534,600	1,649,241	90,882
Total Project Costs	GES	54,074,101	5,543,249	757,090	5,748,350	1,274,947	12,705,128	936,808	5,235,528	20,742,178	1,130,823
	0_0	0 1,01 1,101	0,010,210	,	0,1.10,000	.,,	.2,. 00,.20	000,000	0,200,020	20,1 12,110	.,.00,020
Project Revenues											
ISO Energy sales		23,455,277	2,347,800	389,734	2,434,670	539,997	5,381,160	396,780	2,724,454	8,761,731	478,951
Ancillary services sales	Note C	2,539,212	226,625	37,619	235,010	52,124	519,425	38,299	389,588	994,290	46,232
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		26,664,477	2,641,424	438,475	2,739,158	607,531	6,054,146	446,402	3,194,441	10,004,051	538,851
 			,,,,,,,	,	_,,,,,,,,,,		-,,	,	2,121,111	, ,	
Annual Project Costs, net		\$ 27,409,624	\$ 2,901,826		, -,, -	\$ 667,416	\$ 6,650,981	\$ 490,406	\$ 2,041,088	\$ 10,738,127	\$ 591,972
Estimated price per Mwh		\$ 53.86	\$ 57.02	\$ 37.72	\$ 57.02	\$ 57.02	\$ 57.02	\$ 57.02	\$ 33.42	\$ 57.00	\$ 57.02
FY 2019 Net Annual Project C	osts	\$ 27,355,902	\$ 2,897,169	\$ 318,191	\$ 3,004,365	\$ 666,349	\$ 6,640,312	\$ 489,622	\$ 2,233,999	\$ 10,514,873	\$ 591,022
Net Project Cost Increase		\$ 53,722	\$ 4,657	\$ 424	\$ 4,827	\$ 1,067	\$ 10,669	\$ 784	\$ (192,911)	\$ 223,254	\$ 950
Net i roject dost mercase		0.20%	ψ 4,037 0.16%	0.13%		ψ 1,007 0.16%	0.16%		-8.64%	ψ 223,234 2.12%	
		0.20 /6	0.1076	0.1370	0.1076	0.1076	0.1076	0.1070	-0.04 /0	2.12/0	0.1076
Summary of Variable and Fixe	d Project	Costs:									
Variable Costs	a . 10,000	\$ 3,464,701	\$ 348,106	\$ 57,784	\$ 360,986	\$ 80,064	\$ 797,859	\$ 58,829	\$ 180 302	\$ 1,509,757	\$ 71,014
Fixed Costs		50,609,400	5,195,143	699.306	5,387,364	1,194,883	11,907,269	877,979	5,055,226	19,232,421	1,059,809
1 1/04 00313		\$ 54,074,101	\$ 5,543,249	\$ 757,090	\$ 5,748,350	\$ 1,274,947	\$ 12,705,128		\$ 5,235,528	\$ 20,742,178	\$ 1,130,823
		Ψ υπ,υ14, 101	Ψ 0,0+0,249	ψ 131,030	Ψ 0,140,000	Ψ 1,214,341	ψ 12,100,120	ψ 200,000	Ψ 0,200,020	ψ ΔU,1 4Δ,110	ψ 1,130,023

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

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

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

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

Geothermal Project

FY 2020 Specific Assumptions and Rationale

<u>General</u>

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 56.1 MWG beginning in FY 2020, based on current steamfield conditions. Reservoir decline of 2% is expected during the year, which will lower output by 0.7 MW by the end of the 2020 fiscal year.

Geothermal Plant No. Two is projected to operate at an initial capacity of 42 MWG beginning in FY 2020, with average generation declining about 1 MW during the fiscal year.

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

	Plant No. One	Plant No. Two
Plant Energy		
(Operating capability – both units – initial for fiscal year)	56.1 MWG	42 MWG
Capacity Factor (units 1, 2 & 4, nameplate of 55 MW))	51.0%	76.4%
Availability Factor (both units, <1% forced outage rate)	99 %	99%
Nominal Steam Rate @ Gross (both units)	16.9 lbs/kWh	17.5 lbs/kWh
Unit Overhauls or Outages (scheduled)	Unit 1 – 72 hours	Unit 3 – Out of Service
	Unit 2 – 72 hours	Unit $4 - 72$ hours,
Total Net Generation Forecasted (takes into account 8.3 MW house load)	437,342 MWhr net	339,543 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 1.7 MW during the fiscal year. The GEO Steam Field continues to operate under the Commission approved Two Zone Protocol. These federal leases provide for the payment of royalties to the Mineral Management Service (MMS) amounting to 10.0% of the value of steam produced from the wells. The value of steam is based on 36% of a replacement valuation methodology utilizing NCPA/SVP weighted average arms length contract purchase prices. MMS approved this methodology commencing in January 2001 and royalty payments are estimated at about \$2.25 per MWh, net.

Capital Asset Acquisitions, Replacements & Betterments

FY 2020 O&M, Capital, and Maintenance Reserve Projects totaling \$3,645,000 include:

<u>Project</u>	<u>Amount</u>	
Plant #1 Fire Modernization (O&M)	\$100,000	
Plant #1 MCC Breakers (O&M)	\$100,000	
Plant #1 and #2 Door Replacements (O&M)	\$150,000	
Emergency Shower and Eyewash Stations (O&M)	\$200,000	
Vehicle Replacements (Capital)	\$265,000	
Plant #2 Steam Ejector Upgrade (Capital)	\$200,000	
P-Site Well Workover Program (Maintenance Reserve)*	\$2,630,000	
Total	\$3,645,000	
*Actual cost is \$3,000,000. Difference to come from FY 2019 F	unding Settlements	

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

				Proposed	
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Routine O&M Costs					(/
Variable	\$912,000	\$888,179	\$932,000	\$910,000	(\$22,000)
Fixed	3,814,098	4,224,933	4,016,700	4,515,000	498,300
Steam Royalties (variable)	1,818,000	1,386,838	1,431,000	1,431,000	0
Administration	458,000	412,461	419,000	468,000	49,000
Mandatory Costs	328,500	319,465	327,000	327,000	0
Inventory	375,000	273,700	375,000	0	(375,000)
Transmission O & M	89,819	48,609	85,000	85,000	(3/3/000)
Routine O&M Costs w/o Labor	7,795,417	7,554,185	7,585,700	7,736,000	150,300
Labor	9,769,062	9,292,031	10,207,255	10,719,924	512,669
Total Routine O&M Costs	17,564,479	16,846,216	17,792,955	18,455,924	662,969
Total Notific Oct 1 costs	27/50 1/ 175	20/010/220	27,752,555	10/100/521	002,505
Other Costs					
Debt Service	4,935,743	4,935,743	4,936,896	4,945,723	8,827
CA ISO Charges (variable)	317,188	656,808	291,380	624,704	333,324
Other Costs	3,783,170	3,560,738	3,677,465	3,682,610	5,145
Generation Services Shared	696,078	513,900	696,831	637,707	(59,124)
Administrative & General	3,383,348	3,121,653	3,763,042	3,319,343	(443,699)
Total O&M Costs	30,680,006	29,635,058	31,158,569	31,666,011	507,442
10441 0411 0050	50,000,000	25/055/050	52/250/505	52/000/022	307,112
Projects					
Operations & Maintenance	800,000	556,955	55,000	550,000	495,000
Capital	640,000	491,563	525,000	465,000	(60,000)
Maintenance Reserve	0	0	2,686,842	2,630,000	(56,842)
Total Projects Costs	1,440,000	1,048,518	3,266,842	3,645,000	378,158
Annual Budget Cost	32,120,006	30,683,576	34,425,411	35,311,011	885,600
Less: Third Party Revenues					
ISO Energy Sales	28,349,215	26,848,397	26,284,634	29,480,578	3,195,944
Interest Income	147,521	252,826	382,165	382,165	0
Transmission Sales	110,376	110,376	110,376	110,376	0
Effluent Revenue	700,000	1,679,505	700,000	750,000	50,000
Other Income	2,500	23,439	0	2,500	2,500
	29,309,612	28,914,543	27,477,175	30,725,619	3,248,444
Net Annual Budget Cost to Participants	\$2,810,394	\$1,769,033	\$6,948,236	\$4,585,392	(\$2,362,844)
Total Plant Budget Cost	\$32,021,611	\$30,626,585	\$34,332,082	\$35,218,533	\$886,451
Total Transmission Budget Cost	98,395	56,991	93,329	92,478	(851)
	\$32,120,006	\$30,683,576	\$34,425,411	\$35,311,011	\$885,600
Tatal Variable Costs	#2.047.100	#2 021 02E	±2.654.200	#2 OCE 704	4211 224
Total Variable Costs	\$3,047,188	\$2,931,825	\$2,654,380	\$2,965,704	\$311,324
Total Fixed Costs	29,072,818	27,751,751	31,771,031	32,345,307	574,276
	\$32,120,006	\$30,683,576	\$34,425,411	\$35,311,011	\$885,600
Net Annual Generation (MWh)	817,701	782,447	748,471	776,885	28,414
Net Annual Budget Costs per MWh	\$3	\$2	\$9	*6	(\$3)
Variable Costs per MWh	\$3 \$4	\$2 \$4	\$9 \$4	\$6 \$4	(\$3)
Fixed Costs per KW Month	\$ 1 \$25	\$ 1 \$24	\$ 1 \$28	\$28	0
Tixeu Costs per NW Month	\$25	\$24	\$28	\$28	U

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

			FY 2019		roposed FY 2020		recast / 2021		recast / 2022	Forecast FY 2023	Forecast FY 2024		orecast Y 2025	Forecast FY 2026	orecast Y 2027		recast / 2028	Forecast FY 2029
Project	Notes	Total	Budget		Budget													
Operations & Maintenance (O&M)																		
Plant #1 Fire System Modernization	D	\$ 1,700,000	5	- \$	100,000	\$	800,000	\$	800,000	\$ -	\$ -	\$	-	\$ - :	\$ - 5	\$	-	\$ -
Field and Effluent Management System Upgra	a D	1,000,000		-	-		200,000		800,000	-	-		-	-	-		-	-
Plant #2 GSU Transformer	D	100,000		-	-		100,000		-	-	-		-	-	-		-	-
Plant #1 MCC Breakers	D	200,000		-	100,000		100,000		-	-	-		-	-	-		-	-
Plant #1 & #2 Door Replacements	D	300,000		-	150,000		150,000		-	-	-		-	-	-		-	-
Facility Upgrade	D	375,000		-	-		75,000		300,000	-	-		-	-	-		-	-
Emergency Shower & Eyewash Stations	M	200,000		-	200,000		-		-	-	-		-	-	-		-	-
CSSP Cyber Monitoring System	D	55,000	55,00	0	-		-		-	-	-		-	-	-		-	-
Plant, Yard & Road Repairs	D	2,250,000		-	-		250,000		250,000	250,000	250,000		250,000	250,000	250,000		250,000	250,000
Plant #2 Diesel Tank	M	600,000		-	-		100,000		450,000	50,000	-		-	-	-		-	-
Network Infrastructure Improvement	D	68,000		-	-		68,000		-	-	-		-	-	-		-	-
Undefined Projects	D/M	6,800,000		-	-		600,000	1,	,000,000	600,000	600,000	•	1,200,000	600,000	600,000	1	,000,000	600,000
Total O&M Projects Funding Requirement		\$ 13,648,000	55,00	0 \$	550,000	\$ 2	,443,000	\$ 3,	,600,000	\$ 900,000	\$ 850,000	\$ 1	1,450,000	\$ 850,000	\$ 850,000	\$ 1	,250,000	\$ 850,000

D Discretionary

Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K
The above Q&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.

				Proposed FY 2019	I	Proposed FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	orecast Y 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	orecast Y 2029
Project	Notes	;	Total	Budget		Budget									
Capital															
Vehicle Replacements	D	\$	2,130,000	\$	- \$	265,000	\$ 265,000	\$ 200,000	\$ 200,000	\$ 200,000 \$	200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
Plant 1 Steam Ejector Upgrade	D		275,000	275,0	00	-	-	-	-	-	-	-	-	-	-
Plant 2 Steam Ejector Upgrade	D		200,000		-	200,000	-	-	-	-	-	-	-	-	-
Ball Cleaning System Upgrade	D		600,000	250,0	00	-	350,000	-	-	-	-	-	-	-	<u> </u>
Total Capital Projects Funding Requirement		\$	3,205,000	\$ 525,0	00 \$	465,000	\$ 615,000	\$ 200,000	\$ 200,000	\$ 200,000 \$	200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000

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 2020

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.

	Beginning											
Funding/(Expenditures)	Balance	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Reserve Activity												
Jnit One Overhaul		(1,300,000)						(2,500,000)				
Jnit Two Overhaul		(1,600,000)						(3,000,000)				
Jnit Four Overhaul					(2,000,000)						(2,500,000)	
Vell Replacement/Workover	3,963,158	(6,000,000)	(3,000,000)	(3,100,000)			(3,400,000)			(4,000,000)		
Contingent maintenance	2,250,000											
Projected Requirements		(8,900,000)	(3,000,000)	(3,100,000)	(2,000,000)	-	(3,400,000)	(5,500,000)	-	(4,000,000)	(2,500,000)	
Annual Funding Req*		2,686,842	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	2,630,000
Funding From Settlements**		1,799,734	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Balance	6,213,158	1,799,734	1,429,734	959,734	1,589,734	4,219,734	3,449,734	579,734	3,209,734	1,839,734	1,969,734	4,599,734
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

**Additional funding from FY18 settlements retained by NCPA for Well Replacement/Workover (December 2018)

Northern California Power Agency Geothermal Project Allocation of Project Budget FY 2020

	Allocated by	Total	Alameda	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Plumas-Sierra	Roseville	SVP	TID	Ukiah
ALLOCATION PERCENTAGES:		•	•			<u> </u>		•					-
Generation Entitlement Share	GES	100.0000%	16.8825%	0.2270%	0.3360%	3.6740%	10.2800%	3.6810%	0.7010%	7.8830%	44.3905%	6.3305%	5.6145%
Transmission - Plant 1 ²	Plant 1	100.0000%	33.0636%	0.00000/	0.7365%	7.1711%	32.1066%	7.2019%	1.5855%	7.1711%			10.9639%
Transmission - Plant 2 ²	Plant 2	100.0000%	28.4970%	0.6892%	0.5131%	6.2183%	9.1089%	6.2183%	1.0369%	18.9980%		19.2212%	9.4990%
PROJECTED MWH		776,885	131,158	1,764	2,610	28,543	79,864	28,597	5,446	61,242	344,863	49,181	43,618
PROJECT COSTS:													
Routine O&M: Variable costs	GES	\$ 910,000	\$ 153,631	\$ 2.066	\$ 3,058	\$ 33,433	\$ 93,548	\$ 33.497	\$ 6,379	\$ 71,735	\$ 403,954	\$ 57,608	\$ 51,092
Fixed costs	GES	4,515,000	762,245	10,249	15.170	165.881	464.142	166.197	31.650	355,917	2,004,231	285,822	253,495
Steam royalties	GES	1,431,000	241,589	3,248	4,808	52,575	147,107	52,675	10,031	112,806	635,228	90,589	80,343
Administration	GES	468.000	79.010	1.062	1.572	17.194	48.110	17.227	3.281	36.892	207.748	29.627	26.276
Mandatory costs	GES	327,000	55,206	742	1,099	12,014	33,616	12,037	2,292	25,777	145,157	20,701	18,359
Inventory	GES	· -	· -	-	-	-	-	-	-	-	· -	· -	-
Transmission O&M - Plant 1 2	Plant 1	50,000	16,532	-	368	3,586	16,053	3,601	793	3,586	-	-	5,482
Transmission O&M - Plant 2 2	Plant 2	35,000	9,974	241	180	2,176	3,188	2,176	363	6,649	-	6,727	3,325
Labor	GES	10,719,924	1,809,791	24,334	36,019	393,850	1,102,008	394,600	75,147	845,052	4,758,628	678,625	601,870
Other Costs:													
Debt service	GES	4,945,723	834,962	11,227	16,618	181,706	508,420	182,052	34,670	389,871	2,195,431	313,089	277,678
CAISO charges	GES	624,704	105,466	1,418	2,099	22,952	64,220	22,995	4,379	49,245	277,309	39,547	35,074
Other costs	GES	3,682,610	621,717	8,360	12,374	135,299	378,572	135,557	25,815	290,300	1,634,729	233,128	206,760
Generation Services Shared Administrative & General	GES GES	637,707 3,311,865	107,661 559,126	1,448 7,518	2,143 11,128	23,429 121,678	65,556 340,460	23,474 121,910	4,470 23,216	50,270 261,074	283,081 1,470,153	40,370 209,658	35,804 185,945
Transmission A&G - Plant 1 2	Plant 1	4,399	1,454	7,516	32	315	1,412	317	70	315	1,470,133	209,036	482
Transmission A&G - Plant 2 2	Plant 2	3,079	877	- 21	16	191	280	191	32	585	-	- 592	292
Projects:	riaiil Z	3,079	011	21	10	191	200	191	32	363	-	392	292
O&M	GES	550.000	92,854	1.249	1,848	20.207	56.540	20.246	3.856	43,357	244.148	34,818	30.880
Capital	GES	465,000	78,504	1,056	1,562	17,084	47,802	17,117	3,260	36,656	206,416	29,437	26,107
Maintenance Reserve	GES	2,630,000	444,010	5,970	8,837	96,626	270,364	96,810	18,436	207,323	1,167,470	166,492	147,661
Total Project Costs	GES	35,311,011	5,974,606	80,209	118,930	1,300,198	3,641,399	1,302,680	248,139	2,787,412	15,633,683	2,236,828	1,986,926
Project Revenues													
ISO Energy sales	GES	29,480,578	4,977,059	66,921	99,055	1,083,116	3,030,603	1,085,180	206,659	2,323,954	13,086,576	1,866,268	1,655,187
Transmission sales	GES	110,376	18,634	251	371	4,055	11,347	4,063	774	8,701	48,996	6,987	6,197
Effluent revenues	GES	750,000	126,619	1,703	2,520	27,555	77,100	27,608	5,258	59,123	332,929	47,479	42,109
Interest income	GES	382,165	64,519	868	1,284	14,041	39,287	14,067	2,679	30,126	169,645	24,193	21,457
Other Income	GES	2,500	422	6	8	92	257	92	18	197	1,110	158	140
Total Project Revenues		30,725,619	5,187,253	69,747	103,238	1,128,859	3,158,594	1,131,010	215,387	2,422,101	13,639,256	1,945,085	1,725,090
Annual Project Expense, net		\$ 4,585,392	\$ 787,354	\$ 10,461	\$ 15,692	\$ 171,339	\$ 482,806	\$ 171,670	\$ 32,753	\$ 365,312	\$ 1,994,427	\$ 291,743	\$ 261,836
Estimated price per Mwh		\$ 5.90	\$ 6.00	\$ 5.93	\$ 6.01	\$ 6.00	\$ 6.05	\$ 6.00	\$ 6.01	\$ 5.97	\$ 5.78	\$ 5.93	\$ 6.00
FY 2019 Net Annual Project Cos	ts	\$ 6,948,236	\$ 1,186,384	\$ 15,826	\$ 23,634	\$ 258,176	\$ 725,812	\$ 258,673	\$ 49,322	\$ 551,610	\$ 3,042,923	\$ 441,337	\$ 394,539
Net Project Revenue Decrease		\$ (2,362,844)	\$ (399,030)	\$ (5,365)	\$ (7,942)	\$ (86,837)	\$ (243,006)	\$ (87,003)	\$ (16,569)	\$ (186,298)	\$ (1,048,496)	\$ (149,594)	\$ (132,703)
,		-34.01%	-33.63%	-33.90%	-33.60%	-33.63%	-33.48%	-33.63%	-33.59%	-33.77%	-34.46%	-33.90%	-33.63%
Summary of Variable and Fixed I	Project Co		¢ 500.005	ф 0.700	¢ 0.005	¢ 400.000	e 204.074	¢ 400.400	e 00.700	ф 000 700	f 1 240 404	ф 407.744	ф 400 F00
Variable Costs		\$ 2,965,704	,			\$ 108,960	\$ 304,874		,		\$ 1,316,491		
Fixed Costs		32,345,307 \$ 35,311,011	5,473,921 \$ 5,974,606	73,476 \$ 80,209	108,966 \$ 118.930	1,191,238 \$ 1,300,198	3,336,525 \$ 3,641,399	1,193,512 \$ 1,302,680	227,350 \$ 248,139	2,553,626 \$ 2,787,412	14,317,192 \$ 15,633,683	2,049,085 \$ 2,236,828	1,820,416 \$ 1,986,926
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¹ Generation Entitlement Share (GES) is synonymous with commonly used terms of Project Entitlement Share, Project Percentage, Project Share, Third Phase Share.

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

Combustion Turbine No. One

FY 2020 Specific Assumptions and Rationale

General

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

Operations & Maintenance

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

Maintenance Reserve

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

- Deductible portion of an insured loss (currently \$500,000 or more depending on the type of loss);
- A contingency account of \$250,000 is being planned as operations of these units has significantly changed, causing consistent overruns in annual routine budget accounts;
- Unanticipated but Commission approved, cost overruns, extraordinary repairs and maintenance not budgeted in the maintenance expense accounts; and
- An additional maintenance reserve funding has been included to assist in levelizing the costs of major maintenance activities. The total Maintenance Reserve funding is \$1,300,000 for FY 2020.

Operations & Maintenance Project Costs

We are anticipating O&M projects totaling \$810,000 for FY 2020.

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

	EV 2010	F)/ 2010	EV 2010	Proposed	Budget
	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	FY 2020 Budget	Increase/ (Decrease)
Routine O & M Costs	Duaget	Actual	budget	Duaget	(Decrease)
Variable	\$10,261	\$22,912	\$10,948	\$24,275	\$13,327
Fixed	420,720	952,362	422,593	814,624	392,031
Administration	44,017	44,447	49,237	44,064	(5,173)
Mandatory Costs	159,921	185,180	154,344	190,157	35,813
Inventory Stock	45,000	0	45,000	45,000	0
Routine O & M Costs without Labor	679,919	1,204,901	682,122	1,118,120	435,998
Labor	840,018	1,067,625	878,043	1,149,968	271,925
Total Routine O & M Costs	1,519,937	2,272,526	1,560,165	2,268,088	707,923
Other Plant Costs					
Fuel & LDC Costs	109,345	1,024,855	472,620	947,997	475,377
Fuel Administrative Costs	63,084	51,844	24,715	27,302	2,587
CA ISO Charges (variable)	587	399,567	2,915	69,300	66,385
Insurance	113,442	90,817	105,685	110,905	5,220
Other Costs	0	0	20,440	20,400	(40)
Generation Services Shared	60,528	60,013	63,072	72,600	9,528
Administrative & General	340,009	464,747	391,089	542,938	151,849
Total O & M Costs	2,206,932	4,364,369	2,640,701	4,059,530	1,418,829
Projects					
Operations & Maintenance	20,000	22,313	2,065,000	810,000	(1,255,000)
Capital	221,620	197,524	0	0	0
Maintenance Reserve	750,000	750,000	3,400,000	1,300,000	(2,100,000)
Total Projects	991,620	969,837	5,465,000	2,110,000	(3,355,000)
Annual Budget Cost	3,198,552	5,334,206	8,105,701	6,169,530	(1,936,171)
Less: Third Party Revenue					
ISO Energy Sales	118,990	2,505,097	572,344	1,266,004	693,660
Other Income	0	15,644	0	0	0
	118,990	2,520,741	572,344	1,266,004	693,660
Net Annual Costs To Participants	\$3,079,562	\$2,813,465	\$7,533,357	\$4,903,526	(\$2,629,831)
Total Variable Costs	\$120,193	\$1,447,334	\$486,483	\$1,041,572	\$555,089
Total Fixed Costs	3,078,359	3,886,872	7,619,218	5,127,958	(2,491,260)
	\$3,198,552	\$5,334,206	\$8,105,701	\$6,169,530	(\$1,936,171)
Net Annual Generation (MWh)	1,514	15,149	7,532	13,042	5,510
Net Annual Budget Cost per MWh	\$2,034	\$186	\$1,000	\$376	(\$624)
Variable Costs per MWh	\$79	\$96	\$65	\$80	\$15
Fixed Costs per KW Month	\$3	\$4	\$8	\$6	(\$3)
					-45-

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

			FY 2019	Proposed FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029
Projects	Notes	Total	Budget										
Operations & Maintenance (O&M)													
Generator Circuit Breaker Upgrade	D	\$ 750,000	\$ -	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Switchyard Relay Upgrades	D	275,000	-	-	-	-	-	275,000	-	-	-	-	-
Pig Launching Station	D	500,000	-	-	500,000	-	-	-	-	-	-	-	-
MCC Upgrade	D	1,100,000	-	-	-	-	-	1,100,000	-	-	-	-	-
AVR/Excitation Upgrade	D	1,200,000	-	-	-	1,200,000	-	-	-	-	-	-	-
Electric Start/TG/Emissions Control	D	600,000	-	-	-	600,000	-	-	-	-	-	-	-
Control System	D	1,700,000	-	-	-	-	1,700,000	-	-	-	-	-	-
Generator Control Panel Interposing Relays	D	450,000	450,000	-	-	-	-	-	-	-	-	-	-
Lodi Turbine Compartment Maintenance	D	1,500,000	1,500,000	-	-	-	-	-	-	-	-	-	-
Batteries	D	70,000	70,000	-	-	-	-	-	-	-	-	-	-
CSSP Cyber Monitoring System	D	45,000	45,000	-	-	-	-	-	-	-	-	-	-
Vehicles	D	360,000	-	60,000	60,000	60,000	60,000	60,000	60,000	-	-	-	-
Gas Plants Shared Projects	D	1,350,000	-	-	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Total O&M Projects Funding Requirement		\$ 9,900,000	\$ 2,065,000	\$ 810,000	710,000	\$ 2,010,000	\$ 1,910,000	\$ 1,585,000	\$ 210,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000

Notes:

D Discretionary

M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K
The above Capital Projects listing serves as a planning & budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies and guidelines will be applied as costs are incurred

Northern California Power Agency Maintenance Reserves - Combustion Turbine No. One Budget FY 2020

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 in 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)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
· anamg/(=xponana.co)											
Beginning Reserve Balance	701,804	-	-	-	-	-	-	-	-	-	-
Combustion Turbine Lodi	(10,000)	(28,000)	(15,914)	(310,000)	(16,883)	(31,514)	(800,775)	-	(71,169)	(472,121)	(20,159)
Combustion Turbine ALA1	(3,205,804)	-	(120,000)	(29,705)	(40,000)	-	-	(87,637)	(993,637)	-	-
Combustion Turbine ALA2	· -	(28,000)	(45,000)	(2,850,000)	(40,000)	(31,514)	-	(52,167)	· -	(35,470)	(1,054,149)
Generators	-	(400,000)	(200,000)	-	-	-	-	-	(100,000)	(1,013,416)	-
Balance of Plant	(310,000)	-	(118,000)	-	-	-	-	(253,000)	-	-	-
Projected Requirements	(3,525,804)	(456,000)	(498,914)	(3,189,705)	(96,883)	(63,028)	(800,775)	(392,804)	(1,164,806)	(1,521,007)	(1,074,308)
Funding Requirement	3,400,000	1,300,000	1,300,000	1,300,000	700,000	714,000	728,280	742,846	757,703	772,857	788,314
Cumulative Balance	\$ 576,000 \$	1,420,000 \$	2,221,087 \$	331,381 \$	934,499 \$	1,585,470 \$	1,512,975 \$	1,863,017 \$	1,455,914 \$	707,765 \$	421,771

Northern California Power Agency Combustion Turbine No.1 Allocation of Project Budget FY 2020

	Allocated										
	by	Total	Alameda	Biggs	Gridley	Healdsburg	Lodi	Lompoc PI	lumas-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		13,042	2,846	26	46	761	1,747	761	237	5,434	1,186
DDO IDOT COOTO											
PROJECT COSTS: Routine O&M:											
Variable costs	GES	\$ 24,275	\$ 5,297	\$ 48 9	\$ 85	\$ 1,416	\$ 3,251 \$	1,416 \$	441 \$	10,115 \$	2,207
Fixed costs	GES	814,624	177,751	1,602	2,851	47,519	109,105	47,519 ψ	14,799	339,427	74,049
Administration	GES	44,064	9,615	87	154	2,570	5,902	2,570	801	18,360	4,005
Mandatory costs	GES	190,157	41,492	374	666	11,092	25,468	11,092	3,455	79,232	17,285
Inventory	GES	45,000	9,819	89	158	2.625	6,027	2,625	818	18,750	4,091
Labor	GES	1,149,968	250,923	2,262	4,025	67,081	154,019	67,081	20,891	479,154	104,532
Other Costs:											
Fuel and LDC costs	GES	947,997	206,853	1,865	3,318	55,300	126,968	55,300	17,222	394,999	86,173
Fuel administration costs	GES	27,302	5,957	54	96	1,593	3,657	1,593	496	11,376	2,482
CAISO charges	GES	69,300	15,121	136	243	4,042	9,282	4,042	1,259	28,875	6,299
Insurance	GES	110,905	24,199	218	388	6,469	14,854	6,469	2,015	46,210	10,081
Other costs	GES	20,400	4,451	40	71	1,190	2,732	1,190	371	8,500	1,854
Generation Services Shared	GES	72,600	15,841	143	254	4,235	9,724	4,235	1,319	30,250	6,599
Administrative & General	GES	542,938	118,469	1,068	1,900	31,671	72,717	31,671	9,864	226,224	49,353
Projects:	GES										
O&M Projects & Maintenance Reserve	GES	2,110,000	460,402	4,150	7,385	123,083	282,599	123,083	38,332	879,167	191,799
Total Project Costs	GES	6,169,530	1,346,191	12,135	21,593	359,887	826,304	359,887	112,082	2,570,640	560,810
Project Revenues											
CAISO Energy Sales	GES	1,266,004	276,242	2,503	4,424	73,835	169,558	73,835	22,998	527,518	115,091
Total Project Revenues	020	1,266,004	276,242	2,503	4,424	73,835	169,558	73,835	22,998	527,518	115,091
•		,,	-,	,	,	-,	,	-,	,	,-	
Annual Project Revenue, net		\$ 4,903,526									445,720
Estimated price per Mwh		\$ 375.98	\$ 375.98	\$ 375.47	\$ 376.13	\$ 376.00	\$ 375.98 \$	376.00 \$	375.98 \$	375.98 \$	375.97
FY 2019 Net Annual Project Costs		\$ 7,533,357	1,643,778	14,818	26,367	439,443	1,008,965	439,443	136,858	3,138,901	684,782
Net Project Cost Increase		\$ (2,629,831)	(573,829)	(5,186)	(9,197)	(153,391)	(352,219)	(153,391)	(47,775)	(1,095,780)	(239,063)
		-34.91%	-34.91%	-35.00%	-34.88%	-34.91%	-34.91%	-34.91%	-34.91%	-34.91%	-34.91%
Summary of Variable and Fixed Project Costs:											
Variable Costs.		1,041,572	227,271	2,049	3,646	60,758	139,501	60,758	18,922	433,989	94,679
Fixed Costs		5.127.958	1.118.920	10.087	17.948	299.129	686.803	299.129	93.160	2.136.651	466.131
I IVER COSIS		\$ 6,169,530									560,810
		ψ 0,108,330	ψ 1,040,191	ψ 12,130	رور, <u>۱</u>	ψ 339,001	ψ 020,30 4 ‡	5 339,007 \$	112,002 Φ	د,510,0 4 0 \$	300,010

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

Combustion Turbine No. Two

FY 2020 Specific Assumptions and Rationale

<u>General</u>

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

Operations & Maintenance

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

Maintenance Reserve

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

- Anticipated costs of estimated scheduled overhauls;
- Deductible portion of an insured loss (currently \$500,000 or more depending on the type of loss); and
- Unanticipated; but, Commission approved, cost overruns, extraordinary repairs and maintenance not budgeted in the maintenance expense accounts, and
- An additional maintenance reserve funding has been included to assist in levelizing the costs of major maintenance activities. The total Maintenance Reserve funding is \$349,936 for FY 2020

Operations & Maintenance Project Costs

We are anticipating O&M projects totaling \$68,250 for FY 2020.

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

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Budget Increase/ (Decrease)
Routine O & M Costs					(,
Variable	\$88,607	\$77,837	\$54,764	\$130,426	\$75,662
Fixed	444,801	605,793	462,729	477,166	14,437
Administration	54,276	17,637	48,243	49,453	1,210
Mandatory Costs	79,389	91,683	76,200	77,550	1,350
Inventory Stock	15,000	0	15,000	15,000	0
Routine O & M Costs without Labor	682,073	792,950	656,936	749,595	92,659
Labor	788,793	724,681	823,663	845,892	22,229
Total Routine O & M Costs	1,470,866	1,517,631	1,480,599	1,595,487	114,888
Other Plant Costs					
Fuel and Pipeline Transport Charges (variable)*	797,654	1,066,730	964,760	1,079,311	114,551
Fuel Acquisition Costs	36,987	21,511	12,650	9,807	(2,843)
CA ISO Charges (variable)	463	330,585	2,024	53,138	51,114
Debt Service	5,692,922	5,692,922	5,716,708	5,796,421	79,713
Insurance	76,900	62,639	71,439	77,386	5,947
Other Costs	8,451	7,941	14,053	13,251	(802)
Generation Services Shared	56,745	40,356	59,142	53,469	(5,673)
Administrative & General	360,310	315,335	361,577	341,953	(19,624)
Total O & M Costs	8,501,298	9,055,650	8,682,952	9,020,223	337,271
Projects					
Operations & Maintenance	121,348	33,295	59,900	68,250	8,350
Capital	0	5,319	0	0	0
Maintenance Reserve	0	0	0	349,936	349,936
Total Projects Costs	121,348	38,614	59,900	418,186	358,286
Annual Budget Cost	8,622,646	9,094,264	8,742,852	9,438,409	695,557
Less: Third Party Revenue					
ISO Energy Sales	88,839	1,262,479	401,317	819,302	417,985
Interest Income	42,885	85,361	108,662	108,662	0
Fuel and Pipeline Transport Credits	864,328	1,534,339	989,951	1,687,279	697,328
-	996,052	2,882,179	1,499,930	2,615,243	1,115,313
Net Annual Costs To Participants	\$7,626,594	\$6,212,085	\$7,242,922	\$6,823,166	(\$419,756)
Total Variable Costs	\$151,137	\$826,328	\$290,008	\$549,103	\$259,095
Total Fixed Costs	8,471,509	8,267,936	8,452,844	8,889,306	436,462
	\$8,622,646	\$9,094,264	\$8,742,852	\$9,438,409	\$695,557
Net Annual Generation (MWh)	1,196	8,906	5,229	9,206	3,977
Net Annual Budget Costs per MWh	\$6,377	\$698	\$1,385	\$741	(\$644)
Variable Costs per MWh	\$126	\$93	\$55	\$60	\$4
Fixed Costs per KW Month	\$14	\$14	\$14	\$15	\$1

^{*}A portion of these costs deemed to be variable

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

			F	FY 2019	roposed Y 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	orecast Y 2025		ecast 2026	Fore FY 2			Forec FY 20		orecast Y 2029	
Projects	Notes	Total		Budget															
Operations & Maintenance (O&M)																			
High Energy Pipe Inspection	M	\$ 32,500	\$	-	\$ 15,000		\$ -	\$ -	\$ -	\$ - 9	\$	17,500	\$	-	- \$		-	\$	-
STIG 480V MCC Breaker Maintenance	M	35,000		-	-	-	-	35,000	-	-		-		-			-		-
Ammonia System Major Maintenance (15.13)	M	36,000		-	-	30,000	-	-	-	-		6,000		-			-		-
Vehicles (5% Share)	D	19,500		-	3,250	3,250	3,250	3,250	3,250	3,250									
Lube Oil Hoses	D	100,000		50,000	50,000														
CSSP Cyber Monitoring System	D	9,900		9,900															
Total O&M Projects Funding Requirement		\$ 232,900	\$	59,900	\$ 68,250 \$	33,250	\$ 3,250	\$ 38,250	\$ 3,250	\$ 3,250	\$:	23,500	\$	-	\$		-	\$ -	_

Projects	Notes	Total	Fore	ecast 2019	Forecast FY 2020		orecast Y 2021	Fored FY 20		Forec		Forecast FY 2024	Foreca FY 202		Forecast FY 2027	Foreca FY 202		Forecast FY 2028
Capital Projects																		
Decommissioning Costs	D	\$ -	\$	- \$		- \$	-	\$	-	\$	-	\$	- \$4,276,9	25 \$ 5,639,946	\$ 2,683,129	\$	- \$	-
Total Capital Projects Funding Requirement		\$ -	\$	- \$	-	\$	-	\$	-	\$	-	\$ -	\$ 4,276,9	25 \$ 5,639,946	\$ 2,683,129	\$	- \$	-

Notes:

D Discretionary
M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K
The above Capital Projects listing serves as a planning & budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies and guidelines will be applied as costs are incurred.

Northern California Power Agency Combustion Turbine Project No. Two (STIG) Maintenance Reserve Budget FY 2020

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	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Authorized Contingency Balance	\$500,000											
Reserve Activity Excess funding Maintenance Projects Contingent maintenance	13,364 500,000	363,000										
Annual Funding Req. * Decommissioning costs funding Balance	\$513,364	- \$150,364	349,936 \$500,300	\$500,300	\$500,300	\$500,300	\$500,300	\$500,300	\$500,300	\$500,300	\$500,300	\$500,300
	-											

Northern California Power Agency Combustion Turbine No.2 Allocation of Project Budget FY 2020

	Allocated										
	by		Total		Alameda		Lodi		Lompoc	F	Roseville
ALLOCATION PERCENTAGES: Generation Entitlement Share	GES		100.0000%		19.0000%		39.5000%		5.0000%		36.5000%
PROJECTED MWH			9,206		1,749		3,636		194		3,626
PROJECT COSTS:											
Routine O&M:											
Variable costs	Note A	\$	130,426	\$	24,781	\$	51,518	\$	2,748	\$	51,378
Fixed costs	GES		477,166		90,662		188,481		23,858		174,166
Administration	GES		49,453		9,396		19,534		2,473		18,050
Mandatory costs	GES		77,550		14,735		30,632		3,878		28,306
Inventory	GES		15,000		2,850		5,925		750		5,475
Labor	GES		845,892		160,719		334,127		42,295		308,751
Other Costs:			,		,		,		•		,
Fuel and LDC costs	Note A		365,539		69,452		144,388		19,462		132,237
Fuel administration costs	GES		9,807		1,863		3,874		490		3,580
Fuel and pipeline transport	GES		713,772		135,617		281,940		35,689		260,526
CAISO charges	Note B		53,138		10,096		20,990		2,570		19,482
Debt service	GES		5,796,421		1,101,320		2,289,586		289,821		2,115,694
Insurance	GES		77,386		14,703		30,567		3,869		28,246
Other costs	GES		13,251		2,518		5,234		663		4,837
Generation Services Shared	GES		53,469		10.159		21,120		2.673		19.516
Administrative & General	GES		341,953		64,971		135,071		17,098		124,813
Projects:	GES		041,000		04,371		100,071		17,030		124,010
O&M and Capital	GES		68.250		12.968		26.959		3,413		24,911
Maintenance Reserve	GES		349,936		66,488		138,225		17,497		127,727
Total Project Costs	GES		9,438,409		1,793,298		3,728,172		469,246		3,447,694
Total Floject Costs	GES		9,430,409		1,793,290		3,720,172		409,240		3,447,094
Project Revenues											
ISO Energy sales	Note B		819,302		155,667		323,624		39,384		300,626
Fuel and pipeline transport credit	GES		1,687,279		320,583		666,475		84,364		615,857
Interest income	GES		108,662		20,646		42,921		5,433		39,662
Total Project Revenues			2,615,243		496,896		1,033,021		129,181		956,145
Annual Project Revenue, net		\$	6,823,166	\$	1,296,402	\$	2,695,151	\$	340,065	\$	2,491,549
Estimated price per Mwh		\$	741.17	\$	741.17	\$	741.17	\$	1,752.91	\$	687.04
Estimated price per mwn		Ψ	741.17	Ψ	741.17	Ψ	741.17	Ψ	1,732.91	Ψ	007.04
FY 2019 Net Annual Project Costs		\$	7,242,922		1,376,155		2,860,954		365,045		2,640,768
Net Project Cost Decrease		\$	(419,756)		(79,754)		(165,804)		(24,980)		(149,219)
			-5.80%		-5.80%		-5.80%		-6.84%		-5.65%
Summary of Variable and Fixed Proj	ect Costs:										
Variable Costs		\$	549,103	\$	104,330	\$	216,896	\$	24,780	\$	203,097
Fixed Costs		Ψ	8,889,306	Ψ	1,688,968	φ	3,511,276	Ψ	444,465	Ψ	3,244,597
Total Project Costs		\$	9,438,409	\$	1,793,298	\$	3,728,172	\$	469,246	\$	3,447,694
Total Troject Costs		Ψ	3,430,408	Ψ	1,135,230	ψ	5,120,112	Ψ	403,240	Ψ	5,447,034

¹ Generation Entitlement Share (GES) is synonomus with commonly used terms of Project Entiltlement 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 2020 Specific Assumptions and Rationale

General

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

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

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

Operations & Maintenance

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

Maintenance Reserve

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

- Anticipated costs of estimated scheduled overhauls;
- Deductible portion of an insured loss (currently \$500,000 or more depending on the type of loss); and
- Unanticipated; but, Commission approved, cost overruns, extraordinary repairs and maintenance not budgeted in the maintenance expense accounts, and
- An additional maintenance reserve funding has been included to assist in levelizing the costs of major maintenance activities. The total Maintenance Reserve funding is \$1,496,174 for FY 2020

Projects

Capital Projects for FY 2020 total \$2,915,858, and O&M Projects total \$920,683.

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

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Budget Increase/ (Decrease)
Routine O & M Costs					(,
Variable	\$1,263,067	\$4,862,143	\$4,733,380	\$5,381,629	\$648,249
Fixed	3,336,592	3,998,671	3,443,662	2,646,090	(797,572)
Administration	230,934	78,397	205,529	209,845	4,316
Mandatory Costs	291,959	388,202	298,336	304,750	6,414
Routine O & M Costs without Labor	5,122,552	9,327,413	8,680,907	8,542,314	(138,593)
Labor	5,051,714	5,068,651	5,284,165	5,558,310	274,145
Total Routine O & M Costs	10,174,266	14,396,064	13,965,072	14,100,624	135,552
Other Plant Costs					
Fuel	14,877,170	27,107,773	33,092,116	39,513,147	6,421,031
CA ISO Charges (variable)	196,309	582,528	550,660	883,969	333,309
CA ISO Energy Purchases (variable)	3,724,590	4,813,116	5,113,848	3,826,263	(1,287,585)
Debt Service	26,416,640	26,198,432	26,079,852	26,054,428	(25,424)
Insurance	765,367	568,332	625,976	674,648	48,672
Other Costs	54,826	52,101	124,926	128,792	3,866
Generation Services Shared	359,388	282,637	368,963	339,783	(29,180)
Administrative & General	1,883,356	2,084,184	2,182,080	2,105,792	(76,288)
Power Management Allocated Costs	1,479,117	1,243,649	1,446,134	1,439,156	(6,978)
Total O & M Costs	59,931,029	77,328,816	83,549,627	89,066,602	5,516,975
Projects					
Operations & Maintenance	63,652	103,459	52,000	920,683	868,683
Capital	560,000	75,374	100,000	2,915,858	2,815,858
Maintenance Reserve	2,012,800	2,012,800	1,461,107	1,496,174	35,067
Total Projects	2,636,452	2,191,633	1,613,107	5,332,715	3,719,608
Annual Budget Cost	62,567,481	79,520,449	85,162,734	94,399,317	9,236,583
Less: Third Party Revenue					
ISO Energy Sales	19,760,321	49,356,645	52,414,938	72,602,551	20,187,613
Ancillary Services Sales	396,879	1,871,139	1,028,631	1,432,533	403,902
Interest Income - Operations	61,245	109,705	94,945	94,945	0
Interest Income (NCPA)	103,723	241,473	242,355	242,355	0
Interest Income (CDWR)	6,921	56,701	48,545	48,545	0
Other Income	0	74,898	0	0	0
	20,329,089	51,710,561	53,829,414	74,420,929	20,591,515
Net Annual Budget Cost To Participar	\$42,238,392	\$27,809,888	\$31,333,320	\$19,978,388	(\$11,354,932)
Total Variable Costs	\$20,061,136	\$37,365,560	\$43,490,004	\$49,605,008	(\$33,398,143)
Total Fixed Costs	42,506,345	42,154,889	41,672,730	44,794,309	3,121,579
<u> </u>	\$62,567,481	\$79,520,449	\$85,162,734	\$94,399,317	(\$30,276,564)
Net Annual Generation (MWh)	377,711	1,075,084	1,304,122	1,599,464	295,342
Net Annual Budget Costs per MWh	\$112	\$26	\$24	\$12	(\$12)
Variable Costs per MWh	\$53	\$35	\$33	\$31	(\$2)
Fixed Costs per KW Month	\$13	\$13	\$12	\$13	\$1
	410	Ψ10	Y	410	-55

Northern California Power Agency Lodi Energy Center Projects Detail

			FY 2019	Proposed FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029
Projects	Notes	Total	Budget										
Operations & Maintenance (O&M)													
Gas Turbine Insulation	M	\$ 275,000) \$ -	- \$	\$ -	\$ 275,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NFPA Purge Credit	D	200,000) -		200,000								
Service Water Piping	M	250,000) -		-	50,000	-	-	200,000	-	-	-	-
Vehicles (5% Share)	D	19,500) -	3,250	3,250	3,250	3,250	3,250	3,250				
Asphalt & Paving Maintenance	M	80,000) -		80,000	-	-	-	-	-	-	-	-
HVAC	M	40,000) -	. <u>-</u>	-	40,000	-	-	-	-	-	-	-
CSSP Cyber Monitoring System	D	52,000	52,000	-	-	-	-	-	-	-	-	-	-
Annual Maintenance Outage	M	10,517,34	1	917,433	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
Total O&M Projects Funding Requirement		\$ 11,433,84	1 \$ 52,000	\$ 920,683	\$ 1,228,206	\$ 1,341,555	\$ 1,005,754	\$ 1,035,829	\$ 1,266,806	\$ 1,095,463	\$ 1,128,327	\$ 1,162,177	\$ 1,197,042

			F	FY 2019	Proposed FY 2020		Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025		Forecast FY 2026	orecast Y 2027	Forecast FY 2028		Forecast FY 2029
Projects	Notes	Total		Budget													
Capital Projects																	
Platforms (20)	D	\$ 550,000	\$	100,000 \$;	- \$	450,000	\$ - \$	-	\$ -	\$ -	- 9	\$ -	\$ -	\$. \$	-
DCS Software Upgrades	D	450,000		-		-	-	-	-	450,000	-		-	-			-
DCS Hardware Updates	D	250,000		-		-	-	-	250,000	-	-		-	-			-
Clarifier Tank Refurbishment	M	400,000		-		-	-	-	-	-	-		400,000	-			-
Cooling Tower OH	D	500,000		-		-	-	-	-	-	-		-	-	500,000		-
Air Filter Puffer System	D	500,000		-		-	-	-	500,000	-	-		-	-			-
BOP PLC Upgrades	D	125,000		-		-	-	125,000	-	-	-		-	-			-
GSU Transformer	D	2,915,858			2,915,858	В											
Unidentified Capital Project	D	2,000,000		-	•		500,000	-	-	-	500,000)	-	500,000	500,000		-
Total Capital Projects Funding Requirement		\$ 7,690,858	\$	100,000 \$	2,915,85	B \$	950,000	\$ 125,000 \$	750,000	\$ 450,000	\$ 500,000) {	\$ 400,000	\$ 500,000	\$ 1,000,000	\$	

Notes:

D Discretionary
M Mandatory

Authorization For Budget (AFB) is prepared for all projects greater than \$100K
The above Capital Projects listing serves as a planning & budgeting tool. Agency, Federal Energy Regulatory Commission, and Governmental Accounting Standards Board capitalization rules, policies and guidelines will be applied as costs are incurred.

Northern California Power Agency Maintenance Reserves - Lodi Energy Center Budget FY 2020

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 in 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.

						Fiscal Year A	ctivity					
Funding/(Expenditures)	2019	2020	2021	2022		2023	2024	2025	2026	2027	2028	2029
LEC:												
Beginning Reserve Balance	\$ 2,332,520	\$ -	\$ - \$		- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
Projected Reserve Expenditures -												
Combustion Turbine (Overhaul)	-	-	(100,000)	(2,159,760	0)	-	-	-	(90,000)	-	-	(50,000)
Steam Turbine	-	-	-	(740,000))	-	-	(20,000)	-	-	-	-
Generators	(35,000)	-	-		-	-	(70,000)	-	-	-	-	-
Plant Projects	(1,010,000)	(640,000)	(2,340,000)	(550,000	0)	(1,005,000)	(1,625,000)	(520,000)	(620,000)	(1,635,000)	(776,371)	(620,000)
HRSG	(204,940)	(90,000)	(300,000)	(215,000))	(450,000)	(40,000)	(1,200,000)	(540,000)	(175,000)	(40,000)	(300,000)
Total Projected Expenditures	(1,249,940)	(730,000)	(2,740,000)	(3,664,760	0)	(1,455,000)	(1,735,000)	(1,740,000)	(1,250,000)	(1,810,000)	(816,371)	(970,000)
Projected Reserve Funding -												
Unit Overhaul	239,940	890,000	570,000	705,000)	590,000	350,000	1,460,000	780,000	415,000	280,000	540,000
Plant Projects	1,221,167	606,174	962,082	863,852	2	1,016,504	1,295,060	224,542	944,971	1,351,370	1,528,763	1,312,173
Total Projected Funding	1,461,107	1,496,174	1,532,082	1,568,852	2	1,606,504	1,645,060	1,684,542	1,724,971	1,766,370	1,808,763	1,852,173
Cumulative Balance	\$ 2,543,687	\$ 3,309,861	\$ 2,101,943 \$	6,03	5 \$	157,539 \$	67,599 \$	12,141 \$	487,112 \$	443,482 \$	1,435,874 \$	2,318,047
	 _	 _	 									_

LODI ENERGY CENTER Allocation of Project Budget FY 2020

	Allocated by	Total	Azusa	BART	Biggs	CDWR	Gridley I	lealdsburg	Lodi	Lompoc	MID Plu	ımas-Sierra	PWRPA	SVP	Ukiah
ALLOCATION PERCENTAGES:															
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	-	1,599,464	44,556	105,565	4,285	535,820	31,418	26,276	151,949	32,560	171,371	12,567	42,672	411,862	28,562
PROJECT COSTS:															
Fuel Cost	GES	\$ 39,513,147 \$	1,100,718 \$	2,607,868 \$	105,856 \$	13,236,904 \$	776,157 \$	649,122 \$	3,753,749 \$	804,369 \$	4,233,557 \$	310,455 \$	1,054,171 \$	10,174,635 \$	705,586
Labor		\$ 5,558,310 \$	154,838 \$	366,848 \$	14,891 \$	1,862,034 \$		91,312 \$	528,039 \$	113,151 \$	595,534 \$	43,672 \$	148,290 \$	1,431,265 \$	
Variable O&M		\$ 5,381,629 \$	149,916 \$	355,188 \$	14,417 \$	1,802,846 \$	105,711 \$	88,409 \$	511,255 \$	109,554 \$	576,604 \$	42,283 \$	143,576 \$	1,385,769 \$	96,100
Fixed O&M		\$ 2,646,090 \$	73,712 \$	174,642 \$	7,089 \$	886,440 \$		43,470 \$	251,379 \$	53,866 \$	283,510 \$	20,790 \$	70,595 \$	681,368 \$	47,251
O&M Administration		\$ 209,845 \$	5,846 \$	13,850 \$	562 \$	70,298 \$		3,447 \$	19,935 \$	4,272 \$	22,483 \$	1,649 \$	5,598 \$	54,035 \$	
Mandatory Costs		\$ 304,750 \$	8,489 \$	20,114 \$	816 \$	102,091 \$		5,006 \$	28,951 \$	6,204 \$	32,652 \$	2,394 \$	8,130 \$	78,473 \$	
Inventory Stock		\$ - \$	- \$	- \$	- \$	- \$		- \$	- \$	- \$	- \$	- \$	- \$	- \$	
O&M and Capital Projects Costs		\$ 3,836,541 \$	106,875 \$	253,212 \$	10,278 \$	1,285,241 \$		63,027 \$	364,471 \$	78,100 \$	411,059 \$	30,144 \$	102,355 \$	987,909 \$	68,509
Maintenance Reserve		\$ 1,496,174 \$	41,679 \$	98,747 \$	4,008 \$	501,218 \$		24,579 \$	142,137 \$	30,458 \$	160,305 \$	11,755 \$	39,916 \$	385,265 \$	
Insurance		\$ 674,648 \$	18,794 \$	44,527 \$	1,807 \$	226,007 \$		11,083 \$	64,092 \$	13,734 \$	72,284 \$	5,301 \$	17,999 \$	173,722 \$	
Other Costs		\$ 61,750 \$	1,720 \$	4,076 \$	165 \$	20,686 \$,	1,014 \$	5,866 \$	1,257 \$	6,616 \$	485 \$	1,647 \$	15,901 \$	
Generation Services Shared		\$ 339,783 \$	9,465 \$	22,426 \$	910 \$	113,827 \$		5,582 \$	32,279 \$	6,917 \$	36,405 \$	2,670 \$	9,065 \$	87,494 \$	
Transmission (CAISO)		\$ 883,969 \$	24,625 \$	58,342 \$	2,368 \$	296,129 \$		14,522 \$	83,977 \$	17,995 \$	94,711 \$	6,945 \$	23,583 \$	227,623 \$	
Energy Purchases (CAISO)		\$ 3,826,263 \$	106,588 \$	252,533 \$	10,251 \$	1,281,798 \$	75,159 \$	62,858 \$	363,495 \$	77,891 \$	409,957 \$	30,063 \$	102,081 \$	985,263 \$	68,326
Debt Service Cost:															
Indenture Group A Cost		\$ 20,916,454 \$	1,044,484 \$	2,474,626 \$	100,441 \$	- \$		615,948 \$	3,561,968 \$	763,262 \$	- \$	294,587 \$	1,000,308 \$	9,654,784 \$	
BAB's Subsidy (Group A)		\$ (4,239,356) \$	(211,696) \$	(501,558) \$	(20,357) \$	- \$		(124,841) \$	(721,941) \$	(154,698) \$	- \$	(59,707) \$	(202,743) \$	(1,956,836) \$	
Debt and Trustee Fees (Group A)		\$ 43,907 \$ \$ 11,407,840 \$	2,193 \$	5,195 \$ - \$	211 \$	- \$ 11 407 840 \$.,0.0 \$	1,293 \$	7,477 \$ - \$	1,602 \$	- \$ - \$	618 \$ - \$	2,100 \$	20,267 \$	
Indenture Group B Cost BAB's Subsidy (Group B)		\$ 11,407,840 \$ \$ (2.030,510) \$	- \$ - \$	- \$ - \$	- \$ - \$	11,407,840 \$ (2.030,510) \$	-	- \$ - \$	- \$ - \$	- \$ - \$	- \$ - \$	- \$ - \$	- \$ - \$	- \$ - \$	-
		\$ (2,030,510) \$	- \$ - \$		Ţ.	23.135 \$			- \$ - \$	*			· ·		-
Debt and Trustee Fees (Group B)		\$ 2,105,792 \$	58,661 \$	- \$ 138,982 \$,	705,440 \$		- \$ 34,594 \$	200,050 \$	- \$ 42,868 \$	- \$ 225,621 \$	- \$ 16,545 \$	- \$ 56,180 \$	- \$ 542,241 \$	37,603
Administrative & General Power Management Allocated Costs		\$ 2,105,792 \$ \$ 1,439,156 \$	40.091 \$	94.984 \$	5,641 \$ 3.855 \$	705,440 \$ 482.117 \$	28,269 \$	23.642 \$	136,720 \$	42,000 \$ 29,297 \$	154,195 \$	11,307 \$	38.395 \$	542,241 \$ 370,583 \$	
Total Project Costs		\$ 94,399,317 \$	2,736,996 \$	6,484,600 \$	263,210 \$	32,273,543 \$		1,614,069 \$	9,333,899 \$	2,000,098 \$	7,315,493 \$	771,957 \$	2,621,250 \$	25,299,762 \$	
Estimated price per MWh	=	\$ 59.02 \$	61.43 \$	61.43 \$	61.43 \$	60.23 \$		61.43 \$	61.43 \$	61.43 \$	42.69 \$	61.43 \$	61.43 \$	61.43 \$	
Third Party Revenue															
ISO Energy Sales		\$ 72,602,551 \$	2,022,489 \$	4,791,768 \$	194,502 \$	24,321,855 \$		1,192,715 \$	6,897,242 \$	1,477,970 \$	7,778,855 \$	570,438 \$	1,936,963 \$	18,695,157 \$	
Ancillary Services Sales		\$ 1,432,533 \$	39,906 \$	94,547 \$	3,838 \$	479,899 \$		23,534 \$	136,091 \$	29,162 \$	153,486 \$	11,255 \$	38,219 \$	368,877 \$	
Interest & Other Income		\$ 94,945 \$	2,645 \$	6,266 \$	254 \$	31,807 \$		1,560 \$	9,020 \$	1,933 \$	10,173 \$	746 \$	2,533 \$	24,448 \$	
Interest Income (Group A)		\$ 242,355 \$	12,102 \$	28,673 \$	1,164 \$	- \$		7,137 \$	41,272 \$	8,844 \$	- \$	3,413 \$	11,590 \$	111,868 \$	7,758
Interest Income (Group B)		\$ 48,545 \$	- \$	- \$	- \$	48,545 \$		- \$	- \$	- \$	- \$	- \$	- \$	- \$	
	=	\$ 74,420,929 \$	2,077,142 \$	4,921,255 \$	199,758 \$	24,882,105 \$	1,464,670 \$	1,224,945 \$	7,083,625 \$	1,517,909 \$	7,942,514 \$	585,853 \$	1,989,305 \$	19,200,351 \$	1,331,498
Annual Project Costs, net		\$ 19,978,388 \$	659,854 \$	1,563,345 \$	63,452 \$	7,391,438 \$	465,292 \$	389,124 \$	2,250,274 \$	482,190 \$	(627,020) \$	186,104 \$	631,944 \$	6,099,411 \$	422,979
Estimated price per Mwh, net	=	\$ 12.49 \$	14.81 \$	14.81 \$	14.81 \$	13.79 \$	14.81 \$	14.81 \$	14.81 \$	14.81 \$	(3.66) \$	14.81 \$	14.81 \$	14.81 \$	14.81
,											(, , ,				
JPA Assessment (per PMOA)	=	\$ 104,789 \$	5,877 \$	- \$	- \$	70,678 \$	- \$	- \$	- \$	- \$	22,605 \$	- \$	5,629 \$	- \$	
O															
Summary of Variable and Fixed Project C Variable Costs		\$ 49,605,008 \$	1,381,847 \$	3,273,931 \$	132,892 \$	16,617,677 \$	974,391 \$	814,911 \$	4,712,476 \$	1,009,809 \$	5,314,829 \$	389,746 \$	1,323,412 \$	12,773,291 \$	885,797
Fixed Costs		\$ 49,605,006 \$ \$ 44,794,309 \$	1,355,149 \$	3,210,669 \$	132,692 \$	15,655,866 \$	974,391 \$	799,158 \$	4,712,476 \$	990,289 \$	2,000,664 \$	382,211 \$	1,323,412 \$	12,773,291 \$	
Fixed Costs		\$ 44,794,309 \$ \$ 94.399.317 \$		6.484.600 \$	263,210 \$	32,273,543 \$			9,333,899 \$	2,000,098 \$	7,315,493 \$	771,957 \$	2,621,250 \$	25,299,762 \$	
	=	\$ 54,555,517 \$	2,730,990 \$	0,404,000 φ	203,210 φ	32,213,343 ¥	1,323,302 ψ	1,014,003 φ	9,333,099 ¥	2,000,030 \$	7,515,455 \$	111,351 \$	2,021,230 φ	25,255,762 \$	1,734,477
FY 2019 Approved Budget (For Comparis	son Purnoso).														
Net Annual Project Costs	son i uiposej.	\$ 31,333,320 \$	906,945 \$	2,148,765 \$	87,215 \$	10,360,231 \$	639,525 \$	534,839 \$	3,092,923 \$	662,756 \$	320,431 \$	255,796 \$	3,359,090 \$	8,383,435 \$	581,370
•	=	, , , , , , , , , , , , , , , , , , , ,	,	, ,, ,, ,			,.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-, , ,	,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,,	
Project Costs (Increase)	<u>-</u>	\$ (11,354,932) \$	(247,091) \$	(585,420) \$	(23,763) \$	(2,968,793) \$		(145,715) \$	(842,648) \$	(180,566) \$	(947,451) \$	(69,692) \$	(2,727,146) \$	(2,284,023) \$	
	-	-36.24%	-27.24%	-27.24%	-27.25%	-28.66%	-27.24%	-27.24%	-27.24%	-27.24%	-295.68%	-27.25%	-81.19%	-27.24%	-27.24%

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

O&M Reserve Fund Calculation: Total O&M Costs Estimated Requirement	/365*60	68,344,889 11,234,776	312,967	741,495	30,098	3,763,651	220,685	184,565	1,067,304	228,706	1,203,728	88,272	299,733	2,892,955	200,619
O&M Reserve balance as of February 2019	9	9,871,724	274,997	651,534	26,446	3,307,028	193,910	162,173	937,814	200,959	1,057,686	77,562	263,368	2,541,969	176,279
Excess Reserve Requirement	\$	1,363,052 \$	37,970 \$	89,961 \$	3,652 \$	456,623 \$	26,775 \$	22,392 \$	129,490 \$	27,747 \$	146,042 \$	10,710 \$	36,365 \$	350,986 \$	24,340
Excess Reserve Requirement will be cred	lited to particip	pants in the July 201	9 All Resources E	Bill.											

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

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Budget Increase/ (Decrease)
Shared Costs					
Fixed O&M	\$308,501	\$204,355	\$261,500	\$279,525	\$18,025
Administration	283,476	96,163	247,184	253,350	6,166
Mandatory	39,941	46,085	40,000	40,000	0
Shared Costs without Labor	\$631,918	\$346,602	\$548,684	\$572,875	\$24,191
Summary of Costs by Subprograms per PMOA S	Schedule 4.00				
Anhydrous Ammonia System (Alloc 1)	15,698	1,908	9,000	10,000	1,000
Administration/Warehouse Building (Alloc 2)	509,471	277,932	448,184	471,875	23,691
230 Kv Switchyard Common Equip (Alloc 4)	65,931	38,577	45,000	45,000	0
Tooling and Special Equipment (Alloc 5)	4,312	1,261	7,500	7,000	(500)
Vehicle Usage (Alloc 7)	36,506	26,924	39,000	39,000) O
	\$631,918	\$346,602	\$548,684	\$572,875	\$24,191
Liquidation to Plants CT 1					
O&M & Inventory	\$55,699	\$40,665	\$55,320	\$57,363	\$2,043
Administration	34,017	11,540	29,662	30,402	740
Mandatory	4,793	5,530	4,800	4,800	0
_	94,509	57,735	89,782	92,565	2,783
CT 2					
O&M & Inventory	48,442	32,122	40,450	43,666	3,216
Administration	51,026	17,309	44,493	45,603	1,110
Mandatory	7,189	8,295	7,200	7,200	0
	106,657	57,726	92,143	96,469	4,326
LEC					
O&M & Inventory	204,360	131,568	165,730	178,496	12,766
Administration	198,433	67,314	173,029	177,345	4,316
Mandatory	27,959	32,259	28,000	28,000	0
	430,752	231,141	366,759	383,841	17,082
	\$631,918	\$346,602	\$548,684	\$572,875	\$24,191

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

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Budget Increase/ (Decrease)
Fixed O&M Costs					
Services -					
Legal Services (Alloc 2)	23,484	531	10,000	11,000	1,000
Tools/Shop/Warehouse (Alloc 2)	0	4,972	3,000	5,000	2,000
Buildings and Grounds (Alloc 2)	5,478	6,078	24,000	22,000	(2,000)
Ammonia System (Alloc 1)	15,698	1,488	9,000	9,000	0
Switchyard (Alloc 4)	20,931	8,700	12,000	12,000	0
Overall Facility Expense (Alloc 2)	0	282	0	1,025	1,025
Network/Communication (Alloc 5)	0	1,263	0	0	0
Balance of Plant (Alloc 2)	5,110	13,406	5,000	12,000	7,000
Electric/Control (Alloc 2)	0	6,739	0	3,000	3,000
Vehicle (Alloc 7)	5,110	6,620	12,000	12,000	0
_	75,811	50,079	75,000	87,025	12,025
Materials & Supplies -					
Buildings and Grounds (Alloc 2)	0	2,031	20,000	20,000	0
Overall Facility Expense (Alloc 2)	0	20,138	10,000	14,500	4,500
Ammonia System (Alloc 1)	0	420	0	1,000	1,000
Switchyard (Alloc 4)	0	2,114	5,000	5,000	0
Network/Communication (Alloc 5)	4,312	0	7,500	7,000	(500)
Balance of Plant (Alloc 2)	47,094	4,441	0	5,000	5,000
Tools/Shop/Warehouse Equipment (Alloc 2)	31,396	35,195	35,000	35,000	0
Electric/Control (Alloc 2)	0	4,264	0	2,000	2,000
Vehicle (Alloc 7)	31,396	20,305	27,000	27,000	0
_	114,198	88,907	104,500	116,500	12,000
Other Costs -					
Telephone & Dedicated Comm. (Alloc 2)	0	0	3,000	3,000	0
Maintenance Connection (Alloc 4)	45,000	27,763	28,000	28,000	0
Aux Power and Utilities (Alloc 2)	68,259	36,371	35,000	35,000	0
Equipment Rentals (Alloc 2)	5,233	1,234	16,000	10,000	(6,000)
_	118,492	65,368	82,000	76,000	(6,000)
	\$308,501	\$204,354	\$261,500	\$279,525	\$18,025

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

				Proposed	Budget
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Administration Expense					
Services -					
Office Equipment (Alloc 2)	5,417	320	5,417	5,300	(117)
General Office (Alloc 2)	2,555	1,083	2,555	2,400	(155)
Janitorial Services (Alloc 2)	10,220	9,860	10,220	11,000	780
	18,192	11,263	18,192	18,700	508
Other Costs -					
Travel (Alloc 2)	55,249	7,681	25,000	25,000	0
Staff Development (Alloc 2)	52,904	10,262	52,904	53,000	96
Meals & Per Diems (Alloc 2)	511	134	511	550	39
Safety Incentive Program (Alloc 2)	0	0	1,500	1,500	0
Community Relations (Alloc 2)	1,022	0	1,022	1,000	(22)
Janitorial Supplies & Misc Expenses (Alloc 2)	39,091	16,568	35,000	35,000	0
Office Equipment (Alloc 2)	61,831	19,665	55,000	55,000	0
General Office Supplies (Alloc 2)	46,909	17,948	40,000	40,000	0
Computer (software,hardware,network,) (Allo	0	171	10,000	10,000	0
Awards/Functions/Meetings (Alloc 2)	5,212	10,486	5,500	11,000	5,500
Publications (Alloc 2)	2,555	1,987	2,555	2,600	45
	265,284	84,900	228,992	234,650	5,658
<u> </u>	\$283,476	\$96,163	\$247,184	\$253,350	\$6,166
Mandatory Costs					
Services -					
Safety Services (Alloc 2)	0	20,260	0	0	0
	0	20,260	0	0	0
Other Costs -					
Permit Fees (Alloc 2)	0	65	0	0	0
Environmental Supplies (Alloc 2)	0	529	0	0	0
Safety Supplies & Equipment (Alloc 2)	39,941	25,231	40,000	40,000	0
	39,941	25,825	40,000	40,000	0
<u> </u>	39,941	46,085	40,000	40,000	0

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

Routine O&M Costs
Operations
Administration
Routine O&M w/o Labor
Labor
Total Routine O&M Costs
Occupancy Cost
Annual Budget Cost

Less Funding
Generation Services Shared - Liquidation

	Person Years	Allocation
Allocated	FY 20	FY 20 %
Hydro	19.18	22.1%
CT 1	4.44	5.1%
CT 2	3.27	3.8%
LEC	20.78	24.0%
Geo	39.00	45.0%
	86.67	100.0%

Allocation based on FTE person years.

FY 2018 FY 2018 Budget Actual				FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)		
\$ 100,000 54,000	\$	99,235 (44,744)	\$	90,000 54,000	\$ 76,401 50,500	\$	(13,599) (3,500)	
154,000 1,279,048		54,491 1,028,599		144,000 1,323,528	126,901 1,227,032		(17,099) (96,496)	
1,433,048 59,934		1,083,090 51,779		1,467,528 63,178	1,353,933 63,249		(113,595) 71	
\$ 1,492,982	\$	1,134,869		1,530,706	1,417,182		(113,524)	
 (1,492,982)		(1,134,869)		(1,530,706)	(1,417,182)		113,524	
\$ -	\$	-	\$	-	\$ -	\$	-	
\$ 487,532 80,734 75,786 510,711		349,007 40,180 58,987 451,379	\$	342,698 63,072 59,141 368,963	\$ 313,621 72,601 53,469 339,784	\$	(29,077) 9,528 (5,672) (29,180)	
\$ 994,857 2,149,621	\$	823,041 1,722,594	\$	696,831 1,530,706	\$ 637,707 1,417,182	\$	(59,124) (113,524)	

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

		Proposed				Proposed	
	FY 2019	FY 2020	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
Member Resources	Budget	Budget	Budget	Actual	Budget	Budget	(Decrease)
Contracts							
Alameda	165,997 MWh	153,896 MWh	\$8,694,511	\$7,566,349	\$11,437,776	\$11,058,230	(\$379,546)
Lodi	29,745 MWh	30,737 MWh	1,879,878	1,223,422	1,873,941	1,936,423	62,482
Palo Alto	573,682 MWh	560,605 MWh	38,770,623	43,676,756	39,862,652	40,444,140	581,488
Plumas-Sierra	46,006 MWh	0 MWh	1,987,165	0	243,432	0	(243,432)
Port of Oakland	60,474 MWh	56,309 MWh	2,050,787	2,778,531	2,648,564	2,479,726	(168,838)
Santa Clara	0 MWh	0 MWh	0	76,500	0	0	0
Ukiah	0 MWh	0 MWh	6,070	0	0	0	0
Pioneer			0	81,250	0	0	0
		_	53,389,034	55,402,808	56,066,365	55,918,519	(147,846)
ISO Energy Purchases					7,803,402	0	(7,803,402)
ISO GMC Charges					579,047	310,448	(268,599)
Annual Budget Cost		_	53,389,034	55,402,808	64,448,814	56,228,967	(8,219,847)
Less: Third Party Revenue							
Energy Sales to Third Parties				6,498,868	9,040,901	1,181,273	(7,859,628)
ISO Energy Sales					28,186,777	29,156,411	969,634
Interest and Other Income			67,048	167,048	0		0
		_	67,048	6,665,916	37,227,678	30,337,684	(6,889,994)
Net Annual Budget Cost to Par	ticipants	_	\$53,321,986	\$48,736,892	\$27,221,136	\$25,891,283	(\$1,329,853)

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

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

				Proposed	
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Member Resources - Natural Gas					
Contracts					
Biggs	\$49,484	\$49,441	\$31,202	\$51,088	\$19,886
Gridley	242,427	242,274	137,483	235,355	97,872
Healdsburg	190,372	190,255	106,272	285,612	179,340
Lodi	1,744,558	1,743,554	1,891,935	2,089,082	197,147
Lompoc	755,870	755,195	564,155	527,462	(36,693)
Ukiah	474,445	474,250	367,231	352,299	(14,932)
Annual Budget Cost	3,457,156	3,454,969	3,098,278	3,540,898	442,620
Gas Transfer Credits					
Biggs	36,765	30,899	22,663	47,719	25,056
Gridley	182,502	153,722	101,783	222,144	120,361
Healdsburg	143,686	121,077	79,112	254,979	175,867
Lodi	1,402,159	1,173,340	1,469,097	2,091,125	622,028
Lompoc	620,739	520,027	420,558	510,382	89,824
Ukiah	393,940	329,884	284,204	332,906	48,702
	2,779,791	2,328,949	2,377,417	3,459,255	1,081,838
Interest Income	0	0	7,391	7,391	0
Other Income	0	0	0	0	0
Net Annual Budget Cost to Participants	\$677,365	\$1,126,020	\$713,470	\$74,252	(\$639,218)

NORTHERN CALIFORNIA POWER AGENCY Western Resources Comparative Annual Budget Report

		Proposed				Proposed	
	FY 2019	FY 2020	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
Western Resources	Budget	Budget	Budget	Actual	Budget	Budget	(Decrease)
NCPA Power Pool							
Alameda	42,264 MWh	32,190 MWh	\$912,951	\$950,615	\$917,328	\$684,036	(\$233,292)
Biggs	10,351 MWh	7,884 MWh	223,593	179,815	224,661	167,532	(57,129)
Gridley	23,167 MWh	17,645 MWh	500,427	463,691	502,824	374,946	(127,878)
Healdsburg	8,811 MWh	6,711 MWh	190,317	202,339	191,238	142,599	(48,639)
Lodi	19,948 MWh	15,193 MWh	430,893	531,829	432,957	322,851	(110,106)
Lompoc	11,304 MWh	8,610 MWh	244,188	262,866	245,358	182,958	(62,400)
Palo Alto	431,291 MWh	328,492 MWh	9,316,422	8,738,464	9,361,092	6,980,424	(2,380,668)
Plumas-Sierra	81,058 MWh	61,738 MWh	1,750,959	1,580,504	1,759,356	1,311,921	(447,435)
Ukiah	12,118 MWh	9,230 MWh	261,768	281,725	263,019	196,131	(66,888)
Port of Oakland	21,195 MWh	16,143 MWh	457,833	402,569	460,029	343,041	(116,988)
Truckee	0 MWh	0 MWh	0	0	0	0	0
		_	14,289,351	13,594,417	14,357,862	10,706,439	(3,651,423)
Restoration Fund			5,504,298	3,585,752	6,779,488	4,884,802	(1,894,686)
Western O&M			10,134,495	8,081,248	9,956,265	7,516,037	(2,440,228)
CAISO GMC Charges		_	191,736	223,145	256,003	217,841	(38,162)
Annual Budget Cost		_	30,119,880	25,484,562	31,349,618	23,325,119	(8,024,499)
Less: Third Party Revenue							
ISO Energy Sales			18,026,100	23,578,402	23,182,775	18,304,471	(4,878,304)
Displacement Revenue			0	1,197,591	0		0
Western O&M Revenue Credits			10,134,495	8,079,186	9,956,265	7,516,037	(2,440,228)
Interest Income			7,409	11,886	21,862	21,862	0
			28,168,004	32,867,065	33,160,902	25,842,370	(7,318,532)
Net Annual Budget Cost			\$1,951,876	(\$7,382,503)	(\$1,811,284)	(\$2,517,251)	(\$705,967)

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

NORTHERN CALIFORNIA POWER AGENCY Market Power Purchases Comparative Annual Budget Report

	FY 2019	Proposed FY 2020	FY 2018	FY 2018	FY 2019	Proposed FY 2020	Increase/
M I I D D I ANODA O I I	Budget	Budget	Budget	Actual	Budget	Budget	(Decrease)
Market Power Purchases & NCPA Contracts							
Alameda	2,004 MWh	2,010 MWh	\$282,000	\$535,346	\$176,370	\$176,890	\$520
Biggs	0 MWh	664 MWh	10,397	58,020	0	23,140	23,140
Gridley	2,359 MWh	1,936 MWh	158,213	352,721	283,753	405,956	122,203
Healdsburg	0 MWh	0 MWh	30,395	185,458	0	0	0
Lodi	43,108 MWh	30,816 MWh	4,412,662	5,959,897	1,572,131	1,063,374	(508,757)
Lompoc	17,656 MWh	13,151 MWh	938,628	1,119,713	656,748	459,568	(197,180)
Palo Alto	0 MWh	0 MWh	0	361,408	0	0	0
Plumas-Sierra	0 MWh	0 MWh	0	138,500	0	0	0
Port of Oakland	0 MWh	0 MWh	0	45,825	0	0	0
Ukiah	0 MWh	1,632 MWh	151,911	149,808	0	56,875	56,875
BART	345,400 MWh	350,399 MWh	13,333,819	15,384,557	12,630,411	12,782,687	152,276
Santa Clara	0 MWh	0 MWh	0	5,299	0	0	0
Pioneer			0	11,198,751			0
			19,318,025	35,495,303	15,319,413	14,968,490	(350,923)
ISO Energy Purchases					0	0	0
ISO GMC Charges					219,620	154,992	(64,628)
Annual Budget Cost			\$19,318,025	\$35,495,303	\$15,539,033	\$15,123,482	(\$415,551)
Less: Third Party Revenue							
ISO Energy Sales			0	0	14,720,326	15,623,339	903,013
Market Sales			0	0	0	718,562	718,562
Interest Income			0	0	0	, 0	. 0
			0	0	14,720,326	16,341,901	1,621,575
Net Annual Budget Cost to Participants			\$19,318,025	\$35,495,303	\$818,707	(\$1,218,419)	(\$2,037,126)

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

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

		Proposed				Proposed	
	FY 2019	FY 2020	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
-	Budget	Budget	Budget	Actual	Budget	Budget	(Decrease)
Alameda	351,616 MWh	357,009 MWh	\$13,176,733	\$12,714,688	\$12,691,811	\$13,573,417	\$881,606
Biggs	16,917 MWh	16,873 MWh	571,252	563,029	613,234	643,421	30,187
Gridley	36,989 MWh	35,953 MWh	1,367,369	1,369,863	1,365,272	1,396,750	31,478
Healdsburg	80,755 MWh	78,903 MWh	3,007,178	2,949,143	2,934,146	2,999,705	65,559
Lodi	451,161 MWh	433,575 MWh	16,974,375	16,676,543	16,518,894	16,635,028	116,134
Lompoc	137,670 MWh	136,659 MWh	5,174,582	4,946,977	4,994,207	5,204,146	209,939
Palo Alto	944,003 MWh	915,777 MWh	35,676,035	38,984,088	33,897,880	34,474,944	577,064
Plumas-Sierra	165,751 MWh	161,627 MWh	5,943,491	5,594,669	5,983,559	6,122,239	138,680
Port of Oakland	141,491 MWh	118,987 MWh	3,199,888	3,317,925	5,052,381	4,445,472	(606,909)
Ukiah	118,463 MWh	112,522 MWh	4,364,727	4,281,388	4,324,251	4,313,544	(10,707)
Santa Clara	3,570,304 MWh	4,006,014 MWh	129,532,879	134,163,164	127,000,226	149,425,754	22,425,528
BART	425,645 MWh	437,944 MWh	14,833,785	14,583,578	15,574,075	16,795,173	1,221,098
East Bay Community Energy				5,074,366	0	0	0
Pioneer Community Energy				12,294,830	42,908,333	0	(42,908,333)
Accrued Load Aggregation		_		0	0	0	0
Annual Budget Cost		_	233,822,294	257,514,251	273,858,269	256,029,593	(17,828,676)
Less: Energy Sales							
Alameda	0 MWh	0 MWh	5,451,113	4,067,621	0	0	0
Biggs	0 MWh	0 MWh	10,663	24,980	0	0	0
Gridley	0 MWh	0 MWh	92,177	40,902	0	0	0
Healdsburg	0 MWh	0 MWh	31,458	152,354	0	0	0
Lodi	0 MWh	0 MWh	4,676,818	5,110,400	0	0	0
Lompoc	0 MWh	0 MWh	832,704	949,017	0	0	0
Palo Alto	20 MWh	0 MWh	18,219,961	19,179,008	1,644	0	(1,644)
Plumas-Sierra	39,382 MWh	0 MWh	2,576,272	1,881,531	1,397,140	0	(1,397,140)
Port of Oakland	0 MWh	0 MWh	1,626,201	2,178,334	0	0	0
Ukiah	6,068 MWh	0 MWh	329,786	409,640	235,150	0	(235,150)
Santa Clara	2,775,565 MWh	0 MWh	103,444,960	83,894,294	94,749,641	0	(94,749,641)
BART	17,057 MWh	0 MWh	13,726,659	12,738,406	597,768	0	(597,768)
East Bay Community Energy				4,256,553	0	0	0
Pioneer Community Energy				11,467,852	34,347,266	0	(34,347,266)
Total Energy Sales			151,018,772	146,350,892	131,328,609	0	(131,328,609)
Less: Third Party Revenue							
Customer Revenues					8,561,067	0	(8,561,067)
Third Party Revenue			0	0	8,561,067	0	(8,561,067)
Net Annual Budget Cost to Pa	articipants	=	\$82,803,522	\$111,163,359	\$133,968,593	\$256,029,593	\$122,061,000

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

NORTHERN CALIFORNIA POWER AGENCY Net GHG Obligations Comparative Annual Budget Report

				Proposed	
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Net GHG Obligations					
Alameda	\$0	\$37,445	\$7,659	\$0	(\$7,659)
BART	123,676	0	305,578	263,522	(42,056)
Biggs	5,020	21,851	14,486	0	(14,486)
Gridley	36,809	65,865	122,174	0	(122,174)
Healdsburg	30,784	77,509	102,551	0	(102,551)
Lodi	178,019	1,145,130	391,220	233,433	(157,787)
Lompoc	38,147	0	55,745	0	(55,745)
Ukiah	33,462	46,660	123,559	0	(123,559)
Net Annual Budget Cost to Participants	\$445,917	\$1,394,460	\$1,122,972	\$496,955	(\$626,017)

NORTHERN CALIFORNIA POWER AGENCY Transmission Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Independent System Operator					
Grid Management Charge	\$2,466,609	\$4,076,851	\$3,662,271	\$2,813,086	(\$849,185)
Wheeling Access Charge	96,760,295	103,849,078	104,569,875	110,581,940	6,012,065
Ancillary Services	2,639,380	4,932,224	3,040,303	2,372,540	(667,763)
Other Charges	1,058,438	(1,084,378)	1,549,274	1,321,289	(227,985)
Annual Budget Costs	\$102,924,722	\$111,773,775	\$112,821,723	\$117,088,855	\$4,267,132
Less: Third Party Revenue					
ISO Ancillary Sales	112,440	1,174,129	332,929	225,134	(107,795)
Customer Revenues			2,223,939	0	(2,223,939)
Interest Income	35,416		30,901	30,901	0
Third Party Revenue	147,856	1,174,129	2,587,769	256,035	(2,331,734)
Net Annual Budget Cost to Participants	\$102,776,866	\$110,599,646	\$110,233,954	\$116,832,820	\$6,598,866

NORTHERN CALIFORNIA POWER AGENCY Transmission Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Independent System Operator					
Grid Management Charge	\$2,466,609	\$4,076,851	\$3,662,271	\$2,813,086	(\$849,185)
Wheeling Access Charge	96,760,295	103,849,078	104,569,875	110,581,940	6,012,065
Ancillary Services	2,639,380	4,932,224	3,040,303	2,372,540	(667,763)
Other Charges	1,058,438	(1,084,378)	1,549,274	1,321,289	(227,985)
Annual Budget Costs	\$102,924,722	\$111,773,775	\$112,821,723	\$117,088,855	\$4,267,132
Less: Third Party Revenue					
ISO Ancillary Sales	112,440	1,174,129	332,929	225,134	(107,795)
Customer Revenues			2,223,939	0	(2,223,939)
Interest Income	35,416		30,901	30,901	0
Third Party Revenue	147,856	1,174,129	2,587,769	256,035	(2,331,734)
Net Annual Budget Cost to Participants	\$102,776,866	\$110,599,646	\$110,233,954	\$116,832,820	\$6,598,866

NORTHERN CALIFORNIA POWER AGENCY Management Services -- Legislative & Regulatory FY 2020 Budget

	Legislative		Re	gula	atory	,	Western	Custome	r	Proposed			In	crease/		
		State	F	ederal	State		Federal		Federal	Program	S *		FY 2020	FY 2019	(De	crease)
Advocacy	\$	396,250	\$	341,250 \$	-	. (\$ -	\$	173,000	\$	- :	\$	910,500	\$ 1,092,500 \$;	(182,000)
Legal		12,000		5,000			8,000		20,000		-		45,000	45,000		-
Dues & Memberships		22,376		12,725			6,000		-	2	500		43,601	41,439		2,162
Regulatory Compliance		-		-	300,0	00	-		-		-		300,000	300,000		-
Member Programs		61,400		9,700			-		-	72	500		143,600	123,600		20,000
Miscellaneous		24,307		65,021	8,5	29	25,729		17,057	13	,000		153,642	150,643		2,999
Total costs w/o Labor		516,333		433,696	308,5	29	39,729		210,057	88	,000		1,596,343	1,753,182		(156,839)
Labor		574,655		294,894	150,9	83	150,983		416,240	255	399		1,843,154	1,785,078		58,076
Subtotal		1,090,988		728,590	459,5	12	190,712		626,297	343	399		3,439,497	3,538,260		(98,764)
Administrative & General		179,770		96,777	56,0	69	32,423		103,774	68	457		537,270	586,177		(48,907)
Occupancy Costs		25,902		10,103	4,8	36	4,836		15,046	11	822		72,545	71,796		749
Annual Budget Cost		1,296,660		835,470	520,4	17	227,971		745,117	423	678		4,049,312	4,196,233		(146,922)
Less: Third Party Revenues																
Interest Income		1,792		1,155	7	59	357		2,909	5	828		12,800	12,800		-
Net Annual Budget Cost to Participants	\$	1,294,868	\$	834,315 \$	519,6	57 9	\$ 227,614	\$	742,208	\$ 417	850	\$	4,036,512	\$ 4,183,433	i	(146,922)
FY 2018 Annual Budget Cost		1,248,898		774,170	612,6	91	273,925		848,160	438	389		4,196,233			
Increase/(Decrease)	\$	47,762	\$	61,300 \$	(92,2	75) \$	\$ (45,955)	\$	(103,043)	\$ (14	711)	\$	(146,922)			

^{*} Name changed from Member Services to Customer Programs in FY 2020

Legislative Representation

FY 2020

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 Annual Budget Report

				Proposed		
	FY 2018	FY 2018 FY 2019		FY 2020	Increase/	
	Budget	Actual	Budget	Budget	(Decrease)	
Legislative			-	<u>-</u>	,	
State:						
State Legislature	\$656,765	\$632,987	\$618,051	\$617,458	(\$593)	
Member Programs	285,200	264,101	424,444	473,530	49,086	
Federal:						
U.S. Congress	550,114	455,946	513,332	506,402	(6,930)	
Coalition Development	178,920	132,115	157,735	222,188	64,453	
·	1,670,999	1,485,149	1,713,562	1,819,578	106,016	
Administrative & General	272,591	227,202	276,852	276,547	(305)	
Occupancy Cost - Main HQ Building	32,418	30,906	32,654	36,005	3,351	
Annual Budget Cost	1,976,008	1,743,256	2,023,068	2,132,130	109,062	
Less: Third Party Revenue						
Interest Income	1,224	1,696	2,947	2,947	0	
Other Income	,	150	,	•		
Net Annual Budget Cost to Participants	\$1,974,784	\$1,741,411	\$2,020,121	\$2,129,183	\$109,062	

NORTHERN CALIFORNIA POWER AGENCY Legislative Representation Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)	
State Legislature	Duaget	Actual	Duaget	Dauget	(Decrease)	
Salaries & Benefits	\$361,515	\$371,886	\$322,387	\$319,632	(\$2,755)	
Outside Services						
Legal Services - State Legislative	12,000	0	12,000	12,000	0	
Agency Advocate	168,000	168,000	168,000	168,000	0	
	180,000	168,000	180,000	180,000	0	
Other Costs						
Travel- AGM- Leg/Reg	2,750	7,567	2,750	2,750	0	
Travel- Leg/Reg	4,000	4,741	4,000	4,000	0	
Staff Development -Leg/Reg	4,000	1,648	4,000	4,000	0	
Expedited Mailings	500	0	500	500	0	
Office Furniture/Supplies	2,500	4,303	2,500	2,500	0	
Tech & Other Mtg Exp	6,000	1,689	5,000	5,000	0	
Dues, Subscriptions & Publications	2,500	3,608	2,500	2,500	0	
Legislative Tour	70,000	53,372	70,000	70,000	0	
Capitol Day	10,000	3,638	10,000	10,000	0	
CMUA Dues - NCPA	13,000	12,534	14,414	16,576	2,162	
	115,250	93,100	115,664	117,826	2,162	
	\$656,765	\$632,987	\$618,051	\$617,458	(\$593)	
Member Programs						
Salaries & Benefits	\$143,693	\$141,478	\$195,937	\$255,023	\$59,086	
Outside Services						
Communications Consultant	20,000	10,000	10,000	10,000	0	
Strategic Consultant	10,000	5,057	5,000	5,000	0	
Event Planning Consultant	0	0	120,000	120,000	0	
	30,000	15,057	135,000	135,000	0	
Other Costs						
Travel - AGM - Leg/Reg	1,000	1,547	1,000	1,000	0	
Travel - Leg/Reg	2,200	197	2,200	2,200	0	
Member Travel	30,000	11,512	30,000	20,000	(10,000)	
Meeting Expense	2,857	5,338	2,857	2,857	0	
Annual Meeting	25,000	53,103	25,000	25,000	0	
Dues, Subs & Pubs	3,300	285	3,300	3,300	0	
CFEE Membership	18,000	0	0	0	0	
Strategic Development	900	132	900	900	0	
Strategic Issues Conference	20,000	32,270	20,000	20,000	0	
External Affairs	8,250	3,181	8,250	8,250	0	
	111,507	107,565	93,507	83,507	(10,000)	
	\$285,200	\$264,101	\$424,444	\$473,530	\$49,086	

NORTHERN CALIFORNIA POWER AGENCY Legislative Representation Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)	
U.S. Congress						
Salaries & Benefits - Leg/Reg	\$231,514	\$187,969	\$194,682	\$187,752	(\$6,930)	
Outside Services						
Legal Services	5,000	0	5,000	5,000	0	
Agency Advocate (Ca)	150,000	150,703	150,000	150,000	0	
	155,000	150,703	155,000	155,000	0	
Other Costs						
Travel - AGM	14,500	9,115	14,500	14,500	0	
Travel - Leg/Reg	15,800	4,122	15,800	15,800	0	
Expedited Mailings	2,000	983	2,000	2,000	0	
Office Furniture/Supplies	2,000	1,261	2,000	2,000	0	
APPA/NCPA Annual Legislative Rally	120,000	91,285	120,000	120,000	0	
APPA Winter Rally	7,500	9,002	7,500	7,500	0	
APPA Dues - NCPA	600	600	650	650	0	
Dues & Subscriptions	1,200	905	1,200	1,200	0	
_	163,600	117,273	163,650	163,650	0	
=	\$550,114	\$455,946	\$513,332	\$506,402	(\$6,930)	
Coalition Development						
Salaries & Benefits	\$63,124	\$36,264	\$42,689	\$107,142	\$64,453	
Outside Services						
Transmmission Access	55,000	54,590	55,000	55,000	0	
Other Costs						
Travel - AGM- Leg/Reg	14,250	3,155	14,250	14,250	0	
Travel - Leg/Reg	9,900	4,972	9,900	9,900	0	
Expedited Mailings	200	0	200	200	0	
Meeting Expenses	8,571	5,725	8,571	8,571	0	
ACWA Annual Dues	1,275	1,275	1,275	1,275	0	
NWPPA Annual Dues	3,600	3,600	3,600	3,600	0	
Dues & Subscriptions	6,000	1,550	6,000	6,000	0	
Consumer Federation of America	750	0	0	0	0	
External Affairs	16,250	20,984	16,250	16,250	0	
_	60,796	41,261	60,046	60,046	0	
	\$178,920	\$132,115	\$157,735	\$222,188	\$64,453	

Regulatory Representation

FY 2020 Specific Assumptions and Rationale

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

The Regulatory Program is currently comprised of two budget centers:

<u>Federal Regulatory</u>—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>State Regulatory</u>—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 Annual Budget Report

				Proposed		
	FY 2018	FY 2018 FY 2019		FY 2020	Increase/	
	Budget	Actual	Budget	Budget	(Decrease)	
Regulatory						
Federal	\$179,912	\$211,359	\$226,384	\$190,712	(\$35,672)	
State	541,787	412,573	530,718	459,512	(71,206)	
_	721,699	623,932	757,102	650,223	(106,879)	
Administrative & General	105,459	95,375	116,750	88,492	(28,258)	
Occupancy Cost - Main HQ Building	10,482	12,961	12,764	9,672	(3,092)	
Annual Budget Cost	837,640	732,269	886,616	748,387	(138,229)	
Less: Third Party Revenue						
Interest Income	956	961	1,116	1,116	0	
Net Annual Budget Cost to Participants	\$836,684	\$731,308	\$885,500	\$747,271	(\$138,229)	

NORTHERN CALIFORNIA POWER AGENCY Regulatory Representation Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)	
Federal -					,	
Salaries & Benefits	\$140,183	\$172,728	\$186,655	\$150,983	(\$35,672)	
Outside Services						
Regulatory Counsel	8,000	11,579	8,000	8,000	-	
Strategic Consultant	-	-	-	-	<u>-</u> _	
	8,000	11,579	8,000	8,000	-	
Other Costs						
Travel - AGM	3,300	-	3,300	3,300	-	
Travel - Regulatory	16,500	11,931	16,500	16,500	-	
Staff Development	2,000	81	2,000	2,000	-	
Office Furniture & Computer Supplies	2,000	2,114	2,000	2,000	-	
Tech & Other Mtg Exp.	1,429	-	1,429	1,429	-	
Dues, Subs & Pubs	6,000	12,926	6,000	6,000	-	
Copy & Mailing Expenses	500	-	500	500	-	
	31,729	27,052	31,729	31,729	-	
=	\$179,912	\$211,359	\$226,384	\$190,712	(\$35,672)	
State						
Salaries & Benefits-Leg/Reg	\$230,258	\$194,721	\$222,189	\$150,983	(\$71,206)	
Outside Services						
General Counsel	3,000	-	-	-	-	
Special Counsel (CPUC)	300,000	214,309	300,000	300,000	-	
	303,000	214,309	300,000	300,000	-	
Other Costs						
Travel - AGM	600	24	600	600	-	
Travel - Regulatory	5,000	3,519	5,000	5,000	-	
Office Furniture & Computer Supplies	1,000	-	1,000	1,000	-	
Meeting Expenses	1,429	-	1,429	1,429	-	
Copy and Mailing Expenses	500	-	500	500	-	
-	8,529	3,543	8,529	8,529		
<u>-</u>	\$541,787	\$412,573	\$530,718	\$459,512	(\$71,206)	

Western Representation

FY 2020 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 Annual Budget Report

			Proposed						
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/				
	Budget	Actual	Budget	Budget	(Decrease)				
Federal Power Programs									
Salaries & Benefits	\$294,829	\$126,187	\$324,203	\$416,240	\$92,037				
Outside Services									
Western Contract Support	42,000	42,782	42,000	20,000	(22,000)				
Special Counsel	20,000	-	20,000	20,000	- · ·				
General Counsel	28,000	1,014	-	-	-				
Agency Advocate (Wash DC)	150,000	150,576	153,000	153,000	-				
Strategic Consultant	-	-	-	-	-				
Management Consultant	150,000	98,100	160,000	-	(160,000)				
Other Costs									
Travel - AGM	4,000	385	4,000	4,000	-				
Travel - Western	5,000	833	5,000	8,000	3,000				
Staff Development -Leg/Reg	-	-	-	-	-				
Expedited Mailings	200	-	200	200	-				
Office Furniture/Supplies	2,000	2,823	2,000	2,000	-				
Tech & Other Meeting Expenses	2,857	· -	2,857	2,857	-				
_	698,886	422,701	713,260	626,297	(86,963)				
Administrative & General	116,483	52,091	119,903	103,774	(16,129)				
Occupancy Costs	14,267	4,860	14,997	15,046	49				
Annual Budget Cost	829,636	479,652	848,160	745,117	(103,043)				
Less: Third Party Revenue									
Interest Income	1,878	1,909	2,909	2,909	0				
Net Annual Budget Costs to Participants	\$827,758	\$477,743	\$845,251	\$742,208	(\$103,043)				

Customer Programs

FY 2020 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 Annual Budget Report

				Proposed	
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Customer Programs					
Salaries & Benefits	\$288,440	\$289,188	\$296,336	\$255,399	(\$40,937)
Outside Services					
Legal Services	5,000	0	0	0	0
Public Benefits Efficiency	30,000	0	30,000	60,000	30,000
Other Costs					
Travel & Staff Development	8,500	8,571	8,500	8,500	0
Office Supplies	1,000	960	1,000	1,000	0
Webinars	3,500	1,011	3,500	3,500	0
More Than Smart Work Group	5,000	5,000	5,000	5,000	0
Workshops & Meetings	7,500	2,748	7,500	7,500	0
Efficiency Association Dues	5,000	2,527	2,500	2,500	0
_	353,940	310,005	354,336	343,399	(10,937)
Administrative & General	71,365	63,045	72,672	68,457	(72,672)
Occupancy Cost - Main HQ Building	10,773	11,341	11,381	11,822	(11,381)
Annual Budget Cost	436,078	384,392	438,389	423,678	(14,711)
Less: Third Party Revenue					
Interest Income	2,105	3,346	5,828	5,828	(5,828)
DEED Grant Revenue		1,500	0	•	, ,
Net Annual Budget Cost to Participants	\$433,973	\$379,546	\$432,561	\$417,850	(\$14,711)

Note: Name changed from Member Services to Customer Programs in FY 2020.

Judicial Action

FY 2020 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 Annual Budget Report

				Proposed	
	FY 2018	FY 2018 FY 2019		FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
PRIVILEGED & CONFIDENTIAL					
Power Management Related					
ISO Tariff Rates and Amendments	\$390,000	\$336,663	\$325,000	\$325,000	\$0
PG&E Rates and IA Amendments	150,000	46,493	200,000	200,000	0
Western Rates and Contract Amendments	20,000	0	25,000	25,000	0
Investigations and Refund Proceedings	15,000	1,065	25,000	25,000	0
	575,000	384,221	575,000	575,000	0
Regulatory Related					
Legal Contingency Fund	50,000	0	50,000	50,000	0
Annual Budget Cost	\$625,000	\$384,221	\$625,000	\$625,000	\$0

Totals exclude the CVPIA case budget of \$3,029,006, which is a long-term case funded since FY 2015 for multiple years.

Northern California Power Agency Management Services -- Power Management FY 2020 Budget

	Power			Sas Purchase	Mkt Purchase		Proposed				Increase/
	Management ¹	Project		Program	Project		FY 2020		FY 2019		(Decrease)
Travel & Staff Development	\$ 152,010	\$	- \$	-	\$ -	\$	152,010	\$	166,652	\$	(14,642)
Legal	42,000						42,000		49,000		(7,000)
Other Professional Services	91,251						91,251		83,241		8,010
Brokerage Fees	46,800						46,800		46,800		-
Software & Computer Supplies	158,135						158,135		261,635		(103,500)
Data Comm Lines	8,000						8,000		8,000		-
Miscellaneous Supplies & Materials	268,266				250		268,516		281,162		(12,646)
Total costs w/o Labor	766,462		-	-	250		766,712		896,490		(129,778)
Labor	7,636,645		-	58,219	83,325		7,778,189		7,634,245		143,944
Subtotal	8,403,107		-	58,219	83,575		8,544,901		8,530,735		14,166
Administrative & General	1,757,173		-	13,124	18,984		1,789,281		1,881,630		(92,349)
Occupancy Cost	271,336			2,039	2,963		276,338		273,778		2,560
Power Mgmt Administrative Liquidation	(9,752)		-	4,004	5,748		-		-		-
Liquidation to Plants	(37,109)						(37,109)		(37,365)		256
Annual Budget Cost	10,384,755		-	77,386	111,270		10,573,411		10,648,778		(75,367)
Less: Third Party Revenues Interest Income	37,381		-	361	5,157		42,899		45,120		(2,221)
Net Annual Budget Cost to Participants	\$ 10,347,374	\$	- \$	77,025	\$ 106,113	\$	10,530,512	\$	10,603,658	\$	(73,146)
FY 2019 Annual Budget Cost	10,418,638	74	3	77,420	106,857		10,603,658				
Increase/(Decrease)	\$ (33,883)	\$ (74	3) \$	(34)	\$ 4,413	\$	(30,247)				

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 2020 Budget

	Power Management											
	Power Mgt		System Control &	Forecasting,	Industry R	estr &	Contract		Fuel	Total Power Mgt	Total Power Mgt	Increase/
	Adm	inistration	Load Dispatch	Planning, PreSch	Reg Affa	airs	Administration		Acquisition	FY 2020	FY 2019	(Decrease)
Travel & Staff Development	\$	20,690	\$ 65,700	\$ 47,899	\$	5,000	\$ 12,721	\$	- 9	152,010	\$ 166,652	\$ (14,642)
Legal	Ψ	20,000	Ψ 00,700	Ψ 17,000		1,500	30,500	Ψ	`	42,000	49,000	(7,000)
Other Professional Services		6,000	38,667	37,884			8,700			91,251	80,741	10,510
Brokerage fees				46,800						46,800	46,800	-
Software & Computer Supplies			74,400	83,735						158,135	261,635	(103,500)
Data Comm lines			8,000							8,000	8,000	-
Miscellaneous supplies & materials		3,000	167,651	57,515	3	32,900	7,200		-	268,266	280,912	(12,646)
Total costs w/o Labor		29,690	354,418	273,833	4	19,400	59,121		-	766,462	893,740	(127,278)
Labor		520,208	4,223,466	1,954,931	26	31,252	645,252		31,536	7,636,645	7,494,851	141,794
Subtotal		549,898	4,577,884	2,228,764	3′	10,652	704,373		31,536	8,403,107	8,388,591	14,516
Administrative & General			1,029,884	480,072	7	71,281	172,624		3,312	1,757,173	1,847,430	(90,257)
Occupancy Cost			159,782	72,011	,	11,179	28,272		92	271,336	268,759	2,577
Power Mgmt Administrative Liquidation		(549,898)	314,867	153,296	2	21,367	48,447		2,169	(9,752)	(11,396)	1,644
Liquidation to Plants									(37,109)	(37,109)	(37,365)	256
Annual Budget Cost		-	6,082,417	2,934,143	41	14,479	953,716		-	10,384,755	10,456,019	(71,264)
Less: Third Party Revenues												
Interest Income			18,443	10,529		2,430	5,979			37,381	37,381	-
Net Annual Budget Cost to Participants	\$	-	\$ 6,063,974	\$ 2,923,614	\$ 41	2,049	\$ 947,737	\$	- (10,347,374	\$ 10,418,638	\$ (71,264)
FY 2019 Annual Budget Cost			6,088,973	2,764,638	43	36,383	1,128,644		_	10,418,638		
Increase/(Decrease)	\$	-	\$ (6,556)	\$ 169,505	\$ (2	21,904)	\$ (174,928)	\$	- ((33,883)		

POWER MANAGEMENT ADMINISTRATION

The Power Management Group consists of one Program and four Subprograms: System Control and Load Dispatch; Forecasting, Portfolio/Pool Energy Management and Scheduling; Contracts, Interconnection Services and External Affairs; and Industry Restructuring and Regulatory Affairs. There are currently 25 full time staff positions filled reflecting no changes from last year. In addition to the Program and Subprograms described above, which are managed and administered through Power Management, 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 "Nexant" cost allocation methodology.

Goals

The Goal of the Power Management Business Unit, as administered through the Administration subprogram is to enhance the 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 contract and the NCPA/Member Schedule 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 3 to 4 Fee for Service Entities (MEID, PCWA, PCE, and TBD)
- Provide staff support to internal Risk Management Committee and Risk Oversight Committee.

Efficiency Measures

- Activities of 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.
- Fee for Service activities do not disrupt or negatively impact services to members
- Business unit budget and staffing levels for FY 2020 are kept consistent with Commission direction.
- Ensure that ISO tariff and Business Practice Manuals associated with MRTU are translated into NCPA systems and operational practices.
- Communicate and ensure compliance with Agency wide policies and procedure.

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Northern California Power Agency Power Management Administration Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Power Management Administration					
Salaries & Benefits	\$556,659	\$561,750	\$598,979	\$520,208	(\$78,771)
Travel & Staff Development	18,390	6,173	18,143	20,690	2,547
Outside Services					
Legal Services	30,000	2,814	0	0	0
Other	8,000	0	8,000	6,000	(2,000)
Other					0
Mobile Phone Services	1,200	447	1,200	600	(600)
Office Supplies	1,600	357	1,600	1,800	200
Software	1,000	0	1,000	0	(1,000)
Memberships	300	0	300	0	(300)
Books, Tapes and Subscriptions	1,000	3,375	1,000	200	(800)
Equipment Repair and Maintenance	1,000	0	1,000	0	(1,000)
Minor Equipment and Tools	2,000	1,882	2,000	400	(1,600)
	\$621,149	\$576,798	\$633,222	\$549,898	(\$83,324)
Liquidated Pwr Mgmt Admin	(621,149)	(576,798)	(633,222)	(549,898)	83,324
Net Annual Budget Cost to Participants	<u>s - s</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 (approximately 150) for NCPA Operating Entities (NCPA Pool, SVP, City of Roseville, BART), and third parties. Verify and submit to CAISO daily schedules for LEC participants (approximately 100 daily).
- Hour Ahead Scheduling: Verify for correctness, and coordinate with counter-parties 150 hourly demand, energy, ancillary service and transmission usage schedules per hour (approximately 1.3 million schedules annually).
- 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 Etagging, 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 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Dispatch & Real-Time Resource Management	\$2,364,064	\$2,345,415	\$2,403,086	\$2,439,941	\$36,855
Schedule Coordination	2,361,767	2,393,727	2,512,352	2,619,988	107,636
System Control & Data Acquisition	954,653	837,601	956,201	821,444	(134,757)
WECC/NERC Compliance & Participation	183,968	154,171	235,777	201,044	(34,733)
Annual Budget Cost	5,864,452	5,730,914	6,107,416	6,082,417	(24,999)
Less: Third Party Revenue					
Interest Income (Operating Account)	8,566	9,177	18,443	18,443	0
Net Annual Budget Cost to Participants	\$5,855,886	\$5,721,737	\$6,088,973	\$6,063,974	(\$24,999)

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

	FY 2018	FY 2018	FY 2019	Proposed FY 2020	Increase/
	Budget	Actual	Budget	Budget	Increase/ (Decrease)
Dispatch & Real-Time Resource Management	Budget	Actual	buuget	Buuget	(Decrease)
Salaries & Benefits					
Dispatch & Scheduling	\$1,522,681	\$1,545,282	\$1,560,090	\$1,600,764	\$40,674
Information Systems	159,359	181,406	162,619	186.266	23,647
Travel & Staff Development	31,000	24,582	25,000	25,000	0
Legal	7,000	0	20,000	0	0
Dues & Subscriptions	13,000	975	1,000	1,000	0
Office Furniture & Equipment	4,000	436	4,000	4,000	0
Office Supplies	2,700	2,976	2,700	2,700	0
··	8,400	2,970	8,400	8,400	0
Computer Spare Parts Regulatory Fees & Permits	600	619	600	625	25
Pwr Mgmt Admin Liquidation	139,788	142,366	141,470	125,782	(15,688)
FWI MIGHIL Admin Liquidation	1,888,528	1,898,642	1,905,879	1,954,537	48,658
Administrative & General		, ,	, ,		
	414,548	392,076	432,921	419,513	(13,408)
Occupancy Cost - Main HQ Building	60,988 \$2,364,064	54,697 \$2,345,415	64,286 \$2,403,086	65,891 \$2,439,941	1,605 \$36,855
Schedule Coordination					
Salaries & Benefits					
Dispatch & Scheduling	\$1,323,174	\$1,498,180	\$1,502,319	\$1,550,711	\$48,392
Information Systems	364,963	255,318	308,024	379,515	71,491
Travel & Staff Development	20,300	6,150	18,000	18,000	0
Office Furniture & Equipment	2,500	4,689	1,500	1,500	0
Dues/Subscriptions	3,800	4,049	4,400	4,400	0
Special Equipment & Tools	1,000	0	500	500	0
Office Supplies, Maintenance & Miscs. Expenses	1,000	1,082	500	500	0
Pwr Mgmt Admin Liquidation	137,229	143,435	147,150	134,474	(12,676)
	1,853,966	1,912,903	1,982,393	2,089,600	107,207
Administrative & General	439,012	419,675	460,293	457,477	(2,816)
Occupancy Cost - Main HQ Building	68,789	61,149	69,666	72,911	3,245
	\$2,361,767	\$2,393,727	\$2,512,352	\$2,619,988	\$107,636

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

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
System Control And Data Acquisition					
Salaries & Benefits					
Information Systems	\$421,555	\$398,333	\$359,888	\$361,927	\$2,039
Dispatch & Scheduling	7,241	8,639	7,848	7,932	84
Outside Services					
Contract/Program Consulting	0	370	0	0	0
Network Services	25,000	14,855	20,000	20,000	0
Metering Service	25,000	18,054	18,667	18,667	0
Travel & Staff Development	17,100	4,006	15,100	14,600	(500)
Data Com Lines	17,000	7,650	8,000	8,000	0
Software Licenses	50,000	47,592	45,000	50,000	5,000
Disaster Recovery Center	1,500	0	1,500	4,488	2,988
Supplies	1,000	98	1,000	1,000	0
Computer Hardware	15,000	8,020	15,000	15,000	0
Hardware Contract SCADA	0	6,000	0	0	0
Communication Services - Internet	8,000	7,963	13,000	13,000	0
Communication Services - Intranet	120,000	104,367	120,000	120,000	0
Property Insurance	3,847	0	4,301	2,408	(1,893)
Special Equipment & Tools	5,000	6,456	1,000	1,000	0
Emergency Gen. Fuel/Maint.	2,300	2,445	1,600	1,630	30
Computer Hardware (>\$5K)	15,000	11,213	109,000	0	(109,000)
Pwr Mgmt Admin Liquidation	58,717	52,370	59,406	43,995	(15,411)
	793,260	698,431	800,310	683,647	(116,663)
Administrative & General	142,769	123,497	139,459	121,344	(18,115)
Occupancy Cost - Main HQ Building	18,624	15,673	16,432	16,453	21
	\$954,653	\$837,601	\$956,201	\$821,444	(\$134,757)
WECC/NERC Compliance & Participation					
Salaries & Benefits	\$123,866	\$105,335	\$133,820	\$136,351	\$2,531
WECC Membership Dues/Security	900	6,973	900	900	0
Travel	8,100	4,199	8,100	8,100	0
Internal Compliance Support	5,000	0	9,000	9,000	0
Pwr Mgmt Admin Liquidation	11,020	9,444	12,173	10,616	(1,557)
	148,886	125,951	163,993	164,967	974
Administrative & General	30,801	24,913	60,065	31,550	(28,515)
Occupancy Cost - Main HQ Building	4,281	3,307	11,719	4,527	(7,192)
·	\$183,968	\$154,171	\$235,777	\$201,044	(\$34,733)

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, Pioneer Community Energy and East Bay Community 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) 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 (e.g. BART, Merced Irrigation District, Pioneer Community Energy, and East Bay Community Energy), day-ahead resource coordination/validation/scheduling for TID, SVP and ROS, 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.

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Forecasting	\$629,097	\$566,245	\$645,375	\$631,611	(\$13,764)
Resource Planning, Optimization Risk Analysis & Mgmt	504,989	509,808	551,822	566,673	14,851
Power & Fuel Transaction	137,643	120,512	146,114	145,149	(965)
Pre-Scheduling	810,089	793,083	844,303	845,737	1,434
Power Pool Operations & Settlement Standards	391,961	330,532	404,754	563,668	158,914
Facilities Agreement Administration	173,238	137,255	182,799	181,305	(1,494)
Annual Budget Cost	2,647,017	2,457,435	2,775,167	2,934,143	158,976
Less: Third Party Revenue					
Interest Income	4,081	6,126	10,529	10,529	0
Net Annual Budget Cost to Participants	\$2,642,936	\$2,451,309	\$2,764,638	\$2,923,614	\$158,976

			Proposed			
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/	
	Budget	Actual	Budget	Budget	(Decrease)	
Forecasting						
Salaries & Benefits						
Power Management	\$348,345	\$348,609	\$364,748	\$371,225	\$6,477	
Travel & Staff Development	25,000	10,357	38,070	30,070	(8,000)	
Professional Services	42,100	40,528	10,500	5,000	(5,500)	
Software	31,500	28,033	26,000	26,000	0	
Office Supplies	30	0	0	0	0	
Books, Tapes and Subscription	2,500	400	2,300	2,300	0	
Joint NG - IHS CERA	0	0	0	0	0	
Tactical Market Info - Platts, NGI	24,350	430	44,500	50,300	5,800	
Legal Services	2,500	0	0	0	0	
Pwr Mgmt Admin Liquidation	38,076	34,723	38,977	33,351	(5,626)	
	514,401	463,080	525,095	518,246	(6,849)	
Administrative & General	101,240	91,072	106,075	99,137	(6,938)	
Occupancy Cost - Main HQ Building	13,456	12,093	14,205	14,228	23	
	\$629,097	\$566,245	\$645,375	\$631,611	(\$13,764)	
Resource Planning, Optimization, Risk Analysis & Mgmt						
Salaries & Benefits						
Power Management	\$322,994	\$353,382	\$343,542	\$349,416	\$5,874	
Travel & Staff Development	7,500	411	10,989	10,989	0	
Legal Services	0	0	0	0	0	
Professional Services	9,874	0	14,874	32,884	18,010	
Software	34,538	19,366	36,250	37,750	1,500	
Tactical Market Info / Data	0	0	1,000	1,000	0	
Mobile Phone Service	1,968	2,178	2,200	2,400	200	
Office Supplies	50	0	2,000	50	(1,950)	
Copy, Printing, Binding	100	0	100	100	0	
Books, Tapes and Subscription	125	2,405	2,300	125	(2,175)	
Equip Repair & Maintenance	390	208	390	390	0	
Minor Equipment & Tools	0	5,136	0	0	0	
Pwr Mgmt Admin Liquidation	30,179	31,053	33,166	29,927	(3,239)	
	407,718	414,139	446,811	465,031	18,220	
Administrative & General	85,300	84,143	92,374	88,892	(3,482)	
Occupancy Cost - Main HQ Building	11,971	11,526	12,637	12,750	113	
-	\$504,989	\$509,808	\$551,822	\$566,673	\$14,851	

	FY 2018	FY 2018	FY 2019	Proposed FY 2020	Increase/
Davier 9 First Transactions	Budget	Actual	Budget	Budget	(Decrease)
Power & Fuel Transactions					
Salaries & Benefits	\$404.00 7	000.004	# 407.070	# 400 004	M4 504
Power Management	\$101,227	\$90,004	\$107,370	\$108,931	\$1,561
Pwr Mgmt Admin Liquidation	8,092	7,296	8,609	7,492	(1,117)
	109,319	97,300	115,979	116,423	444
Administrative & General	24,654	20,378	26,261	24,846	(1,415)
Occupancy Cost - Main HQ Building	3,670	2,834	3,874	3,880	6
	\$137,643	\$120,512	\$146,114	\$145,149	(\$965)
Pre-Scheduling					
Salaries & Benefits					
Power Management	\$501,432	\$534,752	\$529,097	\$536,928	\$7,831
Information Systems	18,977	0	17,273	32,182	14,909
Travel & Staff Development	6,440	1,011	6,840	6,840	0
Brokerage Fees	46,500	45,900	46,800	46,800	0
Software	5,970	8,741	16,800	16,800	0
Mobile Phone Service	1,548	1,586	1,600	1,800	200
Office Supplies	50	0	833	50	(783)
Minor Equipment & Tools	0	5,044	0	0	, O
Professional Services	4,500	0	0	0	0
Office Furniture & Equipment	19,373	0	8,957	0	(8,957)
Pwr Mgmt Admin Liquidation	48,345	48,396	50,369	44,116	(6,253)
- -	653,135	645,430	678,569	685,516	6,947
Administrative & General	137,504	129,986	145,234	139,235	(5,999)
Occupancy Cost - Main HQ Bldg	19,450	17,667	20,500	20,986	486
•	\$810,089	\$793,083	\$844,303	\$845,737	\$1,434

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Power Pool Operations & Settlement Standards					
Salaries & Benefits					
Power Management	\$144,230	\$177,812	\$153,314	\$156,575	\$3,261
Information Systems	144,991	66,150	142,645	263,813	121,168
Mobile Phone Services	0	2,021	2,185	2,185	0
Pwr Mgmt Admin Liquidation	23,119	19,940	23,905	29,065	5,160
	312,340	265,923	322,049	451,638	129,589
Administrative & General	69,089	56,566	72,002	96,760	24,758
Occupancy Cost - Main HQ Bldg	10,532	8,043	10,703	15,270	4,567
	\$391,961	\$330,532	\$404,754	\$563,668	\$158,914
Facilities Agreement Administration					
Salaries & Benefits					
Power Management	\$127,356	\$101,668	\$134,155	\$135,861	\$1,706
Pwr Mgmt Admin Liquidation	10,180	8,241	10,757	9,345	(1,412)
3	137,536	109,909	144,912	145,206	294
Administrative & General	31,071	23,945	32,998	31,202	(1,796)
Occupancy Cost - Main HQ Bldg	4,631	3,401	4,889	4,897	8
· ·	\$173,238	\$137,255	\$182,799	\$181,305	(\$1,494)

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

Efficiency Measures

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

CONTRACT ADMINISTRATION, INTERCONNECTION SERVICES AND EXTERNAL AFFAIRS

Goals

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

Measurement Parameters

Volume Measures

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

Efficiency Measures

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

Subprogram Structure and Functional Responsibilities

• Contract Maintenance, Negotiation and Administration and Litigation Support

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

- Market Power Purchase Administration and management associated with the purchase or sale of electric power, associated transmission, ancillary services and other related services. This includes maintenance of NCPA's version of the industry standard EEI and WSPP contracts.
- ISO operations oversight Support to settlements regarding the oversight, administration and management relating
 to CAISO charge types including grid management, wheeling, imbalance energy, ancillary services and RMR
 services by and to the CAISO. This includes analysis, interpretation, advocacy and negotiation of matters associated
 with specific CAISO charges made to the NCPA as a Scheduling Coordinator or as a Metered Subsystem Aggregator
 (MSSA).
- The maintenance of the 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:

- Post-2004 Western Marketing Plan
- SMUD\Western Control Area, including ancillary service sales
- California Independent System Operator (CAISO) Market Redesign and Technology Update (MRTU)

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

Pooling Agreement Coordination and Administration

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

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

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Industry Restructuring & Regulatory Affairs					
Salaries & Benefits	\$262,988	\$182,592	\$275,489	\$261,252	(\$14,237)
Travel & Staff Development	14,239	2,953	11,660	5,000	(6,660)
Legal Services	11,500	0	11,500	11,500	0
Other					
Mobile Phone Services	1,200	0	0	0	0
Office Supplies	1,400	0	1,400	1,400	0
Copy, Printing and Binding	500	0	500	500	0
Books, Tapes and Subscriptions	30,000	30,602	31,000	31,000	0
Memberships	0	0	0	0	0
Pwr Mgmt Admin Liquidation	25,726	17,521	26,584	21,367	(5,217)
	347,553	233,668	358,133	332,019	(26,114)
Administrative & General	67,709	45,048	71,271	71,281	10
Occupancy Cost - Main HQ Building	8,912	5,763	9,409	11,179	1,770
Annual Budget Cost	424,174	284,479	438,813	414,479	(24,334)
Less: Third Party Revenue					
Interest Income	854	1,547	2,430	2,430	0
Net Annual Budget Cost to Participants	\$423,320	\$282,932	\$436,383	\$412,049	(\$24,334)

Northern California Power Agency Contract Administration Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Contract Maint. Negotiation and Administration					
and Litigation Support	\$873,873	\$630,034	\$844,435	\$678,070	(\$166,365)
TANC Representation & Advocacy	17,722	7,753	18,435	29,604	11,169
Western Representation & Advocacy	159,539	138,769	165,552	136,198	(29,354)
Pooling Agreement Coordination & Administration	100,694	34,788	106,201	109,844	3,643
Annual Budget Cost	1,151,828	811,344	1,134,623	953,716	(180,907)
Less: Third Party Revenue					
Interest Income	2,318	3,954	5,979	5,979	0
Net Annual Budget Cost to Participants	\$1,149,510	\$807,390	\$1,128,644	\$947,737	(\$180,907)

Northern California Power Agency Contract Administration Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Contract Maint. Negotiation and Administration			-	-	
and Litigation Support					
Salaries & Benefits	\$602,708	\$453,444	\$568,559	\$462,299	(\$106,260)
Travel & Staff Development	7,083	4,296	5,698	5,698	0
Legal Services	35,000	117	35,000	28,000	(7,000)
Mobile Phone Services	1,200	447	1,200	1,200	0
Office Supplies	1,500	2,718	1,000	1,000	0
Copy, Printing and Binding	200	0	200	200	0
Books, Tapes and Subscriptions	200	3,718	5,000	3,000	(2,000)
Equipment Repair and Maintenance	1,300	0	1,300	1,300	0
Minor Equipment and Tools	200	0	200	200	0
Pwr Mgmt Admin Liquidation	51,910	37,672	49,564	34,589	(14,975)
	701,301	502,412	667,721	537,486	(130,235)
Administrative & General	150,902	111,655	153,746	120,997	(32,749)
Occupancy Cost - Main HQ Building	21,670	15,967	22,968	19,587	(3,381)
	\$873,873	\$630,034	\$844,435	\$678,070	(\$166,365)
TANC Representation & Advocacy Salaries & Benefits					
Power Management	\$12,817	\$6,142	\$13,314	\$20,951	\$7,637
Travel & Staff Development	623	0	623	623	0
Copy, Printing and Binding	50	0	50	50	0
Books, Tapes and Subscriptions	50	0	50	50	0
Pwr Mgmt Admin Liquidation	1,082	498	1,125	1,491	366
	14,622	6,640	15,162	23,165	8,003
Administrative & General	2,750	1,019	2,904	5,515	2,611
Occupancy Cost - Main HQ Building	350	94	369	924	555
	\$17,722	\$7,753	\$18,435	\$29,604	\$11,169

Northern California Power Agency Contract Administration Comparative Annual Budget Report

	FY 2018	FY 2018	FY 2019	Proposed FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Western Representation & Advocacy			<u>-</u>		, ,
Salaries & Benefits	\$104,507	\$92,148	\$106,330	\$84,319	(\$22,011)
Travel & Staff Development	6,029	3,441	6,029	4,000	(2,029)
Legal Services	2,500	0	2,500	2,500	0
Other Professional Services	6,500	8,659	8,700	8,700	0
Mobile Phone Services	0	447	0	0	0
Copy, Printing and Binding	100	0	100	100	0
Books, Tapes and Subscriptions	100	0	100	100	0
Pwr Mgmt Admin Liquidation	9,571	8,487	9,923	6,859	(3,064)
·	129,307	113,182	133,682	106,578	(27,104)
Administrative & General	26,562	22,564	27,996	25,370	(2,626)
Occupancy Cost - Main HQ Building	3,670	3,023	3,874	4,250	376
	\$159,539	\$138,769	\$165,552	\$136,198	(\$29,354)
Pooling Agreement Coordination & Administration					
Salaries & Benefits	\$70,476	\$24,753	\$74,332	\$77,683	\$3,351
Travel & Staff Development	2,400	0	2,400	2,400	0
Pwr Mgmt Admin Liquidation	5,825	2,007	6,152	5,508	(644)
	78,701	26,760	82,884	85,591	2,707
Administrative & General	19,022	6,989	20,181	20,742	561
Occupancy Cost - Main HQ Building	2,971	1,039	3,136	3,511	375
	\$100,694	\$34,788	\$106,201	\$109,844	\$3,643

NCPA Green Power Program (NGPP)

FY 2020

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

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

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

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

Northern California Power Agency Green Power Project Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Green Power Project	-				,
Outside Services					
Legal Services	12,500	0	0	0	0
Other Professional Services	2,500	0	2,500	0	(2,500)
Pwr Mgmt Admin Liquidation	1,199	0	200	0	(200)
	16,199	0	2,700	0	(2,700)
Administrative & General	1,547	0	264	0	(264)
Annual Budget Cost	17,746	0	2,964	0	(2,964)
Less: Third Party Revenue					
Interest Income	837	818	2,221	0	(2,221)
Net Annual Budget Cost to Participants	\$16,909	(\$818)	\$743	\$0	(\$743)

Gas Purchase Program (GPP)

FY 2020

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

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

Northern California Power Agency Gas Purchase Program Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Gas Purchase Program					
Salaries & Benefits	\$53,684	\$44,134	\$57,275	\$58,219	\$944
Legal Services	12,500	0	0	0	0
Other					
Allocated Power Management Admin	5,290	3,578	4,592	4,004	(588)
	71,474	47,712	61,867	62,223	356
Administrative & General	14,610	10,612	13,866	13,124	(742)
Occupancy Cost - Main HQ Building	2,047	1,538	2,048	2,039	(9)
Annual Budget Cost	88,131	59,862	77,781	77,386	(395)
Interest Revenue	119	247	361	361	0
Net Annual Budget Cost to Participants	\$88,012	\$59,615	\$77,420	\$77,025	(\$395)

Market Purchase Program (MPP)

FY 2020

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

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

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

This program is available to all NCPA members.

Northern California Power Agency Market Purchase Program Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Market Purchase Project				<u>-</u>	
Salaries & Benefits	\$76,845	\$65,415	\$82,119	\$83,325	\$1,206
Legal Services	21,000	0	0	0	0
Other					
Office Supplies	25	0	25	25	0
Copy, Printing & Binding	100	0	100	100	0
Books, Tapes & Subscriptions	125	0	125	125	0
Pwr Mgmt Admin Liquidation	7,841	5,303	6,604	5,748	(856)
	105,936	70,718	88,973	89,323	350
Administrative & General	21,284	15,444	20,070	18,984	(1,086)
Occupancy Cost - Main HQ Building	2,921	2,194	2,971	2,963	(8)
Annual Budget Cost	130,141	88,356	112,014	111,270	(744)
Less: Third Party Revenue					
Interest Income	1,502	448	5,157	5,157	0
Net Annual Budget Cost to Participants	\$128,639	\$87,908	\$106,857	\$106,113	(\$744)

Fuel Acquisition & Management

FY 2020

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 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
Fuel Acquisition Cost (CT1 & CT2)	<u>-</u>				
Salaries & Benefits					
Pwr Accts Admin	\$29,513	\$49,358	\$31,096	\$31,536	\$440
Legal Services	51,000	0	0	0	0
Other:					
Office Supplies	25	0	0	0	0
Copy, Printing & Binding	31	0	31	0	(31)
Books, Tapes & Subscriptions	0	5,769	0	0	0
Pwr Mgmt Admin Liquidation	7,959	4,469	2,496	2,169	(327)
	88,528	59,596	33,623	33,705	82
Administrative & General	11,281	12,160	3,650	3,312	(338)
Occupancy	262	1,606	92	92	0
	\$100,071	\$73,362	\$37,365	\$37,109	(\$256)
Liquidation of Fuel Acquisition to CT1 & CT2	(\$100,071)	(\$73,362)	(\$37,365)	(\$37,109)	\$256
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 Energy Risk Management Comparative Annual Budget Report

	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Increase/ (Decrease)
ROC, IROC Meetings & Activities Counter-party Credit Review & Analysis	\$58,422 148,414	\$35,447 137,171	\$111,318 148,267	\$51,651 160,093	(\$59,667) 11,826
Annual Budget Cost	206,836	172,618	259,585	211,744	(47,841)
Less: Third Party Revenue					
Interest Income	2,006	3,098	4,708	4,708	0
Enterprise Application Cost Sharing	0	42,376	0	0	0
Net Annual Budget Cost to Participants	\$204,830	\$127,144	\$254,877	\$207,036	(\$47,841)

Northern California Power Agency Energy Risk Management Comparative Annual Budget Report

				Proposed	
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
ROC, IROC Meetings & Activities					
Salaries & Benefits					
Risk Management	\$58,525	\$53,724	\$60,618	\$61,345	\$727
Power Accounts Administration	0	1,156	0	0	0
Administrative Services	11,944	0	78,298	10,536	(67,762)
	70,469	54,880	138,916	71,881	(67,035)
Travel & Staff Development	6,500	2,146	9,000	8,000	(1,000)
Legal Services	12,000	0	5,000	5,000	0
Other Professional Services	7,500	0	7,500	0	(7,500)
Office Supplies	0	16	25,000	0	(25,000)
••	96,469	57,042	185,416	84,881	(100,535)
Administrative & General	17,908	12,056	33,092	16,082	(17,010)
Occupancy Cost - Main HQ Building	2,466	1,796	4,128	2,340	(1,788)
	116,843	70,894	222,636	103,303	(119,333)
Allocated ROC, IROC Meetings & Activities to A&G	(58,422)	(35,447)	(111,318)	(51,652)	59,666
•	\$58,422	\$35,447	\$111,318	\$51,651	(\$59,667)
Counter-party Credit Review & Analysis					
Salaries & Benefits					
Energy Risk Management	\$58,525	\$64,111	\$60,618	\$61,345	\$727
Information Systems	0	0	4,561	18,633	\$14,072
	58,525	64,111	65,179	79,978	14,799
Risk Management Enterprise Application	68,250	52,972	60,000	55,000	(5,000)
	126,775	117,083	125,179	134,978	9,799
Administrative & General	19,552	18,092	20,784	22,307	1,523
Occupancy Cost - Main HQ Building	2,087	1,996	2,304	2,808	504
•	\$148,414	\$137,171	\$148,267	\$160,093	\$11,826
				· · ·	

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 bookouts 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

				Proposed	
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Deal Control Validation & Monitoring	\$303,253	\$210,204	\$360,804	\$397,783	\$36,979
ISO Data Validation & Monitoring	471,124	321,017	580,588	582,133	1,545
Annual Budget Cost	774,377	531,221	941,392	979,916	38,524
Less: Third Party Revenue					
Interest Income	1,536	3,154	5,156	5,156	0
Net Annual Budget Cost to Participants	\$772,841	\$528,067	\$936,236	\$974,760	\$38,524

Northern California Power Agency Settlements Comparative Annual Budget Report

			Proposed				
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/		
	Budget	Actual	Budget	Budget	(Decrease)		
Deal Control Validation & Monitoring							
Salaries & Benefits							
Information Systems	\$75,229	\$98,360	\$97,680	\$113,587	\$15,907		
Power Accounts Administration	152,138	64,202	171,381	193,209	21,828		
	227,367	162,562	269,061	306,796	37,735		
Administrative & General	64,029	40,356 77,824		77,414	(410)		
Occupancy Cost - Main HQ Building	11,857	7,286	13,919	13,573	(346)		
	\$303,253	\$210,204	\$360,804	\$397,783	\$36,979		
ISO Data Validation & Monitoring							
Salaries & Benefits							
Information Systems	\$49,672	\$0	\$61,612	\$55,717	(\$5,895)		
Power Accounts Administration	298,356	241,520	365,199	372,583	7,384		
	348,028	241,520	426,811	428,300	1,489		
Travel & Staff Development	5,280	3,718	6,695	6,695	0		
·	353,308	245,238	433,506	434,995	1,489		
Administrative & General	99,414	64,102	124,812	123,923	(889)		
Occupancy Cost - Main HQ Building	18,402	11,677	22,270	23,215	945		
. ,	\$471,124	\$321,017	\$580,588	\$582,133	\$1,545		

Northern California Power Agency Integrated System Support Comparative Annual Budget Report

				Proposed		
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/	
	Budget	Actual	Budget	Budget	(Decrease)	
Integrated System Support						
Travel & Meetings	\$0	\$16	\$0	\$0	\$0	
Outside Services						
Legal Services						
Custom Programming	15,000	0	0	0	0	
Hardware Maintenance	30,000	5,454	30,000	30,000	0	
Software Maintenance	37,800	10,985	67,500	67,500	0	
Data Services	0	0	0	0	0	
Other						
Data Supplies	5,000	400	5,000	5,000	0	
Computer Hardware	150,000	87,470	125,000	100,000	(25,000)	
Hardware Contracts	40,000	30,057	10,000	10,000	0	
Communication Services - Internet	2,000	0	0	0	0	
Communication Services - Intranet	11,000	9,750	11,000	11,000	0	
	290,800	144,132	248,500	223,500	(25,000)	
Administrative & General	27,762	12,468	24,350	19,661	(4,689)	
Annual Budget Cost	318,562	156,600	272,850	243,161	(29,689)	
Less: Third Party Revenue						
Interest Income	1,994	2,206	3,690	3,690	0	
Net Annual Budget Cost to Participants	\$316,568	\$154,394	\$269,160	\$239,471	(\$29,689)	

NORTHERN CALIFORNIA POWER AGENCY

Participant Pass-Through Costs

Participant Pass-Through Costs are miscellaneous energy related costs of one of 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, Member Services 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 Annual Budget Report

			Proposed		
	FY 2018	FY 2018	FY 2019	FY 2020	Increase/
	Budget	Actual	Budget	Budget	(Decrease)
Dues:					
APPA	\$271,537	\$282,333	\$302,565	\$314,461	\$11,896
SEPA	20,000	19,000	19,000	19,000	-
DEED	24,000	-	24,051	24,289	238
CEE	10,000	10,812	10,000	10,000	-
-	325,537	312,145	355,616	367,750	12,134
Subscriptions:					
Joint NG - IHS Energy (CERA)	-	-	-	-	-
Tactical Mkt Info - Platts	11,250	8,066	10,500	10,500	-
Tactical Mkt Info - NGI	7,500	6,615	7,500	7,500	-
Pexos Maintenance/Solver Fee	-	-	-	-	-
· · · · · · · · · · · · · · · · · · ·	18,750	14,681	18,000	18,000	-
Transmission Services:					
TANC - SOT	80,256	175,942	173,354	89,000	(84,354)
Bay Area Transmission (BAMx)	657,500	574,026	657,500	657,500	-
BART Transmission Consulting	180,000	66,493	180,000	180,000	-
BAMx Administrative Fee	-	7,500	-	-	-
60 Kv Facilities Charges (Biggs)	3,864	4,663	4,700	4,700	-
- · · · · · · · · · · · · · · · · · · ·	921,620	828,624	1,015,554	931,200	(84,354)
Distribution:					
Meter Maintenance General - TriMark	119,000	111,313	120,000	142,000	22,000
Meter Maint/Repair	-	1,745	· -	-	-
Meter Replacement Project	-	(9,249)	-	-	-
•	119,000	103,809	120,000	142,000	22,000
WREGIS:	·	•	,	•	•
Certificate Transfer Fees	5,000	7,440	5,000	5,000	-
Certificate Transfer Fees - WAPA	5,000	3,118	5,000	5,000	-
-	10,000	10,558	10,000	10,000	-
Customer Programs Projects: *	·	•	,	•	
Public Benefits Database	41,000	26,142	-	-	-
Energy Efficiency Reporting Tool	· -	-	100,000	41,497	(58,503)
Flex Lab R&D	10,000	-	· -	-	-
Upstream LED Rebate Project	· -	-	_	-	-
Energy Efficiency Target	80,000	-	_	-	-
LCFS Auction Support Services	· -	-	_	50,000	50,000
·· -	131,000	26,142	100,000	91,497	(8,503)
Annual Budget Cost	\$1,525,907	\$1,295,959	\$1,619,170	\$1,560,447	(\$58,723)

^{*} Name changed from Members Services Projects to Customer Programs Projects in FY 2020.

Support Services

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

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

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

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

NORTHERN CALIFORNIA POWER AGENCY Support Services Comparative Draft Budget Report

_	FY 2018 Budget	FY 2018 Actual	FY 2019 Budget	Proposed FY 2020 Budget	Budget Increase/ (Decrease)
Support Services					
Salaries & Benefits	\$0	\$0	\$42,316	\$43,685	\$1,369
Training Services	0	117,821	0	0	0
Vendor Services	0	496,343	0	0	0
Vendor Shared Services - SCPPA	0	95,612			
Other Support Services	\$0	\$13,173	\$0	\$0	\$0
Annual Budget Cost	0	722,949	42,316	43,685	1,369
Less: Actual Billed	0	(759,251)	(42,316)	(43,685)	(1,369)
Unfunded / (Excess)	\$0	(\$36,302)	\$0	\$0	\$0

Northern California Power Agency Grand Total Full-Time Employee Staffing by Business Unit FY 2019-2020 Budget

BUSINESS UNITS	
GENERATION SERVICES	
POWER MANAGEMENT	
LEGISLATIVE & REGULATORY	
ADMINISTRATIVE & GENERAL	
GRAND TOTAL	

FY 20	18-2019 Bu	FY 2019-2	2020 Budget	
On Board (A)	ard (A) Open (B) Total		Change (C)	Total
86.00	4.00	90.00	1.00	91.00
25.00	-	25.00	-	25.00
5.75	1.00	6.75	-	6.75
39.25	3.00	42.25	-	42.25
156.00	8.00	164.00	1.00	165.00

- Note = A: Number of full-time employees planned as of 7/1/18. 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 2019-2020 Budget

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

FY 2018-2019 Budget						
On Board	Open	Total				
1.23		1.23				
		-				
		-				
2.00		2.00				
3.23	-	3.23				

FY 2019-2020 Budget				
Change	Total			
	1.23			
	-			
	-			
1.00	3.00			
1.00	4.23			

NORTHERN CALIFORNIA POWER AGENCY

Summary of Position Changes

FY 2019-2020

New Changes: Add Add	0.50 0.50	Information Services Legal	Student Assistant (Casual) (SCADA Support) (Org 300) Student Assistant IV (Org 115)	Vacant Vacant
Add	1.00	CTs/LEC	CT Specialist IV (Org 610)	Vacant
_	2.00	Total		
Reclass	0.00	Information Services	Office Assistant II (9) to Administrative assistant/Office Administrator II (11) (Org 300)	Norwood
Upgrade	0.00	Power Settlements	Power Settlements Anaylst I (16) to Power Settlements Analyst II (18) (Org 220)	Maltese
Upgrade	0.00	Human Resources	Human Resources Analyst I (16) to Human Resources Analyst II (18) (Org 400)	Bryant
Upgrade	0.00	Geothermal	Engineer III (20) to Engineer IV (23) (Org 630)	Snyder
Upgrade	0.00	Geothermal	Operator Technician V (Org 632) to Superintendent, Generation Resources (27) (Org 630)	Young
Reclass	0.00	Hydro	Administrative Asst/Office Administrator III (13) to Engineer I (16) reverses FY19 reclass, position meant to be underfilled	Kves
Upgrade	0.00	Hydro	Hydro Tech to Hydro Operator (Org 650) reverses FY19 downgrade, position meant to be underfilled	Bostelman
Upgrade	0.00	Generation Services	Supervisor II, Engineering (24) to Supervisor III, Engineering (27)	Yuen

NORTHERN CALIFORNIA POWER AGENCY ADMINISTRATIVE GENERAL WAGE STRUCTURE Effective December 22, 2019

		MININ	ALIM	CONTROL POINT		CTRL PT PLUS 15%		
GRADE	JOB CLASSIFICATION/JOB FAMILY		ANNUAL HOURLY		HOURLY	ANNUAL HOURLY		
15 ¹	ACCOUNTANT/ANALYST I	70,470	33.88	88,088	42.35	101,296	48.70	
17 ¹	ACCOUNTANT/ANALYST II	81,432	39.15	101,795	48.94	117,062	56.28	
19 ¹	ACCOUNTANT/ANALYST III	94,099	45.24	117,624	56.55	135,262	65.03	
9 1	ACCOUNTING CLERK I	45,656	21.95	57,075	27.44	65,624	31.55	
11 1	ACCOUNTING CLERK II	52,770	25.37	65,957	31.71	75,837	36.46	
13 1	ACCOUNTING CLERK III	60,965	29.31	76,211	36.64	87,651	42.14	
9 1	ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR I	45,656	21.95	57,075	27.44	65,624	31.55	
11 1	ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR II	52,770	25.37	65,957	31.71	75,837	36.46	
13 1	ADMINISTRATIVE ASSISTANT/OFFICE ADMINISTRATOR III	60,965	29.31	76,211	36.64	87,651	42.14	
30 ¹	AGM I/SENIOR DIRECTOR (E.g. Business Development)	208,499	100.24	260,624	125.30	299,707	144.09	
31 ¹	AGM II (E.g. Power Mgmt, Generation, Leg & Reg, CFO/Admin)	224,120	107.75	280,155	134.69	322,192	154.90	
32 ¹	AGM III	240,947	115.84	301,184	144.80	346,341	166.51	
23 1	ASSISTANT CONTROLLER	125,674	60.42	157,082	75.52	180,648	86.85	
25 ¹	ASSISTANT MANAGER: INFORMATION SERVICES	145,226	69.82	181,542	87.28	208,770	100.37	
6E ¹	ASSISTANT, STUDENT I	28,309	13.61	35,402	17.02	40,706	19.57	
6F ¹	ASSISTANT, STUDENT II	35,173	16.91	43,971	21.14	50,565	24.31	
6G ¹	ASSISTANT, STUDENT III	43,722	21.02	54,642	26.27	62,837	30.21	
6H ¹	ASSISTANT, STUDENT IV	50,502	24.28	63,128	30.35	72,592	34.90	
14 ¹	COMPUTER TECHNOLOGY ANALYST	65,541	31.51	81,931	39.39	94,224	45.30	
17 ¹	COMPUTER TECHNOLOGY ANALYST I	81,432	39.15	101,795	48.94	117,062	56.28	
19 ¹	COMPUTER TECHNOLOGY ANALYST II	94,099	45.24	117,624	56.55	135,262	65.03	
21 1	COMPUTER TECHNOLOGY ANALYST III	108,742	52.28	135,928	65.35	156,333	75.16	
23 1	COMPUTER TECHNOLOGY ANALYST IV	125,674	60.42	157,082	75.52	180,648	86.85	
20 1	ENERGY RESOURCE ANALYST III	101,150	48.63	126,443	60.79	145,413	69.91	
16 ¹	ENERGY RESOURCE ANALYST I	75,754	36.42	94,682	45.52	108,888	52.35	
18 ¹	ENERGY RESOURCE ANALYST II	87,526	42.08	109,429	52.61	125,840	60.50	
23 1	ENERGY RESOURCE ANALYST IV	125,674	60.42	157,082	75.52	180,648	86.85	
16 ¹	ENGINEER I	75,754	36.42	94,682	45.52	108,888	52.35	
18 ¹	ENGINEER II	87,526	42.08	109,429	52.61	125,840	60.50	
20 ¹	ENGINEER III	101,150	48.63	126,443	60.79	145,413	69.91	
23 1	ENGINEER IV	125,674	60.42	157,082	75.52	180,648	86.85	
24 1	ENGINEER V: SUPERVISING /PLANT	135,096	64.95	168,875	81.19	194,189	93.36	
20 1	ENVIRONMENTAL, HEALTH & SAFETY SPECIALIST	101,150	48.63	126,443	60.79	145,413	69.91	
16 ¹	EXECUTIVE ASSISTANT	75,754	36.42	94,682	45.52	108,888	52.35	
31 ¹	GENERAL COUNSEL	224,120	107.75	280,155	134.69	322,192	154.90	
36 ¹	GENERAL MANAGER	321,776	154.70	402,210	193.37	462,530	222.37	
16 ¹	GEOLOGIST I	75,754	36.42	94,682	45.52	108,888	52.35	
18 1		87,526	42.08	109,429	52.61	125,840	60.50	
20 1	GEOLOGIST III	101,150	48.63	126,443	60.79	145,413	69.91	
23 1	GEOLOGIST IV	125,674	60.42	157,082	75.52	180,648	86.85	
24 ¹	GEOLOGIST V	135,096	64.95	168,875	81.19	194,189	93.36	
16 ¹	GOVERNMENT RELATIONS REPRESENTATIVE I	75,754	36.42	94,682	45.52	108,888	52.35	
18 ¹	GOVERNMENT RELATIONS REPRESENTATIVE II	87,526	42.08	109,429	52.61	125,840	60.50	
20 1	GOVERNMENT RELATIONS REPRESENTATIVE III	101,150	48.63	126,443	60.79	145,413	69.91	
22 1	GOVERNMENT RELATIONS REPRESENTATIVE IV	116,896	56.20	146,120	70.25	168,043	80.79	
16	HUMAN RESOURCES ANALYST I	75,754	36.42	94,682	45.52	108,888	52.35	
18	HUMAN RESOURCES ANALYST II	87,526	42.08	109,429	52.61	125,840	60.50	
20 1	HUMAN RESOURCES ANALYST III	101,150	48.63	126,443	60.79	145,413	69.91	
13	HUMAN RESOURCES ASSISTANT	60,965	29.31	76,211	36.64	87,651	42.14	
27 ¹	HUMAN RESOURCES DIRECTOR	167,835	80.69	209,789	100.86	241,259	115.99	
25 ¹	HUMAN RESOURCES MANAGER	145,226	69.82	181,542	87.28	208,770	100.37	
13	LEGISLATIVE PROGRAM ASSISTANT	60,965	29.31	76,211	36.64	87,651	42.14	
27 ¹	MANAGER, INFORMATION SERVICES	167,835	80.69	209,789	100.86	241,259	115.99	
27 ¹	MANAGER, INFORMATION SERVICES & POWER SETTLEMENTS	167,835	80.69	209,789	100.86	241,259	115.99	
29 ¹	MANAGER, PLANT	193,939	93.24	242,424	116.55	278,803	134.04	

NORTHERN CALIFORNIA POWER AGENCY ADMINISTRATIVE GENERAL WAGE STRUCTURE Effective December 22, 2019

				MUM	CONTROL POINT		CTRL PT PLUS 15%	
GRADE		JOB CLASSIFICATION/JOB FAMILY		ANNUAL HOURLY		HOURLY	ANNUAL	HOURLY
25	1	MANAGER, REGULATORY PROGRAM	145,226	69.82	181,542	87.28	208,770	100.37
26	1	MANAGER, RELIABILITY COMPLIANCE	156,125	75.06	195,146	93.82	224,411	107.89
17	1	MATERIALS/WAREHOUSE COORDINATOR I	81,432	39.15	101,795	48.94	117,062	56.28
19	1	MATERIALS/WAREHOUSE COORDINATOR II	94,099	45.24	117,624	56.55	135,262	65.03
7	1	OFFICE ASSISTANT I	39,499	18.99	49,379	23.74	56,784	27.30
9	1	OFFICE ASSISTANT II	45,656	21.95	57,075	27.44	65,624	31.55
16	1	POWER SETTLEMENTS ANALYST I	75,754	36.42	94,682	45.52	108,888	52.35
18	1	POWER SETTLEMENTS ANALYST II	87,526	42.08	109,429	52.61	125,840	60.50
20	1	POWER SETTLEMENTS ANALYST III	101,150	48.63	126,443	60.79	145,413	69.91
25	1	POWER SETTLEMENTS MANAGER	145,226	69.82	181,542	87.28	208,770	100.37
23	1	SCHEDULER/PLANNER, POWER	125,674	60.42	157,082	75.52	180,648	86.85
23	1	SENIOR COMPUTER TECH. ANALYST, POWER (E.g. BILLING)	125,674	60.42	157,082	75.52	180,648	86.85
18	1	SHAREPOINT ADMINISTRATOR	87,526	42.08	109,429	52.61	125,840	60.50
4	1	STUDENT HELPER (OFFICE/PLANT)	31,803	15.29	39,749	19.11	45,718	21.98
27	1	SUPERINTENDENT, GENERATION RESOURCES	167,835	80.69	209,789	100.86	241,259	115.99
22	1	SUPERVISOR I, POWER SETTLEMENTS	116,896	56.20	146,120	70.25	168,043	80.79
20	1	SUPERVISOR I, (CHEMICAL, GENERAL SERVICES)	101,150	48.63	126,443	60.79	145,413	69.91
24	1	SUPERVISOR II, (PLANT, ENERGY RISK, ENGINEERING)	135,096	64.95	168,875	81.19	194,189	93.36
27	1	SUPERVISOR III, (POWER MGT., COORD. OP, REG/ENV COMP, ENGNR)	167,835	80.69	209,789	100.86	241,259	115.99
27	1	TREASURER-CONTROLLER	167,835	80.69	209,789	100.86	241,259	115.99
HEA	2	HYDRO TECH APPRENTICE	68,869	33.11	94,141	45.26		
HEA	2	HYDRO TECH	101,670	48.88	131,560	63.25		
HEA	2	HYDRO TECH - DESIGNATED SKILLS	141,024	67.80	141,024	67.80		
HEA	2	HYDRO TECH OPERATOR	138,154	66.42	138,154	66.42		
HEA	2	HYDRO TECH OPERATOR - DESIGNATED SKILLS	148,075	71.19	148,075	71.19		
IBEW	2	CT SPECIALIST I - VI	97,198	46.73	144,851	69.64		
IBEW	2	CT SPECIALIST - LEAD	141,814	68.18	152,090	73.12		
IBEW	2	CT SPECIALIST I - V (OPERATORS)	99,486	47.83	138,278	66.48		
IBEW	2	CT SPECIALIST I - V (OPERATORS) LEAD	145,184	69.80	145,184	69.80		
IBEW	2	MECHANIC OPERATOR I - V	97,198	46.73	127,046	61.08		
IBEW	2	MECHANIC OPERATOR - LEAD	133,390	64.13	133,390	64.13		
IBEW	2	OPERATOR TECHNICIAN I - V	99,486	47.83	133,474	64.17		
IBEW	2	OPERATOR TECHNICIAN - LEAD	140,150	67.38	140,150	67.38		
IBEW	2	STOREKEEPER I - V	65,894	31.68	79,040	38.00		
IBEW	2	TECHNICIAN CHEMICAL/PERFORMANCE	120,286	57.83	120,286	57.83		
IBEW	2	TECHNICIAN OPERATOR I - VI	97,198	46.73	144,248	69.35		
IBEW	2	TECHNICIAN OPERATOR - LEAD	141,211	67.89	151,466	72.82		
	3	SCHEDULE COORDINATOR I	73,528	35.35	98,197	47.21		
	3	SCHEDULE COORDINATOR II	103,355	49.69	119,662	57.53		
	3	SCHEDULE COORDINATOR III	125,299	60.24	144,810	69.62		
	3	SYSTEM DISPATCHER	114,192	54.90	159,806	76.83		
	3	SYSTEM DISPATCHER, LEAD	125,299	60.24	167,794	80.67		

Page 2 of 2

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

Note ² IBEW = International Brotherhood of Electrical Workers

HEA = Hydroelectric Employees Association

These are union classifications subject to the Memorandum of Understanding and overtime, shift differential, relief premium, upgrade and travel pay may be added to base pay when appropriate.

Note Schedule Coordinators and Dispatchers receive overtime, relief pay in addition to step increases.

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	2.7%	Salary x 2.7% per MOU, plus 2.5% labor market adj for IBEW, plus additional 3.75% labor market adj for IBEW level VI, 3.33% labor market adj for HEA, plus additional 3.75% skill premium for HEA - demonstrated skills. Broadbanding increases based on training, experience and qualifications.
Holiday Pay	For Shift workers in IBEW & Dispatch who are scheduled to work on the holiday (24 hour coverage)	IBEW 4 x 1.5 = 6 hours x pay rate, plus 8 hours x pay rate Dispatch 8 hours x pay rate		IBEW (756 hours/# employees) x 14 hours x pay rate Dispatch (288 hours/# employees) x 8 hours x pay rate
Overtime	Budgeted for General Office and Power Systems at time-and-a-half (x 1.5) & double time (x 2.0)	IS Clerical, Programmers, Accounting, Admins, Dispatch, Power Mgmt Hydro Geo CT 1, CT 2, LEC		Gross Wages x 8.17% x 1.5 Gross Wages x (1.3% to 10%) x 1.5 Gross Wages x (2% to 11%) x 1.5, 4% x 2.0 Gross Wages x (1.5% to 9.75%) x 1.5, 3.25% x 2.0 Gross Wages x (5% to 24%) x 1.5
Shift Pay	Hourly premium for swing and graveyard shifts worked 50% of time. Shifts are 12-hours	Hourly shift differential	\$1.25/\$2.50	Differential x 2,080 hours x 50%
Relief	IBEW GEO/CT Bargaining Group System Dispatcher & Schedule Coordinator	Hourly relief differential 2.0% of base pay Hourly relief differential 5% of base pay	\$1.29-\$1.33 \$3.39-\$3.74	Differential x 2,080 hours 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%	\$132,900	\$132,900 x 6.2% = \$8,239.80
Contribution Acty	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%), lf(Gross Wage > \$200,000, then Gross Wage x 1.45% plus .9% x (Gross Wage - \$200,000)
SUI (State Unemployment	Employer contribution to State	SUI Maximum wage Maximum withheld	\$7,000 3.3%	If (Total Comp x 3.3%)<\$231, then (Total Comp x 3.3%), otherwise \$231

Insurance)

EMPLOYEE BENEFITS	_				
Pension	PERS Retirement 2.5% at 55, 3 year average, as of 12/20/09 PERS Retirement 2% at 62, 3 year average, as of 1/1/2013 ICMA 401A, hire date between 1/1/13 and 12/31/18		0.819% 7.663% 0.0% 8.0% 6.5%		Determined by PERS Actuary paid on base pay, holiday pay and shift differential
Health Insurance	Based on projection from actuary or historical based estimate as applicable. Medical estimated to increase 10%.	Premium/person/month medical (C Premium/person/month medical (H Premium/person/month dental Premium/person/month vision Premium/person/month employee	lydro, Geo)	Actual Actual Premiums	Monthly premium = 1,609.89 currently x 12 mos. Monthly premium = 1,684.89 currently x 12 mos. Monthly premium x 12 months Monthly premium x 12 months Monthly premium x 12 months
Retirement Health Insurance	Retired employees only	Per actuary estimate as applied to historical estimate amount/year	current	Estimated	\$17,162.73 x 165 employees = \$2,831,850
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 salary rounded up to the nearest thousand	\$.31/\$1,000 Gross Wage (GW) Maximum yearly premium			If (GW/\$1,000 x 2 x \$.31 x 12 mo.)<\$1,285.20, then (GW/\$1,000 x 2 x \$.31 x 12 mo.), otherwise \$1,285.20
	Unrepresented only at three times annual salary rounded up to nearest thousand	\$.31/\$1,000 Gross Wage (GW) Maximum yearly premium			If (GW/\$1,000 x 3 x \$.31 x 12 mo.)<\$1,285.20, then (GW/\$1,000 x 3 x \$.31 x 12 mo.), otherwise \$1,285.20
Short-Term Disability	Paid on behalf of each employee	\$.15/60% gross weekly rate	Represented		If (GW/2080 x 40 x 60%)>=\$1,860, then (GW/2080 x 40 x 60%)/10 x .15 x 12 otherwise \$334.80
			Unrepresented		If (GW/2080 x 40 x 60%)>=\$2,750, then (GW/2080 x 40 x 60%)/10 x .15 x 12 otherwise \$495.00
Long-Term Disability Insurance	Paid on behalf of each employee	\$.64/\$100 Gross Wage (GW) Maximum yearly premium	Represented		If (GW/\$100 x .513)<\$831.06, then (GW/\$100 x .513, otherwise \$831.06
			Unrepresented		If (GW/\$100 x .513)<\$1,128.60, then (GW/\$100 x .513), otherwise \$1,128.60
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 hi estimate: General Office, Clerical GM, Ass't GM, Ops & Eng, Proj Dir Power Systems Experience Rate Premium Time Factor – 1/3 OT	\$0.44		(Total Comp - (1/3 x OT))/100 x (Rate x Experience Rate)

NORTHERN CALIFORNIA POWER AGENCY EXPENDITURES AND FUNDING SOURCES

FISCAL YEAR ENDED JUNE 30

	Approved	Proposed	Increase
	2019	2020	(Decrease)
EXPENDITURES			
Hydroelectric	\$ 51,856,515	\$ 54,074,101	\$ 2,217,586
Geothermal	34,425,411	35,311,011	885,600
Combustion Turbine No. 1	8,105,701	6,169,530	(1,936,171)
Combustion Turbine No. 2 (STIG)	8,742,852	9,438,409	695,557
Lodi Energy Center	85,162,734	94,399,317	9,236,583
Other Power Supply	389,416,984	354,745,014	(34,671,970)
Transmission	112,821,723	117,088,855	4,267,132
Legislative & Regulatory	4,196,233	4,049,312	(146,921)
Judicial Action	625,000	625,000	-
Judicial Action Direct Costs to Programs	(70,623)	(74,646)	(4,023)
Power Management	9,273,267	9,208,901	(64,366)
Energy Risk Management	259,585	211,744	(47,841)
Settlements	941,392	979,916	38,524
Integrated Systems Support	272,850	243,161	(29,689)
Participant Pass Through Costs (TANC, Dues, Etc)	1,619,170	1,560,447	(58,723)
Support Services	42,316	43,685	1,369
Support Services Reimbursements	(42,316)	(43,685)	(1,369)
Total Annual Expenditures	707,648,794	688,030,072	(19,618,722)
FUNDING SOURCES			
ISO Energy Sales	197,418,487	63,802,783	(133,615,704)
ISO Energy Sales-Plants	100,456,289	127,623,712	27,167,423
Energy Sales to Third Parties	9,040,901	1,181,273	(7,859,628)
Member Owned Generation ISO Energy Revenue	-	67,107,648	67,107,648
Ancillary Services Sales	4,409,129	4,196,879	(212,250)
PM Service Revenue	1,886,258	2,236,497	350,239
Revenue from Customers	10,785,006	-	(10,785,006)
Interest and Other Income	15,812,297	15,201,514	(610,783)
Total Revenues and Other Income	339,808,367	281,350,306	(58,458,061)
Net Proposed Funding from Participants	367,840,427	406,679,766	38,839,339

Northern California Power Agency Participant Funding Requirements (Net) FY 2020 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	\$27,409,624	\$2,901,826	\$ -	\$ -	\$ -	\$318,615	\$3,009,192	\$667,416	\$6,650,981	\$490,406	\$ -	\$ -	\$2,041,088	\$10,738,127	\$ -	\$ -	\$591,972	\$ -	\$ -
Geothermal	4,603,290	792,490	-	10,579	15,786	172,459	484,618	172,791	-	32,943	-	-	368,619	1,994,427	-	-	263,548	295,032	-
Combustion Turbine No. 1	4,903,526	1,069,949	-	9,632	17,169	286,052	656,746	286,052	-	89,083	-	-	-	2,043,121	-	-	445,720	-	-
Combustion Turbine No. 2 (STIG)	6,823,166	1,296,402	-	-	-	-	2,695,151	340,065	-	-	-	-	2,491,549		-	-	-	-	-
Lodi Energy Center	19,978,388 63,717,994	6,060,667	1,563,345 1,563,345	63,452 83,664	465,292 498,247	389,124 1,166,250	2,250,274 9,095,980	482,190 1,948,514	6,650,981	186,104 798,537	-	-	4,901,255	6,099,411 20,875,087	-	-	422,979 1,724,219	295,032	8,056,216 8,056,216
			1,563,345	63,664	490,247	1,166,250		1,946,514		796,537	-	-	4,901,255	20,675,067	-	-	1,724,219	295,032	6,056,216
Member Resources-Energy	25,891,283	4,061,376	-				930,861		20,641,860	-	257,186			-					
Member Resources-Natural Gas Western Resource	74,252 (2,517,251)	(160.827)	-	3,281 (39,384)	12,845 (88,172)	30,355 (33,534)	(6,378) (75,913)	15,608 (43,011)	(1,641,193)	(308,457)	(80,645)	-	-	-	-	-	18,542 (46,115)	-	-
NCPA Contracts & Market Power Purchases	(1,218,419)	109,621	(812,604)	(1,002)	340.852	(33,534)	(96.601)	(33,210)	(1,641,193)	(306,457)	(60,645)				-	-	(725,475)		
Load Aggregation Costs	256,029,593	13,573,417	16,795,172	643,421	1,396,750	2,999,706	16,635,027	5,204,148	34,474,944	6,122,239	4,445,473			149,425,753	-	-	4,313,543		0
Net GHG Obligations	496,955		263,522				233,433												
	278,756,413	17,583,587	16,246,090	606,316	1,662,275	2,996,526	17,620,428	5,143,535	53,475,611	5,813,782	4,622,014	-	-	149,425,753	-	-	3,560,494	-	-
	342,474,407	23,644,254	17,809,435	689,980	2,160,523	4,162,777	26,716,409	7,092,049	60,126,593	6,612,319	4,622,014		4,901,255	170,300,840	-	-	5,284,713	295,032	8,056,216
TRANSMISSION NCPA Plant Transmission *																			
Geothermal Plant 1	(789)	(261)			(6)	(57)	(253)	(57)		(13)			(57)				(87)		
Geothermal Plant 2	(17,109)	(4,876)		(118)	(88)	(1,064)	(1,558)	(1,064)		(177)			(3,250)				(1,625)	(3,289)	
	(17,898)	(5,136)	-	(118)	(94)	(1,120)	(1,812)	(1,121)		(190)			(3,307)		-	-	(1,712)	(3,289)	-
						🗆													
Independent System Operator	116,832,820 116,814,922	\$8,287,361 8,282,225	10,149,719 10,149,719	404,302 404,184	750,414 750,320	1,833,455 1,832,335	10,050,603 10,048,791	3,181,631 3,180,511	21,310,739	2,910,544 2,910,354	2,800,377 2,800,377		(3.307)	52,549,678 52,549,678	-	-	2,603,997 2,602,286	(3,289)	-
MANAGEMENT SERVICES	110,814,922	0,282,225	10,149,/19	404,184	/50,320	1,632,335	10,048,791	ა,180,511	∠1,310,/39	∠,910,354	2,600,377	-	(3,307)	5∠,549,678			∠,002,286	(3,289)	-
LEGISLATIVE & REGULATORY																l	l		
Legislative Representation	1,469,072	79,640	-	50,349	51,915	55,739	86,608	60,930	128,948	62,581	58,225	115,688	154,863	375,010	66,928	62,983	58,668		
Regulatory Representation	515,595	27,951	-	17,671	18,220	19,562	30,396	21,384	45,256	21,964	20,435	40,603	54,352	131,616	23,489	22,105	20,591	-	
Western Representation	742,208	21,325	8,606	5,223	11,689	4,446	10,065	5,704	217,614	31,088	10,694	144,247	85,802	169,776	-	9,815	6,114	-	
JPA Assessment	1,309,637 4,036,513	52,132 181,048	61,126 69,733	2,346 75,588	5,006 86,830	11,506 91,253	63,975 191,044	20,330 108,347	135,942 527,761	23,137 138,770	15,732 105,087	113,405 413,943	179,990 475,007	554,180 1,230,581	30,525 120,942	23,819 118,721	16,486 101,859		
Judicial Action	4,036,513	161,046	69,733	75,566	66,630	91,253	191,044	100,347	527,761	138,770	105,067	413,943	4/5,00/	1,230,561	120,942	110,721	101,059	-	-
Tariffs & Rates	500,353	55,531	832	2,386	4,399	11,097	62,649	17,410	117,993	17,499	15,615	-	20,084	156,343		-	16,484	2,031	-
Contingency **	50,000																		
	550,353	55,531	832	2,386	4,399	11,097	62,649	17,410	117,993	17,499	15,615	-	20,084	156,343	-	-	16,484	2,031	-
POWER MANAGEMENT																			
Power Mgmt, SCALD, ISS, Energy Risk Mgmt & Settlements	10,404,131	978,797	820,186	62,850	98,754	192,707	1,200,028	322,785	1,761,063	355,986	491,850		494,392	3,158,952			325,093	140,689	
Green Power Program	10,404,131	510,151	820,186	62,650	50,754	192,707	1,200,028	322,765	1,761,063	355,566	451,050		454,352	3,130,932			329,093	140,669	
Market Purchase Program	106,113	10,890	28,172	10,823	10,886	10,790	12,319	11,443									10,790		
Gas Purchase Program	77,025	·	•	7,727	11,064	10,431	25,886	11,204									10,712		
	10,587,269	989,687	848,358	81,400	120,704	213,928	1,238,234	345,431	1,761,063	355,986	491,850	-	494,392	3,158,952	-	-	346,596	140,689	-
	15,174,135	1,226,265	918,922	159,374	211,934	316,278	1,491,927	471,189	2,406,817	512,255	612,552	413,943	989,483	4,545,877	120,942	118,721	464,939	142,719	-
TANC- SOT	89,000	35,904				4,046	35,341	4,558		3,978							5,173		
BAMx Consulting	837,500	35,504	180,000			4,046	35,341	4,556	129,516	3,976	_			527,984			5,175		
Biggs 60Kv	4,700	_	100,000	4,700					123,310		-			327,304					
APPA Dues	314,461	22,802		1,183	3,849	6,757	25,280	12,644	39,847			45,356	52,846	71,246	11,474	12,994	8,185		
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	24,289	1,761		91	297	522	1,953	977	3,078			3,503	4,082	5,503	886	1,004	632		
CEE Dues	10,000	667		667	667	667	667	667	667	667	667	667	667	667	667	667	667		
Subscriptions Matering Maintenance	18,000 142,000	E 005	72 000	E 005	2 000	2 000	0 000	7.040	6,000	E 00F	44.004	2,500	6,000	3,500			E 005		
Metering Maintenance Customer Programs Projects **	142,000 91,497	5,995	72,000	5,995	2,998	2,998	8,993	7,048	11,991	5,995	11,991						5,995		
WRGIS Certificate Transfer Fees**	10,000]													
Pass Through Costs	1,560,447	69,565	252,000	13,124	8,297	15,477	74,669	26,380	193,534	11,127	13,145	54,462	66,030	611,336	13,514	15,151	21,139		
Support Services	43,685															l			
Support Services Reimbursements	(43,685)															l			
OTHER THIRD PARTY REVENUE																l	l		
PM Service Revenue (Nexant)	(2,012,847)	(151,420)	(164,592)	(10,775)	(19,776)	(32,403)	(197,355)	(53,493)	(266,602)	(57,638)	(85,588)	-	(86,967)	(712,058)	-	-	(53,663)	(27,656)	(92,859)
PM Service Revenue (A&G)	(223,650)	(23,655)	(9,440)	(986)	(2,948)	(6,577)	(30,189)	(8,069)	(16,487)	(3,641)	(1,479)	(908)	(16,398)	(92,697)	(367)	(334)	(9,475)		
Member-Owned Generation ISO Energy Revenue	(67,107,648)		(466,365)						(1,602)	(1,515,639)				(64,859,529)			(264,513)		
Revenue from Customers	(69,344,145)	(175,075)	(640,397)	(11,761)	(22,725)	(38,981)	(227,545)	(61,562)	(284,690)	(1,576,918)	(87,067)	(908)	(103,365)	(65,664,284)	(367)	(334)	(327,650)	(27,656)	(92,859)
	(03,344,145)	(115,015)	(340,337)	(11,761)	(22,725)	(30,301)	(221,045)	(01,002)	(404,030)	(1,376,316)	(01,001)	(308)	(103,365)	(00,004,204)	(367)	(334)	(527,000)	(21,000)	(32,009)
JPA Assessment - Others																l			
Non-NCPA Participants	112.428															l	l	7.639	104,789
Credits to Participants	(112,428)	(4.475)	(5,247)	(201)	(430)	(988)	(5,492)	(1.745)	(11,670)	(1,986)	(1,351)	(9,735)	(15,452)	(47,575)	(2,620)	(2,045)	(1,415)	7,000	104,103
orodia to Fattiopants	(112,420)	(4,475)	(5,247)	(201)	(430)	(988)	(5,492)	(1,745)	(11,670)	(1,986)	(1,351)	(9,735)	(15,452)	(47,575)	(2,620)	(2,045)	(1,415)	7,639	104,789
NET ANNUAL BUDGET COST	\$ 406,679,766	\$ 33,042,759	\$ 28,484,431	\$ 1,254,699	\$ 3,107,919	\$ 6,286,897	\$ 38,098,759	\$ 10,706,821	\$ 83,741,322	\$ 8,467,150	\$ 7,959,670	\$ 457,761	\$ 5,834,644	\$ 162,295,872	\$ 131,468	\$ 131,494	\$ 8,044,011	\$ 414,445	\$ 8,068,146
FY2019 Net Annual Budget Cost	367,840,427	32,554,728	28,691,513	1,299,529	3,354,005	6,807,911	40,902,644	11,282,848	84,468,378	8,772,734	9,446,886	491,071	6,431,450	107,607,839	132,153	134,115	9,827,948	572,095	14,902,581
Incr (decr)		488,031	(207,082)	(44,829)	(246,086)	(521,014)	(2,803,884)	(576,027)	(727,056)	(305,584)	(1,487,216)	(33,310)	(596,806)	54,688,033	(685)	(2,621)	(1,783,937)	(157,650)	(6,834,435)

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.

Northern California Power Agency Participant Funding Requirements (Gross) FY 2020 Budget

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										Plumas	Port of			Santa	Shasta	Truckee-			All
GENERATION RESOURCES	Budget	Alameda	BART	Biggs	Gridley	Healdsburg	Lodi	Lompoc	Palo Alto	Sierra	Oakland	Redding	Roseville	Clara	Lake	Donner	Ukiah	TID	Other
Hydro	\$54,074,101	\$5,543,249				\$ 757.090	\$ 5,748,350	\$1,274,947	\$ 12,705,128	\$ 936,808			\$5,235,528	\$ 20,742,178			\$1,130,823		
Geothermal	35,218,533	5,945,769		79.946	118,334	1,293,929	3,620,465	1,296,394	\$ 12,705,126	246,882	•	• -	2,776,277	15,633,683		• -	1,977,345	2,229,509	• -
Combustion Turbine No. 1	6.169.530	1.346.191	1	12,135	21.593	359,887	826,304	359.887		112.082			2,770,277	2.570.640]	560.810	2,229,509	
Combustion Turbine No. 2 (STIG)	9,438,409	1,793,298	_	.2,.00	21,000	-	3,728,172	469,246		,002	_	_	3,447,694	2,010,040	_	_	1 .		_
Lodi Energy Center	94.399.317	1,733,230	6.484.600	263,210	1.929.962	1.614.069	9.333.899	2,000,098	_	771.957	_	_	3,447,034	25,299,762			1.754.477]	44,947,282
Loui Lineigy Certies	199,299,890	14,628,507	6,484,600		2,069,890	4,024,975	23,257,189	5,400,573	12,705,128	2,067,729			11,459,499	64,246,262	_		5,423,455	2,229,509	44,947,282
			0,404,000	000,202	2,000,000	4,024,010		0,400,070		2,007,720			11,400,400	04,240,202			0,420,400	2,220,000	44,047,202
Member Resources-Energy	56,228,967 3,540,898	11,117,749	-	51.088	235.355	285.612	1,948,294 2.089.082	527,462	40,660,646	-	2,502,278			-			352,299		
Member Resources-Natural Gas			-						-			-	-	-	-	- 1		-	-
Western Resource NCPA Contracts & Market Power Purchases	23,325,119 15,123,482	1,490,246 177,666	12.918.011	364,984	816,863 406,704	310,669	703,366 1.075.368	398,597 464,781	15,207,591	2,858,165	747,349					-	427,289 57,539		
	15,123,482 256.029.593	177,666	12,918,011	23,413 643,421	1.396.750	2,999,706	1,075,368	464,781 5.204.148	34.474.944	6.122.239	4.445.473			149.425.754			4,313,543		
Load Aggregation Costs Net GHG Obligations	256,029,593 496,955	13,5/3,41/	263,522	643,421	1,396,750	2,999,706	233,433	5,204,146	34,474,944	6,122,239	4,445,473			149,425,754			4,313,543		U
Net GHG Obligations									*******										
	354,745,014	26,359,078 40,987,585	29,976,705 36,461,305	1,082,906	2,855,672 4,925,562	3,595,987 7,620,962	22,684,569 45.941.758	6,594,988 11,995,561	90,343,181	8,980,404 11.048.133	7,695,100 7,695,100		11,459,499	149,425,754 213,672,016	-		5,150,670	2.229.509	
	554,044,904	40,987,585	36,461,305	1,438,198	4,925,562	7,620,962	45,941,758	11,995,561	103,048,309	11,048,133	7,695,100	-	11,459,499	213,672,016	-	-	10,574,125	2,229,509	44,947,282
TRANSMISSION NCPA Plant Transmission *																	'		
Geothermal Plant 1	54,399	17,986			401	3,901	17,466	3,918		862			3,901				5,964		
Geothermal Plant 2	38.079	17,986		262	195	2,368	3,469	2,368		395			7,234				3,617	7.319	
Geotriermai Plant 2	92,478	28.838		262	596	6,269	20,934	6,286		1,257			11.135				9,581	7,319	
	92,476	20,030	-	202	596	0,209	20,934	6,200		1,257			11,135	-	-		9,361	7,319	-
Independent System Operator	117.088.855	8.295.727	10.197.694	405,921	753,996	1,835,227	10,056,175	3.184.124	21,379,384	2.923.156	2,804,214			52,646,784	l		2,606,456		
	117,181,333	8.324.565	10,197,694	406,183	754,592	1,841,496	10,077,109	3,190,410	21,379,384	2,924,413	2,804,214	_	11,135	52,646,784	-		2,616,037	7,319	
MANAGEMENT SERVICES	,101,000	-,52-,000	, , , ,	.50,100	. 34,002	.,. *1,+00	,,	2,.00,410	,0,0,004	_,,,	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,	,5-10,1.04			_,,	.,0.0	
LEGISLATIVE & REGULATORY			l												l		i '		
Legislative Representation	1,472,019	79,800		50,450	52,019	55.850	86,781	61,052	129,207	62,707	58,342	115,920	155,173	375,762	67,062	63,109	58,786	ا ۔ ا	
Regulatory Representation	516,710	28.011		17,709	18,260	19,605	30,462	21,430	45,354	22,011	20,479	40,691	54,469	131,900	23,540	22,153	20,635	_	
Western Representation	745,117	21,408	8,640	5,243	11,735	4,463	10,104	5,726	218,467	31,210	10,736	144,813	86,139	170,445		9,850	6,138		
JPA Assessment	1,315,466	52,364	61,398	2,356	5,029	11,557	64,260	20,420	136,547	23,240	15,802	113,909	180,791	556,646	30,661	23,925	16,559		
	4,049,312	181,583	70,039	75,758	87,042	91,475	191,608	108,628	529,575	139,168	105,360	415,333	476,572	1,234,753	121,263	119,037	102,118	-	-
Judicial Action	.,:.:,012	,500	,,,,,,	,	,	,	,	,,,,,,	,010	,.00	,500	,500	,	.,,,	:=:,200	,	,		
Tariffs & Rates	500,354	55,531	832	2,386	4,399	11,097	62,649	17,410	117,993	17,499	15,615	-	20,084	156,344		-	16,484	2,031	-
Contingency **	50,000			, , , , , , , , , , , , , , , , , , , ,	,	, , ,		, ,		,			,,,,				1		
gy	550,354	55,531	832	2,386	4,399	11,097	62,649	17,410	117,993	17,499	15,615	-	20,084	156,344	-	-	16,484	2,031	-
POWER MANAGEMENT					,	, ,		,	-										
Power Mgmt, SCALD, ISS,																	'		
Energy Risk Mamt & Settlements	10,455,066	982.858	825,622	63,124	99,240	193,482	1.205.957	324,223	1.768.436	357.499	493,774		496,567	3,170,685			326,542	141,389	5,669
Green Power Program	0	,		,		-	-		.,,	-	,		,	-,,	-			,	-,
Market Purchase Program	111,270	11.419	29.541	11.349	11,415	11.315	12.918	11.999									11.315		
	77,386			7.763	11,116	10,480	26.008	11,257									10,763		
Gas Purchase Program	77,386 10,643,722	994,277	855,163	7,763 82,237	11,116 121,771	10,480 215,277	26,008 1,244,882	11,257 347,478	1,768,436	357,499	493,774	-	496,567	3,170,685	-	-	10,763 348,619	141,389	5,669
	10,643,722			82,237	121,771	215,277	1,244,882			357,499 514,166	493,774 614,748	415,333			121,263	119,037	348,619	141,389 143,420	5,669 5,669
		994,277 1,231,392	855,163 926,033					347,478	1,768,436 2,416,004			415,333	496,567 993,223	3,170,685 4,561,782	121,263	119,037			
	10,643,722			82,237	121,771	215,277	1,244,882	347,478				415,333			121,263	119,037	348,619		
Gas Purchase Program	10,643,722 15,243,388	1,231,392		82,237	121,771	215,277 317,849	1,244,882 1,499,139	347,478 473,516		514,166		415,333			121,263	119,037	348,619 467,222		
Gas Purchase Program TANC- SOT	10,643,722 15,243,388 89,000	1,231,392	926,033	82,237	121,771	215,277 317,849	1,244,882 1,499,139	347,478 473,516	2,416,004	514,166		415,333		4,561,782	121,263	119,037	348,619 467,222		
Gas Purchase Program TANC- SOT BAMx Consulting	10,643,722 15,243,388 89,000 837,500	1,231,392	926,033	82,237 160,381	121,771	215,277 317,849	1,244,882 1,499,139	347,478 473,516	2,416,004	514,166		415,333 45,356		4,561,782	- 121,263 11,474	119,037	348,619 467,222		
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60Kv APPA Dues SEPA Dues	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000	1,231,392 35,904	926,033	82,237 160,381 4,700	121,771 213,212	215,277 317,849 4,046	1,244,882 1,499,139 35,341	347,478 473,516 4,558	2,416,004 129,516	514,166		45,356 2,436	993,223 52,846 2,436	4,561,782 527,984 71,246 2,437			348,619 467,222 5,173		
Gas Purchase Program TANC- SOT BAMx Consulting Biggs 60Kv APPA Dues	10,643,722 15,243,388 89,000 837,500 4,700 314,461	1,231,392 35,904 - 22,802	926,033	82,237 160,381 4,700 1,183	121,771 213,212 3,849	215,277 317,849 4,046 6,757	1,244,882 1,499,139 35,341 25,280	347,478 473,516 4,558 12,644	2,416,004 129,516 39,847	514,166 3,978	614,748	45,356	993,223 52,846	4,561,782 527,984 71,246	11,474	12,994	348,619 467,222 5,173 8,185		
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60Kv APPA Dues SEPA Dues	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000	1,231,392 35,904 - 22,802 2,436	926,033	82,237 160,381 4,700 1,183 487	121,771 213,212 3,849 487	215,277 317,849 4,046 6,757 487	1,244,882 1,499,139 35,341 25,280 2,436	347,478 473,516 4,558 12,644 487	2,416,004 129,516 39,847 2,436 3,078 667	514,166 3,978	614,748	45,356 2,436 3,503 667	993,223 52,846 2,436 4,082 667	4,561,782 527,984 71,246 2,437 5,503 667	11,474 487	12,994 487	348,619 467,222 5,173 8,185 487		
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60Kv APPA Dues SEPA Dues DEED Dues	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289	1,231,392 35,904 - 22,802 2,436 1,761	926,033	82,237 160,381 4,700 1,183 487 91	121,771 213,212 3,849 487 297	215,277 317,849 4,046 6,757 487 522	1,244,882 1,499,139 35,341 25,280 2,436 1,953	347,478 473,516 4,558 12,644 487 977	2,416,004 129,516 39,847 2,436 3,078	514,166 3,978 487	614,748	45,356 2,436 3,503	993,223 52,846 2,436 4,082	4,561,782 527,984 71,246 2,437 5,503	11,474 487 886	12,994 487 1,004	348,619 467,222 5,173 8,185 487 632		
Gas Purchase Program TANC- SOT BAMx Consulting Biggs 60Kv APPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues Gues Dues Metering Maintenance	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 18,000	1,231,392 35,904 - 22,802 2,436 1,761	926,033	82,237 160,381 4,700 1,183 487 91	121,771 213,212 3,849 487 297	215,277 317,849 4,046 6,757 487 522	1,244,882 1,499,139 35,341 25,280 2,436 1,953	347,478 473,516 4,558 12,644 487 977	2,416,004 129,516 39,847 2,436 3,078 667	514,166 3,978 487	614,748	45,356 2,436 3,503 667	993,223 52,846 2,436 4,082 667	4,561,782 527,984 71,246 2,437 5,503 667	11,474 487 886	12,994 487 1,004	348,619 467,222 5,173 8,185 487 632		
Gas Purchase Program TANC- SOT BAMx Consulting Biggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues Subscriptions Metering Maintenance Customer Programs Projects **	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 18,000 142,000 91,497	1,231,392 35,904 - 22,802 2,436 1,761 \$667	926,033 180,000	82,237 160,381 4,700 1,183 487 91 667	121,771 213,212 3,849 487 297 667	215,277 317,849 4,046 6,757 487 522 667	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667	347,478 473,516 4,558 12,644 487 977 667	2,416,004 129,516 39,847 2,436 3,078 667 6,000	514,166 3,978 487 667	614,748 - 487 667	45,356 2,436 3,503 667	993,223 52,846 2,436 4,082 667	4,561,782 527,984 71,246 2,437 5,503 667	11,474 487 886	12,994 487 1,004	348,619 467,222 5,173 8,185 487 632 667		
Gas Purchase Program TANC- SOT BAMX Consulling Biggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues CUSTON Melaring Maintenance Customer Programs Projects ** WREGIS Certificate Transfer Fees**	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 18,000 142,000 91,497 10,000	1,231,392 35,904 - 22,802 2,436 1,761 \$667 5,995	926,033 180,000 72,000	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998	215,277 317,849 4,046 6,757 487 522 667 2,998	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993	347,478 473,516 4,558 12,644 487 977 667 7,048	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991	514,166 3,978 487 667 5,995	614,748 - 487 667 11,991	45,356 2,436 3,503 667 2,500	993,223 52,846 2,436 4,082 667 6,000	4,561,782 527,984 71,246 2,437 5,503 667 3,500	11,474 487 886 667	12,994 487 1,004 667	348,619 467,222 5,173 8,185 487 632 667 5,995		
Gas Purchase Program TANC- SOT BAMx Consulting Biggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues Subscriptions Metering Maintenance Customer Programs Projects **	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 18,000 142,000 91,497	1,231,392 35,904 - 22,802 2,436 1,761 \$667	926,033 180,000	82,237 160,381 4,700 1,183 487 91 667	121,771 213,212 3,849 487 297 667	215,277 317,849 4,046 6,757 487 522 667	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667	347,478 473,516 4,558 12,644 487 977 667	2,416,004 129,516 39,847 2,436 3,078 667 6,000	514,166 3,978 487 667	614,748 - 487 667	45,356 2,436 3,503 667	993,223 52,846 2,436 4,082 667	4,561,782 527,984 71,246 2,437 5,503 667	11,474 487 886	12,994 487 1,004	348,619 467,222 5,173 8,185 487 632 667		
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues CUstomer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 18,000 142,000 91,497 10,000 1,560,447	1,231,392 35,904 - 22,802 2,436 1,761 \$667 5,995	926,033 180,000 72,000	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998	215,277 317,849 4,046 6,757 487 522 667 2,998	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993	347,478 473,516 4,558 12,644 487 977 667 7,048	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991	514,166 3,978 487 667 5,995	614,748 - 487 667 11,991	45,356 2,436 3,503 667 2,500	993,223 52,846 2,436 4,082 667 6,000	4,561,782 527,984 71,246 2,437 5,503 667 3,500	11,474 487 886 667	12,994 487 1,004 667	348,619 467,222 5,173 8,185 487 632 667 5,995		
Gas Purchase Program TANC- SOT BAMx Consulting Biggs 60Kv APPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CUSTON Metering Maintenance Customer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 142,000 91,497 10,000 1,560,447	1,231,392 35,904 - 22,802 2,436 1,761 \$667 5,995	926,033 180,000 72,000	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998	215,277 317,849 4,046 6,757 487 522 667 2,998	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993	347,478 473,516 4,558 12,644 487 977 667 7,048	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991	514,166 3,978 487 667 5,995	614,748 - 487 667 11,991	45,356 2,436 3,503 667 2,500	993,223 52,846 2,436 4,082 667 6,000	4,561,782 527,984 71,246 2,437 5,503 667 3,500	11,474 487 886 667	12,994 487 1,004 667	348,619 467,222 5,173 8,185 487 632 667 5,995		
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues CUstomer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 18,000 142,000 91,497 10,000 1,560,447	1,231,392 35,904 - 22,802 2,436 1,761 \$667 5,995	926,033 180,000 72,000	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998	215,277 317,849 4,046 6,757 487 522 667 2,998	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993	347,478 473,516 4,558 12,644 487 977 667 7,048	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991	514,166 3,978 487 667 5,995	614,748 - 487 667 11,991	45,356 2,436 3,503 667 2,500	993,223 52,846 2,436 4,082 667 6,000	4,561,782 527,984 71,246 2,437 5,503 667 3,500	11,474 487 886 667	12,994 487 1,004 667	348,619 467,222 5,173 8,185 487 632 667 5,995		
Gas Purchase Program TANC- SOT BAMK Consulling Biggs 60Kv APPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues CEE Dues CHECH Des CUstomer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Support Services Reimbursements	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 142,000 91,497 10,000 1,560,447	1,231,392 35,904 - 22,802 2,436 1,761 \$667 5,995	926,033 180,000 72,000	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998	215,277 317,849 4,046 6,757 487 522 667 2,998	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993	347,478 473,516 4,558 12,644 487 977 667 7,048	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991	514,166 3,978 487 667 5,995	614,748 - 487 667 11,991	45,356 2,436 3,503 667 2,500	993,223 52,846 2,436 4,082 667 6,000	4,561,782 527,984 71,246 2,437 5,503 667 3,500	11,474 487 886 667	12,994 487 1,004 667	348,619 467,222 5,173 8,185 487 632 667 5,995		
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues CUstomer Programs Projects " WREGIS Certificate Transfer Feest" Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 142,000 91,437 10,000 1,560,447 43,685	1,231,392 35,904 - 22,802 2,436 1,761 \$667 5,995	926,033 180,000 72,000	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998	215,277 317,849 4,046 6,757 487 522 667 2,998	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993	347,478 473,516 4,558 12,644 487 977 667 7,048	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991	514,166 3,978 487 667 5,995	614,748 - 487 667 11,991	45,356 2,436 3,503 667 2,500	993,223 52,846 2,436 4,082 667 6,000	4,561,782 527,984 71,246 2,437 5,503 667 3,500	11,474 487 886 667	12,994 487 1,004 667	348,619 467,222 5,173 8,185 487 632 667 5,995	143,420	5,669
Gas Purchase Program TANC- SOT BAMK Consulling Biggs 60Kv APPA Dues SEPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues CEE Gues Subscriptions Metering Maintenance Customer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs Support Services Support Services Relimbursements JPA Assessment - Others Non-NCPA Participants	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685)	35,904 - 22,802 2,436 1,761 \$667 5,995	926,033 180,000 72,000 252,000	82,237 180,381 4,700 1,183 487 91 667 5,995	3,849 487 297 667 2,998	215,277 317,849 4,046 6,757 487 522 667 2,998	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993	347,478 473,516 4,558 12,644 487 977 667 7,048	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991	514,166 3,978 487 667 5,995	614,748 - 487 667 11,991	45,356 2,436 3,503 667 2,500	993,223 52,846 2,436 4,082 667 6,000	4,561,782 527,984 71,246 2,437 5,503 667 3,500	11,474 487 886 667 - 13,514	12,994 487 1,004 667	348,619 467,222 5,173 8,185 487 632 667 5,995		
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues CUstomer Programs Projects " WREGIS Certificate Transfer Feest" Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 142,000 91,437 10,000 1,560,447 43,685	1,231,392 35,904 22,802 2,436 1,761 5,995 69,565	926,033 180,000 72,000 252,000	82,237 160,381 4,700 1,183 47 91 667 5,995	3,849 487 297 667 2,998 8,297	215,277 317,849 4,046 6,757 487 522 667 2,998	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669	347,478 473,516 4,558 12,644 487 977 667 7,048 26,380	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534	514,166 3,978 487 667 5,995 11,127	614,748 - 487 667 11,991 13,145	45,356 2,436 3,503 67 2,500 54,462	993,223 52,846 2,436 4,082 667 6,000	527,984 71,246 2,437 5,503 667 3,500	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 652 667 5,995 21,139	7,639	104,789
Gas Purchase Program TANC- SOT BAMK Consulling Biggs 60Kv APPA Dues SEPA Dues SEPA Dues SEPA Dues SEPED Dus CEE Dues CEE Dues CEE Dues CUstomer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs Support Services Support Services Relimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685)	1,231,392 35,904 22,802 2,436 1,761 5,995 69,565	926,033 180,000 72,000 252,000 (5,247)	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998 8,297	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669	347,478 473,516 4,558 12,644 487 977 687 7,048 26,380	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986)	614,748 - 487 667 11,991 13,145 (1,351) (1,351)	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 667 6,000 (15,452) (15,452)	4,561,782 527,984 71,246 2,437 5,503 667 3,500 611,336	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139	7,639	104,789
Gas Purchase Program TANC- SOT BAMK Consulling Biggs 60Kv APPA Dues SEPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues CEE Gues Subscriptions Metering Maintenance Customer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs Support Services Support Services Relimbursements JPA Assessment - Others Non-NCPA Participants	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685)	1,231,392 35,904 22,802 2,436 1,761 5,995 69,565	926,033 180,000 72,000 252,000 (5,247)	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998 8,297	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669	347,478 473,516 4,558 12,644 487 977 687 7,048 26,380	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986)	614,748 - 487 667 11,991 13,145 (1,351) (1,351)	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 667 6,000 (15,452) (15,452)	527,984 71,246 2,437 5,503 667 3,500	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 652 667 5,995 21,139	7,639	104,789
Gas Purchase Program TANC- SOT BAMK Consulling Biggs 60Kv APPA Dues SEPA Dues SEPA Dues SEPA Dues SEPED Dus CEE Dues CEE Dues CEE Dues CUstomer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs Support Services Support Services Relimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685)	1,231,392 35,904 22,802 2,436 1,761 5,995 69,565	926,033 180,000 72,000 252,000 (5,247)	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998 8,297	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669	347,478 473,516 4,558 12,644 487 977 687 7,048 26,380	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986)	614,748 - 487 667 11,991 13,145 (1,351) (1,351)	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 667 6,000 (15,452) (15,452)	4,561,782 527,984 71,246 2,437 5,503 667 3,500 611,336	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139	7,639	104,789
Gas Purchase Program TANC- SOT BAMx Consulting Biggs 60Kv APPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues CUSTOMER SUBscriptions Metering Maintenance Customer Programs Projects " WREGISC Gertificate Transfer Fees" Pass Through Costs Support Services Support Services Relimbursements JPA Assessment - Others Nort-NCPA Participants Credits to Participants GROSS ANNUAL BUDGET COST	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685)	1,231,392 35,904 22,802 2,436 1,761 5,995 69,565	926,033 180,000 72,000 252,000 (5,247)	82,237 160,381 4,700 1,183 487 91 667 5,995	121,771 213,212 3,849 487 297 667 2,998 8,297	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669	347,478 473,516 4,558 12,644 487 977 687 7,048 26,380	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986)	614,748 - 487 667 11,991 13,145 (1,351) (1,351)	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 667 6,000 (15,452) (15,452)	4,561,782 527,984 71,246 2,437 5,503 667 3,500 611,336	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139	7,639	104,789
Gas Purchase Program TANC- SOT BAMX Consulting Bigas 60Kv APPA Dues SEPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues CEE Dues CUstomer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants GROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales	10,643,722 15,243,388 89,000 337,500 4,700 314,481 19,000 24,289 10,000 118,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 5 688,030,072	1,231,392 35,904 - 22,802 2,438 1,761 \$667 5,995 - (4,475) \$ 50,606,631	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785	82,237 160,381 4,700 1,183 487 91 1667 5,995 13,124 (201) (201) (201) 5 2,017,684	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (430) (430) 5,5901,233	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) (988) 5 9,794,796	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) \$ 57,587,184	347,478 473,516 4,558 12,644 487 977 667 7,048 26,380 (1,745) (1,745) \$ 15,684,122	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534 (11,670) \$ 127,025,561	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) \$14,495,853	614,748 - 487 667 11,991 13,145 (1,351) (1,351)	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 66,000 (15,452) (15,452) 5 12,514,435	4,561,782 527,984 71,246 2,437 5,603 67 3,500 611,336 (47,575) \$\frac{47,575}{5}\$\frac{77,575}{5}\$\frac{77,575}{5}\$\frac{77,575}{271,444,344}	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) 5 13,677,108	7,639 7,639 5 2,387,887	104,789 104,789 \$ 45,057,741
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60KV APPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues Customer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Support Services Relimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants Credits to Participants CROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales - Plants	10,643,722 15,243,388 89,000 337,500 4,700 314,461 19,000 18,000 142,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 5 688,030,072	1,231,392 35,904 22,802 2,436 1,761 \$667 5,995 69,565 (4,475) \$ (4,475) \$ (4,475) 7,112,621 7,756,768	926,033 180,000 72,000 252,000 (5,247) (5,247) 5 47,831,785	82,237 160,381 4,700 1,183 487 91 667 5,995 13,124 (201) (201) (201) (201) (201)	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (430) \$ 5,901,233	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) (988) (988)	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) (5,492)	347,478 473,516 4,558 12,644 487 977 7667 7,048 26,380 (1,745) (1,745) 5,15,684,122	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534 (11,670) (11,670) (11,670) (11,670) (11,670)	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) 514,495,853	614,748 - 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,856	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 667 6,000 (15,452) (15,452)	4,561,782 527,984 71,246 2,437 5,503 667 3,500 611,336	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 622 667 5,995 21,139 (1,415) (1,415) (1,415)	7,639	104,789
Gas Purchase Program TANC- SOT BAMK Consulting Bliggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues CUstomer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants GROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales to Third Parties	10,643,722 15,243,388 89,000 837,500 4,700 314,481 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 5 688,030,072 5 688,030,072 1,181,273	1,231,392 35,904 - 22,802 2,438 1,761 \$667 5,995 - (4,475) \$ 50,606,631	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785	82,237 160,381 4,700 1,183 487 91 1667 5,995 13,124 (201) (201) (201) 5 2,017,684	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (430) (430) 5,5901,233	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) (988) 5 9,794,796	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) \$ 57,587,184	347,478 473,516 4,558 12,644 487 977 667 7,048 26,380 (1,745) (1,745) \$ 15,684,122	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534 (11,670) (11,670) 5 127,025,561	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) (1,986) (1,986) (1,986) (1,986) (1,986) (1,986) (1,986)	614,748 - 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,856	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 66,000 (15,452) (15,452) 5 12,514,435	4,561,782 527,984 71,246 2,437 5,603 611,336 611,336 (47,575) 5 271,444,344	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) \$13,677,108	7,639 7,639 5 2,387,887	104,789 104,789 \$ 45,057,741
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60KV APPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues CUstomer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Support Services Relimbursements JPA Assessment - Others Nort-NCPA Participants Credits to Participants GROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales - Plants Energy Sales to Third Parties Emergy Sales Defergy Revenue	10,643,722 15,243,388 89,000 337,500 4,700 314,461 19,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 12,623,712 5 688,030,072	1,231,392 35,904 22,802 2,436 1,761 \$667 5,995 69,565 (4,475) \$ 50,608,631 7,112,621 7,756,768 1,181,273	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785	82,237 160,381 4,700 1,183 487 91 91 667 5,995 13,124 (201) (201) (201) (201) (3,2017,684	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (5,901,233	215,277 317,849 4,046 6,757 487 522 522 667 2,998 115,477 (988) (988) 5 9,794,796	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) (5,492) 2,741,377 12,855,698	347,478 473,516 4,558 12,644 487 977 667 7,048 26,380 (1,745) (1,745) (1,745) 5,15,684,122	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534 (11,670) \$ 127,025,561	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) (1,986) (1,986,853 2,242,957 1,196,876 1,515,638	614,748 - 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,856	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 667 6,000 (15,452) (15,452) (15,452) (15,452) (15,452) (15,452) (15,452) (15,452) (15,452)	4,561,782 527,984 71,246 2,437 5,503 667 3,500 611,336 (47,575) (47,575) 3 271,444,344 41,070,982 64,859,532	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) (1,415) (1,415) 1,118,335 3,545,693 264,512	7,639 7,639 7,639 5 2,367,867	104,789 104,789 \$ 45,057,741
Gas Purchase Program TANC- SOT BAMK Consulting Biggs 60Kv APPA Dues BEPA Dues DEED Dues CEE Dues Subscriptions Metering Maintenance Customer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants GROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales ISO Energy Sales ISO Energy Sales to Third Parties Member-Owned Generation ISO Energy Revenue Transmission Sales	10,643,722 15,243,388 89,000 337,500 4,700 314,481 19,000 24,289 10,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 5 688,030,072	1,231,392 35,904 22,802 2,438 1,761 \$667 5,995 (4,475) \$ 50,606,631	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785 13,730,615 4,791,768 466,365	82,237 160,381 4,700 1,183 487 91 1667 5,995 13,124 (201) (201) (201) 5 2,017,684	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (430) 5,5901,233	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) (988) 5 9,794,796	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) \$ 57,587,184	347,478 473,516 4,558 12,644 487 977 667 7,048 26,380 (1,745) \$15,684,122 810,784 3,216,366 4,063	2,416,004 129,516 39,847 2,436 3,078 66,70 6,000 11,991 193,534 (11,670) (11,670) 5 127,025,561 31,952,986 5,381,160 1,601	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) 514,495,853 2,242,957 1,196,876 1,515,638 7,195,638	614,748 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,896	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 66,000 (15,452) (15,452) 5,349,034 8,701	4,561,782 527,984 71,246 2,437 5,603 661,336 611,336 (47,575) \$ 271,444,344	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) \$13,677,108	7,639 7,639 5 2,387,887	104,789 104,789 5 45,067,741
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60KV APPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues CUstomer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Support Services Relimbursements JPA Assessment - Others Nort-NCPA Participants Credits to Participants GROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales - Plants Energy Sales to Third Parties Emergy Sales Defergy Revenue	10,643,722 15,243,388 89,000 337,500 4,700 314,461 19,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 12,623,712 5 688,030,072	1,231,392 35,904 22,802 2,436 1,761 \$667 5,995 69,565 (4,475) \$ 50,608,631 7,112,621 7,756,768 1,181,273	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785	82,237 160,381 4,700 1,183 487 91 91 13,124 (201) (201) (201) (201) (201) (310,832 263,926 310,832 263,926	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (5,901,233	215,277 317,849 4,046 6,757 487 52,998 15,477 (988) (988) (988) \$ 9,794,796	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) (5,492) 2,741,377 12,855,698	347,478 473,516 4,558 12,644 487 977 667 7,048 26,380 (1,745) (1,745) 5,15,684,122 810,784 3,216,366	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534 (11,670) (11,670) 5 127,025,561	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) (1,986) (1,986,853 2,242,957 1,196,876 1,515,638	614,748 - 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,856	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 667 6,000 (15,452) (15,452) (15,452) (15,452) (15,452) (15,452) (15,452) (15,452) (15,452)	4,561,782 527,984 71,246 2,437 5,503 667 3,500 611,336 (47,575) (47,575) 3 271,444,344 41,070,982 64,859,532	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) (1,415) (1,415) 1,118,335 3,545,693 264,512	7,639 7,639 7,639 5 2,367,867	104,789 104,789 \$ 45,057,741
Gas Purchase Program TANC- SOT BAMX Consulting Bliggs 60Kv APPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues Customer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants Credits to Participants CROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales - Plants Energy Sales to Third Parties Energy Sales to Third Parties Emergy Sales To Third Parties	10,643,722 15,243,388 89,000 337,500 4,700 314,461 19,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 12,623,712 5 688,030,072	1,231,392 35,904 22,802 2,436 1,761 \$667 5,995 69,565 (4,475) \$ 50,606,631 7,112,621 7,756,768 1,181,273 18,634 232,799 320,583	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785 13,730,615 4,791,768 466,365	82,237 160,381 4,700 1,183 487 91 91 13,124 (201) (201) (201) (201) (201) (201) (310,832 263,926 251 5,350 47,719	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (59,901,233 706,903 1,529,611 371 371 371 372 322,144	215,277 317,849 4,046 6,757 487 52,998 115,477 (988) (988) (988) \$ 9,794,796 243,804 2,739,400 4,055 62,440 254,979	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) 2,741,377 12,855,698 1,1347 374,015	347,478 473,516 4,558 12,644 487 977 977 7,048 26,380 (1,745) (1,745) (1,745) \$15,684,122 810,784 3,216,366 4,063 82,937 510,382	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534 (11,670) 5 127,025,561 31,952,986 5,381,160 1,601 582,434	514,166 3,978 487 667 5,995 11,127 (1,986) (1,996) 514,495,853 2,242,957 1,196,876 1,515,638 774 61,396	614,748 487 667 11,991 13,145 (1,351) (1,351) 3 11,125,856 2,831,569 3,096	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 2,436 4,082 66,000 (15,452) (15,452) 5,349,034 8,701	4,561,782 527,984 71,246 2,437 5,603 661,336 611,336 (47,575) \$ 271,444,344	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 687 5,995 21,139 (1,415) (1,415) \$13,677,108 1,118,335 3,545,639 3264,512 6,197 73,583 332,906	7,639 7,639 7,639 5 2,367,867	104,789 104,789 5 45,067,741
Gas Purchase Program TANC-SOT BAMK Consulting Bliggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues CUstomer Programs Projects ** WREGIS Certificate Transfer Fees** Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants GROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales ISO Energy Sales ISO Energy Sales ISO Energy Sales to Third Parties Member-Owned Generation ISO Energy Revenue Transmission Sales Ancillary Services Sales Gas Transfer Credits Fuel and Pipeline Transport Credits Fuel and Pipeline Transport Credits Fuel and Pipeline Transport Credits Western O&M Credits	10,643,722 15,243,388 89,000 337,461 19,000 24,289 10,000 142,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 5 688,030,072 5 688,030,072	1,231,392 35,904 22,802 2,438 1,761 \$667 5,995 69,565 (4,475) \$ 50,608,631	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785 13,730,615 4,791,788 466,365 139,838	82,237 160,381 4,700 1,183 487 91 167 5,995 13,124 (201) (201) (201) 5 2,017,684	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (430) 5,5901,233 706,903 1,529,611 371 31,523 222,144 -263,218	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) (989) \$ 9,794,796 4,055 62,449 254,499 -100,107	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) (5,492) 2,741,377 12,855,698 11,347 374,015 2,091,125 666,475 226,646	347,478 473,516 4,558 12,644 487 977 667 7,048 26,380 (1,745) \$15,684,122 810,784 3,216,366 4,063 82,937 510,382 84,384 128,440	2,416,004 129,516 39,847 2,436 3,078 6,000 11,991 193,534 (11,670) (11,670) 5 127,025,561 31,952,986 5,381,160 1,601 582,434 4,900,330	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) 514,495,853 2,242,957 1,196,876 1,515,638 61,396 1,515,638	614,748 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,856 2,831,569 3,096 240,817	45,356 2,436 3,503 667 2,500 54,462 (9,735) \$ 460,059	993,223 52,846 4,082 66,030 (15,452) (15,452) 5,349,034 8,701 389,588 615,857	4,561,782 527,984 71,246 2,437 5,603 667 3,500 611,336 (47,575) \$ 271,444,344	11,474 487 886 667 13,514 (2,520) (2,520) 5 152,156	12,994 487 1,004 667 15,151 (2,045) 5, 132,143	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) (1,415) \$ 13,677,108 1,118,335 3,545,693 264,512 6,197 73,583 332,906 - 137,684	7,639 7,639 5 2,387,887 -1,866,268 6,987	104,789 104,789 \$ 45,057,741 36,060,162
Gas Purchase Program TANC- SOT BAMX Consulting Biggs 60KV APPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues Customer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants Credits to Participants GROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales to Third Parties Energy Sales Tansfer Credits Fuel and Pipplien Transport Credits Western O&M Credits PM Services Revenue	10,643,722 15,243,388 89,000 337,500 4,700 314,461 19,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 12,623,712 5 688,030,072	1,231,392 35,904 22,802 2,436 1,761 \$667 5,995 69,565 (4,475) \$ 50,606,631 7,112,621 7,756,768 1,181,273 18,634 232,799 320,583	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785 13,730,615 4,791,768 466,365	82,237 160,381 4,700 1,183 487 91 91 13,124 (201) (201) (201) (201) (201) (201) (310,832 263,926 251 5,350 47,719	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (59,901,233 706,903 1,529,611 371 371 371 372 322,144	215,277 317,849 4,046 6,757 487 52,998 115,477 (988) (988) (988) \$ 9,794,796 243,804 2,739,400 4,055 62,440 254,979	1,244,882 1,499,139 35,341 25,280 2,436 1,933 667 8,993 74,669 (5,492) (5,492) (5,492) 2,741,377 12,855,698 1,1347 74,015 2,741,377 12,855,698	347,478 473,516 4,558 12,644 487 977 977 7,048 26,380 (1,745) (1,745) (1,745) \$15,684,122 810,784 3,216,366 4,063 82,937 510,382	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534 (11,670) 5 127,025,561 31,952,986 5,381,160 1,601 582,434	514,166 3,978 487 667 5,995 11,127 (1,986) (1,996) 514,495,853 2,242,957 1,196,876 1,515,638 774 61,396	614,748 487 667 11,991 13,145 (1,351) (1,351) 3 11,125,856 2,831,569 3,096	45,356 2,436 3,503 667 2,500 54,462 (9,735)	993,223 52,846 4,082 66,000 (15,452) 51,2514,435 12,514,435	4,561,782 527,984 71,246 2,437 5,603 661,336 611,336 (47,575) \$ 271,444,344	11,474 487 886 667 - 13,514	12,994 487 1,004 667 15,151	348,619 467,222 5,173 8,185 487 687 5,995 21,139 (1,415) (1,415) \$13,677,108 1,118,335 3,545,639 3264,512 6,197 73,583 332,906	7,639 7,639 7,639 5 2,367,867	104,789 104,789 5 45,067,741
TANC- SOT BAMK Consulting Biggs 60Kv APPA Dues SEPA Dues SUBscriptions Metering Maintenance Customer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants Credits to Participants Credits to Participants SO Energy Sales ISO Energy Sales ISO Energy Sales ISO Energy Sales ISO Energy Sales Ancillary Services Sales Ancillary Services Sales Ancillary Services Sales Ancillary Services Sales Gas Transfer Credits Fuel and Pipeline Transport Credits Western O&M Credits PM Service Revenue Solar Rebates	10,643,722 15,243,388 89,000 837,500 4,700 314,481 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) (112,428) 12,763,712 63,802,783 127,623,712 6,107,648 110,376 4,196,879 3,499,255 1,687,279 7,516,037 2,236,497	1,231,392 35,904 22,802 2,436 1,761 \$667 5,995 69,565 (4,475) \$ 50,608,631 7,112,621 7,765,768 1,181,27,799 320,532 48,633 48,634 175,075	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785 13,730,615 4,791,788 466,365 139,838	82,237 160,381 4,700 1,183 487 91 1667 5,995 13,124 (201) \$ 2,017,684 310,832 263,926 47,719 117,608 11,761	121,771 213,212 3,849 487 297 667 2,988 8,297 (430) \$ 5,901,233 706,903 1,529,611 31,529,611 31,529,611	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) \$ 9,794,796 4,055 62,440 25,439 100,107 38,981	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) (5,492) (5,492) (5,492) 1,285,698 11,347 374,015 2,741,377 12,855,698	347,478 473,516 4,558 12,644 487 977 7,048 26,380 (1,745)	2,416,004 129,516 39,847 2,436 3,078 6,000 11,991 193,534 (11,670) (11,670) 5 127,025,561 31,952,986 5,381,160 1,601 582,434 4,900,330	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) \$14,495,863 2,242,957 1,196,876 1,515,638 61,396 61,279	614,748 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,856 2,831,569 3,096 240,817	45,356 2,436 3,503 667 2,500 54,462 (9,735) \$ 460,059	993,223 52,846 2,436 4,082 66,000 (15,452) (15,452) 5,349,034 8,701 389,688 615,857 103,365	4,561,782 527,984 71,246 2,437 5,503 611,336 611,336 (47,575) 5 271,444,344 41,070,982 64,859,532 64,859,532 43,986 1,446,371	11,474 487 886 667 13,514 (2,520) (2,520) 5 152,156	12,994 487 1,004 667 15,151 (2,045) 5, 132,143	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) (1,415) 3,13,677,108 1,118,335 3,545,693 264,512 6,197 73,583 332,906 137,684 63,137	7,639 7,639 7,639 5 2,387,887 - 1,866,268 6,987	104,789 104,789 \$ 45,057,741 36,060,162
TANC-SOT BAMX Consulting Biggs 60Kv APPA Dues Biggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues Customer Programs Projects " WREGIS Certificate Transfer Fees"* Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants Credits to Participants Credits Tansfer Fees" LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales ISO Energy Sales ISO Energy Sales For Energy Sales Transfer Credits Member-Cowned Generation ISO Energy Revenue Transmission Sales Ancillary Services Sales Gas Transfer Credits Fuel and Pipeline Transport Credits Western O&M Credits PM Service Revenue Solar Rebates Effluent Revenues	10,643,722 15,243,388 89,000 337,461 19,000 24,289 10,000 142,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 5 688,030,072 5 688,030,072	1,231,392 35,904 22,802 2,438 1,761 \$667 5,995 69,565 (4,475) \$ 50,608,631	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785 13,730,615 4,791,788 466,365 139,838	82,237 160,381 4,700 1,183 487 91 167 5,995 13,124 (201) (201) (201) 5 2,017,684	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (430) 5,5901,233 706,903 1,529,611 371 31,523 222,144 -263,218	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) (989) \$ 9,794,796 4,055 62,449 254,499 -100,107	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) (5,492) 2,741,377 12,855,698 11,347 374,015 2,091,125 666,475 226,646	347,478 473,516 4,558 12,644 487 977 667 7,048 26,380 (1,745) \$15,684,122 810,784 3,216,366 4,063 82,937 510,382 84,384 128,440	2,416,004 129,516 39,847 2,436 3,078 6,000 11,991 193,534 (11,670) (11,670) 5 127,025,561 31,952,986 5,381,160 1,601 582,434 4,900,330	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) 514,495,853 2,242,957 1,196,876 1,515,638 61,396 1,515,638	614,748 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,856 2,831,569 3,096 240,817	45,356 2,436 3,503 667 2,500 54,462 (9,735) \$ 460,059	993,223 52,846 4,082 66,030 (15,452) (15,452) 5,349,034 8,701 389,588 615,857	4,561,782 527,984 71,246 2,437 5,603 667 3,500 611,336 (47,575) \$ 271,444,344	11,474 487 886 667 13,514 (2,520) (2,520) 5 152,156	12,994 487 1,004 667 15,151 (2,045) 5, 132,143	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) (1,415) \$ 13,677,108 1,118,335 3,545,693 264,512 6,197 73,583 332,906 - 137,684	7,639 7,639 5 2,387,887 -1,866,268 6,987	104,789 104,789 \$ 45,057,741 36,060,162
TANC- SOT BAMK Consulting Biggs 60Kv APPA Dues SEPA Dues SUBscriptions Metering Maintenance Customer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants Credits to Participants Credits to Participants SO Energy Sales ISO Energy Sales ISO Energy Sales ISO Energy Sales ISO Energy Sales Ancillary Services Sales Ancillary Services Sales Ancillary Services Sales Ancillary Services Sales Gas Transfer Credits Fuel and Pipeline Transport Credits Western O&M Credits PM Service Revenue Solar Rebates	10,643,722 15,243,388 89,000 837,500 4,700 314,481 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) (112,428) 12,763,712 63,802,783 127,623,712 6,107,648 110,376 4,196,879 3,499,255 1,687,279 7,516,037 2,236,497	1,231,392 35,904 22,802 2,436 1,761 \$667 5,995 69,565 (4,475) \$ 50,608,631 7,112,621 7,765,768 1,181,27,799 320,532 48,633 48,634 175,075	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785 13,730,615 4,791,788 466,365 139,838	82,237 160,381 4,700 1,183 487 91 1667 5,995 13,124 (201) \$ 2,017,684 310,832 263,926 47,719 117,608 11,761	121,771 213,212 3,849 487 297 667 2,988 8,297 (430) \$ 5,901,233 706,903 1,529,611 31,529,611 31,529,611	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) \$ 9,794,796 4,055 62,440 25,439 100,107 38,981	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) (5,492) (5,492) (5,492) 1,285,698 11,347 374,015 2,741,377 12,855,698	347,478 473,516 4,558 12,644 487 977 7,048 26,380 (1,745)	2,416,004 129,516 39,847 2,436 3,078 6,000 11,991 193,534 (11,670) (11,670) 5 127,025,561 31,952,986 5,381,160 1,601 582,434 4,900,330	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) \$14,495,863 2,242,957 1,196,876 1,515,638 61,396 61,279	614,748 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,856 2,831,569 3,096 240,817	45,356 2,436 3,503 667 2,500 54,462 (9,735) \$ 460,059	993,223 52,846 2,436 4,082 66,000 (15,452) (15,452) 5,349,034 8,701 389,688 615,857 103,365	4,561,782 527,984 71,246 2,437 5,503 611,336 611,336 (47,575) 5 271,444,344 41,070,982 64,859,532 64,859,532 43,986 1,446,371	11,474 487 886 667 13,514 (2,520) (2,520) 5 152,156	12,994 487 1,004 667 15,151 (2,045) 5, 132,143	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) (1,415) 3,13,677,108 1,118,335 3,545,693 264,512 6,197 73,583 332,906 137,684 63,137	7,639 7,639 7,639 5 2,387,887 - 1,866,268 6,987	104,789 104,789 \$ 45,057,741 36,060,162
TANC-SOT BAMX Consulting Biggs 60Kv APPA Dues Biggs 60Kv APPA Dues SEPA Dues DEED Dues CEE Dues CEE Dues Customer Programs Projects " WREGIS Certificate Transfer Fees"* Pass Through Costs Support Services Support Services Reimbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants Credits to Participants Credits Tansfer Fees" LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales ISO Energy Sales ISO Energy Sales For Energy Sales Transfer Credits Member-Cowned Generation ISO Energy Revenue Transmission Sales Ancillary Services Sales Gas Transfer Credits Fuel and Pipeline Transport Credits Western O&M Credits PM Service Revenue Solar Rebates Effluent Revenues	10,643,722 15,243,388 89,000 837,500 4,700 314,481 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) (112,428) 12,7623,712 63,802,783 127,623,712 61,107,648 110,376 4,196,879 3,499,255 1,687,279 7,516,037 2,236,497	1,231,392 35,904 22,802 2,436 1,761 \$667 5,995 69,565 (4,475) \$ 50,608,631 7,112,621 7,765,768 1,181,27,799 320,532 48,633 48,634 175,075	926,033 180,000 72,000 252,000 (5,247) (5,247) 5,47,831,785 13,730,615 4,791,788 466,365 139,838	82,237 160,381 4,700 1,183 487 91 1667 5,995 13,124 (201) \$ 2,017,684 310,832 263,926 47,719 117,608 11,761	121,771 213,212 3,849 487 297 667 2,988 8,297 (430) \$ 5,901,233 706,903 1,529,611 31,529,611 31,529,611	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) \$ 9,794,796 4,055 62,440 25,439 100,107 38,981	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) (5,492) (5,492) (5,492) 1,285,698 11,347 374,015 2,741,377 12,855,698	347,478 473,516 4,558 12,644 487 977 7,048 26,380 (1,745)	2,416,004 129,516 39,847 2,436 3,078 6,000 11,991 193,534 (11,670) (11,670) 5 127,025,561 31,952,986 5,381,160 1,601 582,434 4,900,330	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) \$14,495,863 2,242,957 1,196,876 1,515,638 61,396 61,279	614,748 487 667 11,991 13,145 (1,351) (1,351) 5 11,125,856 2,831,569 3,096 240,817	45,356 2,436 3,503 667 2,500 54,462 (9,735) \$ 460,059	993,223 52,846 2,436 4,082 66,000 (15,452) (15,452) 5,349,034 8,701 389,688 615,857 103,365	4,561,782 527,984 71,246 2,437 5,503 611,336 611,336 (47,575) 5 271,444,344 41,070,982 64,859,532 64,859,532 43,986 1,446,371	11,474 487 886 667 13,514 (2,520) (2,520) 5 152,156	12,994 487 1,004 667 15,151 (2,045) 5, 132,143	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) (1,415) 3,13,677,108 1,118,335 3,545,693 264,512 6,197 73,583 332,906 137,684 63,137	7,639 7,639 7,639 5 2,387,887 - 1,866,268 6,987	104,789 104,789 \$ 45,057,741 36,060,162
TANC- SOT BAMK Consulting Biggs 60KV APPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues CUstomer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Support Services Relmbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants GROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales to Third Parties Energy Sales to Third Parties Energy Sales to Third Parties Energy Sales Tensifer Feed Transmission Sales Ancillary Services Sales Gas Transfer Credits Fuel and Pipplien Transport Credits Western O&M Credits	10,643,722 15,243,388 89,000 337,461 19,000 24,289 10,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 5 688,030,072 63,802,783 127,623,712 1,181,273 67,107,648 110,376 4,196,879 3,459,255 1,687,279 7,516,037 2,236,497 750,000 1,678,667	1,231,392 35,904 22,802 2,438 1,761 5,995 69,565 4,475) 3 50,666,631 7,112,621 7,7156,768 1,181,273 18,634 222,799 320,563 480,201 175,075 126,619	926,033 180,000 72,000 252,000 (5,247) 5,247) 5,47,831,785 13,730,615 4,791,788 466,365 139,838 - 174,032 - 44,735	82,237 160,381 4,700 1,183 487 91 167 5,995 13,124 (201) 2017,684 310,832 263,926 47,719 117,608 11,761 1,703 3,836	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) \$ 5,901,233 706,903 1,529,611 31,523 222,144 22,725 2,520	215,277 317,849 4,046 6,757 487 522 667 2,998 15,477 (988) (988) (988) 3,794,796 4,055 62,449 243,804 2,739,400 4,055 62,497 38,981 100,107 38,981 27,555	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) 57,557,184 2,741,377 12,895,698 11,347 374,015 2,091,25 666,475 226,646 227,545 77,100 217,097	347,478 473,516 4,558 12,644 487 977 976 7,048 26,380 (1,745) (1,745) (1,745) \$15,684,122 810,784 3,216,366 4,063 82,937 510,382 84,384 128,440 61,682 27,608	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534 (11,670)	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) (1,495,853 2,242,957 1,196,876 1,515,638 774 61,396 61,279 920,986 61,279 	614,748 487 667 11,991 13,145 (1,351) (1,351) (1,351) 3 11,125,856 2,831,569 2,831,569 240,817 87,067	45,356 2,436 3,503 667 2,500 54,462 (9,735) (9,735) \$ 460,059	993,223 52,846 2,436 4,082 667 6,000 (15,452) (15,452) 3 12,514,435 5,349,034 8,701 389,588 615,857 103,365 - 59,123	4,561,782 527,984 71,246 2,437 5,503 667 3,500 611,336 (47,575) 47,575) 47,575) 47,575) 47,575) 41,070,982 48,996 1,446,371 41,070,982 48,996 1,446,371 804,765 804,765	11,474 487 886 667 13,514 (2,620) (2,620) 5 132,156	12,994 487 1,004 667 15,151 (2,045) \$ 132,143	348,619 467,222 5,173 8,185 487 627 5,995 21,139 (1,415) (1,415) (1,415) (1,415) 3,545,693 32,644,512 6,197 73,583 332,906 -137,684 63,137	7,639 7,639 7,639 7,839 7,839 5 2,387,887	104,789 104,789 \$ 45,057,741 36,060,162 711,509 - - 92,859
TANC- SOT BAMK Consulting Biggs 60KV APPA Dues SEPA Dues SEPA Dues CEE Dues CEE Dues CEE Dues CUstomer Programs Projects " WREGIS Certificate Transfer Fees" Pass Through Costs Support Services Support Services Relmbursements JPA Assessment - Others Non-NCPA Participants Credits to Participants GROSS ANNUAL BUDGET COST LESS: THIRD PARTY REVENUE Market Power Sales ISO Energy Sales to Third Parties Energy Sales to Third Parties Energy Sales to Third Parties Energy Sales Tensifer Feed Transmission Sales Ancillary Services Sales Gas Transfer Credits Fuel and Pipplien Transport Credits Western O&M Credits	10,643,722 15,243,388 89,000 837,500 4,700 314,461 19,000 18,000 91,497 10,000 1,560,447 43,685 (43,685) 112,428 (112,428) 127,623,712 1,181,273 65,802,763 177,623,712 1,181,273 67,107,644 110,376 4,196,879 3,459,255 1,687,279 7,516,037 2,236,497 750,000 1,678,657	1,231,392 35,904 22,802 2,438 1,761 5,995 69,565 4,4,475) 3 50,666,631 7,112,621 7,7156,768 1,181,273 18,634 222,799 320,583 480,201 175,075 126,619	926,033 180,000 72,000 252,000 (5,247) 5,47,831,786 13,730,615 4,791,788 466,365 139,838 	82,237 160,381 4,700 1,183 487 91 91 91 13,124 (201) (201) (201) (201) (201) (201) (301,684 (301,682 (201,7684 (401,719	121,771 213,212 3,849 487 297 667 2,998 8,297 (430) (59,901,233 706,903 1,529,611 371 371 371 371 372 222,144 22,725 2,520 2,5	215,277 317,849 4,046 6,757 487 52,998 115,477 (988) (988) (988) \$ 9,794,796 243,804 2,739,400 4,055 62,440 254,979 -100,107 38,981 38,081	1,244,882 1,499,139 35,341 25,280 2,436 1,953 667 8,993 74,669 (5,492) (5,492) \$ 57,587,184 2,741,377 12,855,698 1,1347 374,015 2,091,125 666,475 2,091,125 666,475 2,091,125 666,475 2,77,100	347,478 473,516 4,558 12,644 487 77,976 7,048 26,380 (1,745) (1,745) (1,745) \$15,684,122 810,784 3,216,366 4,063 82,937 510,382 84,384 128,440 61,562 27,608	2,416,004 129,516 39,847 2,436 3,078 667 6,000 11,991 193,534 (11,670)	514,166 3,978 487 667 5,995 11,127 (1,986) (1,986) (1,986) \$14,495,853 2,242,957 1,196,876 1,515,638 61,279 5,258 23,540	614,748 487 667 11,991 13,145 (1,351) (1,351) (1,351) (1,351) (2,831,569 2,831,569 240,817 87,067 3,638 3,166,187	45,356 2,436 3,503 667 2,500 54,462 (9,735) (9,735) \$ 460,059	993,223 52,846 2,436 4,082 667,000 (15,452) (15,452) (15,452) 5,349,034 8,701 389,588 615,857 103,365 593,23 104,423 6,679,791	4,561,782 527,984 71,246 2,437 5,503 611,336 611,336 (47,575) 5 271,444,344 41,070,982 64,859,532 48,996 1,446,371 - 804,755 332,929 584,907	11,474 487 886 667 13,514 (2,620) (2,620) 5 132,156	12,994 487 1,004 667 15,151 (2,045) \$ 132,143	348,619 467,222 5,173 8,185 487 632 667 5,995 21,139 (1,415) 1,118,335 3,545,693 24,512 6,197 73,583 332,906 137,684 63,137 42,109 48,942	7,639 7,639 7,639 7,639 5 2,367,887 1,866,268 6,987	104,789 104,789 104,789 \$ 45,057,741 36,060,162 711,509 - 92,859

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.

L & R Programs	Proposed Budget FY 2020	Governance Committee Recommended Allocation Percentages		JPA Assessment per MWh 8,730,633	Agency MWh Lo	ad
Legislative	\$ 2,129,183	31.0030%	\$ 660,111			
Regulatory	747,272	31.0030%	231,677			
Customer Programs	417,850	100.0000%	417,850			_
Total	\$ 3,294,305		\$ 1,309,637	\$ 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

JF	PA Assessment A	mount \$ / MWh	\$0.150		Allocated	l Credits		
Member	Energy Delivered MWh	Share %	JPA Assessment	Legislative Representation Program	Regulatory Representation Program	Customer Programs	Subtotal	Net Impact of JPA Funds Allocation Incr (Decr)
Alameda	347,535	3.9806%	\$52,132	(\$35,785)	(\$12,559)	(\$27,857)	(\$76,201)	\$ (24,069)
BART	407,496	4.6674%	61,126				0	61,126
Biggs	15,636	0.1791%	2,346	(22,624)	(7,940)	(27,857)	(58,421)	(56,075)
Gridley	33,375	0.3823%	5,006	(23,327)	(8,187)	(27,857)	(59,371)	(54,364)
Healdsburg	76,705	0.8786%	11,506	(25,045)	(8,790)	(27,857)	(61,692)	(50,186)
Lodi	426,488	4.8850%	63,975	(38,916)	(13,658)	(27,857)	(80,431)	(16,456)
Lompoc	135,526	1.5523%	20,330	(27,378)	(9,609)	(27,857)	(64,843)	(44,514)
Palo Alto	906,251	10.3801%	135,942	(57,941)	(20,335)	(27,857)	(106,133)	29,809
Plumas Sierra	154,242	1.7667%	23,137	(28,120)		(27,857)	(65,846)	(42,709)
Port Of Oakland	104,879	1.2013%	15,732	(26,163)	(9,182)	(27,857)	(63,202)	(47,469)
Redding	756,006	8.6592%	113,405	(51,983)	(18,244)	(27,857)	(98,084)	15,320
Roseville	1,199,896	13.7435%	179,990	(69,586)	(24,422)	(27,857)	(121,865)	58,126
Santa Clara	3,694,413	42.3155%	554,180	(168,506)	(59,140)	(27,857)	(255,503)	298,677
Shasta Lake	203,493	2.3308%	30,525	(30,073)	(10,555)	(27,857)	(68,485)	(37,960)
Truckee Donner	158,790	1.8188%	23,819	(28,301)	(9,933)	(27,857)	(66,090)	(42,270)
Ukiah	109,901	1.2588%	16,486	(26,362)	(9,252)	(27,857)	(63,471)	(46,985)
Totals	8,730,633	100.0000%	\$1,309,637	(\$660,111)	(\$231,677)	(\$417,850)	(\$1,309,637)	0

JP#	Assessment A	mount \$ / MWh	\$0.150	
Member	CY18 Energy Delivered MWh	Share %	JPA Assessment	Participant Revenue Share
Alameda	347,535	3.9806%	\$52,132	\$4,475
BART	407,496	4.6674%	61,126	5,247
Biggs	15,636	0.1791%	2,346	201
Gridley	33,375	0.3823%	5,006	430
Healdsburg	76,705	0.8786%	11,506	988
Lodi	426,488	4.8850%	63,975	5,492
Lompoc	135,526	1.5523%	20,330	1,745
Palo Alto	906,251	10.3801%	135,942	11,670
Plumas Sierra	154,242	1.7667%	23,137	1,986
Port Of Oakland	104,879	1.2013%	15,732	1,351
Redding	756,006	8.6592%	113,405	9,735
Roseville	1,199,896	13.7435%	179,990	15,452
Santa Clara	3,694,413	42.3155%	554,180	47,575
Shasta Lake	203,493	2.3308%	30,525	2,620
Truckee Donner	158,790	1.8188%	23,819	2,045
Ukiah	109,901	1.2588%	16,486	1,415
Subtotal NCPA Participants	8,730,633	100.0000%	1,309,637	\$112,428
Other participants:				
TID ¹	804,439		7,639	
Other LEC Participants:				
City of Azusa ²	n/a		5,877	
CDWR ²	n/a		70,678	
MID ²	n/a		22,605	
PWRPA ²	n/a		5,629	
Subtotal Other LEC participants			104,789	
Subtotal Other participants	-		112,428	
Total NCPA and Other			\$1,422,065	•

 $^{^{1}\,}$ CY2018 MWH share of Geothermal generation (0.150~x 6.3305% x 804,439 MWh)

Azusa \$0.150 x 2.7857% x 1,406,533 CDWR \$0.150 x 33.5000% x 1,406,533 MID \$0.150 x 10.7143% x 1,406,533 PWRPA \$0.150 x 2.6679% x 1,406,533

Per LEC Project Management and Operations Agreement, Article 6.2.1.b JPA Cost rate x GES x Annual CY Mwh Generation