

2021 Budget

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2021 Budget

Strategic Direction

Purpose, Vision & Values

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Core Values: Strategically Essential for SMUD

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|------|------------------------------|-------|--|
| SD-1 | Purpose and Vision Statement | SD-8 | Employee Relations |
| SD-2 | Competitive Rates | SD-9 | Resource Planning |
| SD-3 | Access to Credit Markets | SD-10 | Innovation |
| SD-4 | Reliability | SD-11 | Public Power Business Model |
| SD-5 | Customer Relations | SD-12 | Ethics |
| SD-6 | Safety | SD-16 | Information Management & Security Policy |
| SD-7 | Environmental Leadership | SD-17 | Enterprise Risk Management |

Key Values: Provide Value-Added Services

- SD-13 Economic Development
- SD-14 System Enhancement
- SD-15 Outreach & Communication
- SD-19 Diversified Business

Purpose Statement

SD-1A SMUD is community-owned. Our purpose is to enhance the quality of life for our customers and community through creative energy solutions.

Vision Statement

SD-1B SMUD's vision is to be the trusted partner with our customers and community, providing innovative solutions to ensure energy affordability and reliability, improve the environment, reduce our region's carbon footprint, and enhance the vitality of our community.

Core Values: Strategically Essential for SMUD

- SD-2 Maintain Competitive Rates
- SD-3 Maintain Access to Credit Markets
- SD-4 Reliability - Meeting customer energy requirements
- SD-5 Maintain a high level of Customer Relations
- SD-6 Safety - Creating a safe environment for employees and the public is a core value of SMUD
- SD-7 Environmental Leadership - Community engagement, continuous improvement in pollution prevention, carbon reduction, energy efficiency, and conservation
- SD-8 Employee Relations - Developing and maintaining a high quality, inclusive workplace that engages and inspires employees to commit to SMUD's purpose, vision and values

Core Values: Strategically Essential for SMUD

- SD-9 Provide customer-owners with a sustainable power supply through the use of an integrated Resource Planning process
- SD-10 Deliver innovative solutions, products and services to our customers
- SD-11 Public Power Business Model – Support and strengthen the public power business model
- SD-12 Ethics – Maintain the public trust and confidence in the integrity and ethical conduct of the Board and SMUD employees
- SD-16 Information Management and Security Policy - Proper management of cyber and physical information are critical to effective risk management and to ensure regulatory compliance, business resiliency and customer satisfaction. SMUD will take prudent and reasonable measures to ensure information security, customer privacy and proper record management.
- SD-17 SMUD will implement and maintain an integrated enterprise risk management process that identifies, assesses, manages and mitigates a variety of risks facing SMUD, including financial, supply, operational, physical security, climate change, legal, legislative and regulatory, and reputational risk.

Key Values: Provide Value-Added Services

- SD-13 Economic Development – Promote economic vitality of our region and the growth of our customer base
- SD-14 Make selected distribution system enhancements such as relocation or underground placement of primary power lines.
- SD-15 Broad Outreach and Communication to SMUD's customers and the community
- SD-19 Broaden and diversify the products and services that SMUD offers

2021 Budget Performance Metrics

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Performance Metrics



Strategic Direction	Metric	2020 Forecast	2020 Target	2021 Target
SD-2 Competitive Rates	<u>Competitive System Average Rates</u>			
	Percent below Pacific Gas & Electric	35.7%	18.0%	18.0%
	Percent below each Customer Class	28.8% average below each Customer class	Meet 10% Goal for each Customer class	Meet 10% Goal for each Customer class
SD-3 Access to Credit Markets	Fixed Charge Ratio of at least 1.50	2.07	1.69	1.80
SD-4 Reliability	Customer Load Demand	100%	100%	100%
	SMUD Availability of Generation Assets [1]	98%	97%	97%
	Overall Availability of Transmission Assets	100%	>99.99%	>99.99%
	<u>Distribution System Reliability</u>			
	Duration of Outages (SAIDI) [2]			
	SAIDI With Major Event	N/A	67.5 - 93.3 min	67.5 - 93.3 min
	SAIDI Excludes Major Event	54.1	49.7 - 68.7 min	49.7 - 68.7 min
	Frequency of Outages (SAIFI) [2]			
SAIFI With Major Event	N/A	0.99 - 1.33	0.99 - 1.33	
SAIFI Excludes Major Event	0.9	0.85 - 1.14	0.85 - 1.14	
SD-5 Customer Relations	Customer Satisfaction Survey [3]	95%	95%	95%
	Value for What You Pay [4]	70%	70%	70%

Performance Metrics (continued)



Strategic Direction	Metric	2020 Forecast	2020 Target	2021 Target
SD-6 Safety	<u>Shift safety culture, improve safety results, and maintain positive financial performance</u>			
	Leading Indicator			
	Employee-Supervisor Interactions	95%	95%	95%
	Incident Reports ≤ 3 days	95%	95%	95%
	Incident Investigations ≤ 5 days	95%	95%	95%
	Days Away Restricted Time (DART)			
Annual average	1.2	1.0	1.0	
	Workers' Compensation			
	Maintain positive financial performance of the workers' compensation program.	\$0.59	\$0.94	\$0.85
	Public Safety			
	Corrective actions implemented (to protect the public from injuries related to SMUD ops. or facilities.)	100%	95%	N/A
SD-8 Employee Relations	<u>Employee Engagement</u>			
	Sustain Employee Engagement	N/A	>80%	>80%
SD-9 Resource Planning	<u>Renewable Energy to meet SMUD's Load</u>			
	Renewable Portfolio Standards (RPS)	34.8%	33.0%	35.8%
SD-13 Economic Development	Supplier Education and Economic Development (SEED) - Percent of Contract Dollars	20%	20%	20%

Footnotes:

- [1] Maintain high level of availability of generation assets (adjusted IEEE availability for peak load season June – September).
- [2] We have not had any Major Events thus far in 2020. The 2020 forecast is based on actuals through August 2020, and averages of data from 2015-2019 for September – December.
- [3] The Customer Satisfaction metric measures customers responding as very satisfied or satisfied with service received in the areas of New Connect, Billing Inquiries, Outbound Outage Communication, Tree Trimming, IVR One Payment and IVR Payment Arrangements.
- [4] Board target is to reach 70% by the end of 2025 and 80% by the end of 2030, with neither the average commercial customer score falling below 69%, nor the average residential customer score falling below 65% in any year. The VFP score for 2021 is expected to be impacted by the restart of late fees, shut-offs, collections, communication of commercial rate restructure, rate action and smaller rate increases, NEM proposal/Board approval, and COVID slow economic recovery.
- [5] Employee-Supervisory Interactions Incident Reports excludes incident types where the date of injury may be difficult to determine. It measures the percentage of reports completed with the target date, which is normally set to 3 days, but may be extended due to extenuating circumstances.
- [6] Incident Investigations excludes incident types where the investigation may require coordination of outside parties or may have a high degree of complexity. It measures the percentage of investigations completed within the target date, which is normally set to 5 days, but may be extended due to extenuating circumstances.
- [7] Current Board SD-6 target is to reduce SMUD's injury severity rate to 1.4 by 2020. The Board SD-6 is being revised for 2021; DART Rate is under development with a 5-year goal of ≤ 1.0 with a recommended range of 1.1 to 0.90.
- [8] The projected loss rates per \$100 of payroll are calculated based on SMUD's historical loss experience and actuarial judgment.
- [9] SMUD will meet the 2020 target (33% - 3,130 GWh) using forecasted 2020 generation (34.8% - 3,300 GWh). The 2021 Renewable Portfolio Standard (RPS) target is 35.75% (~3,400 GWh). The RPS statutes allow renewables procured above the compliance period targets can be carried over and applied in future compliance periods.

2021 Budget

Business Units & Segments and Organizational Chart

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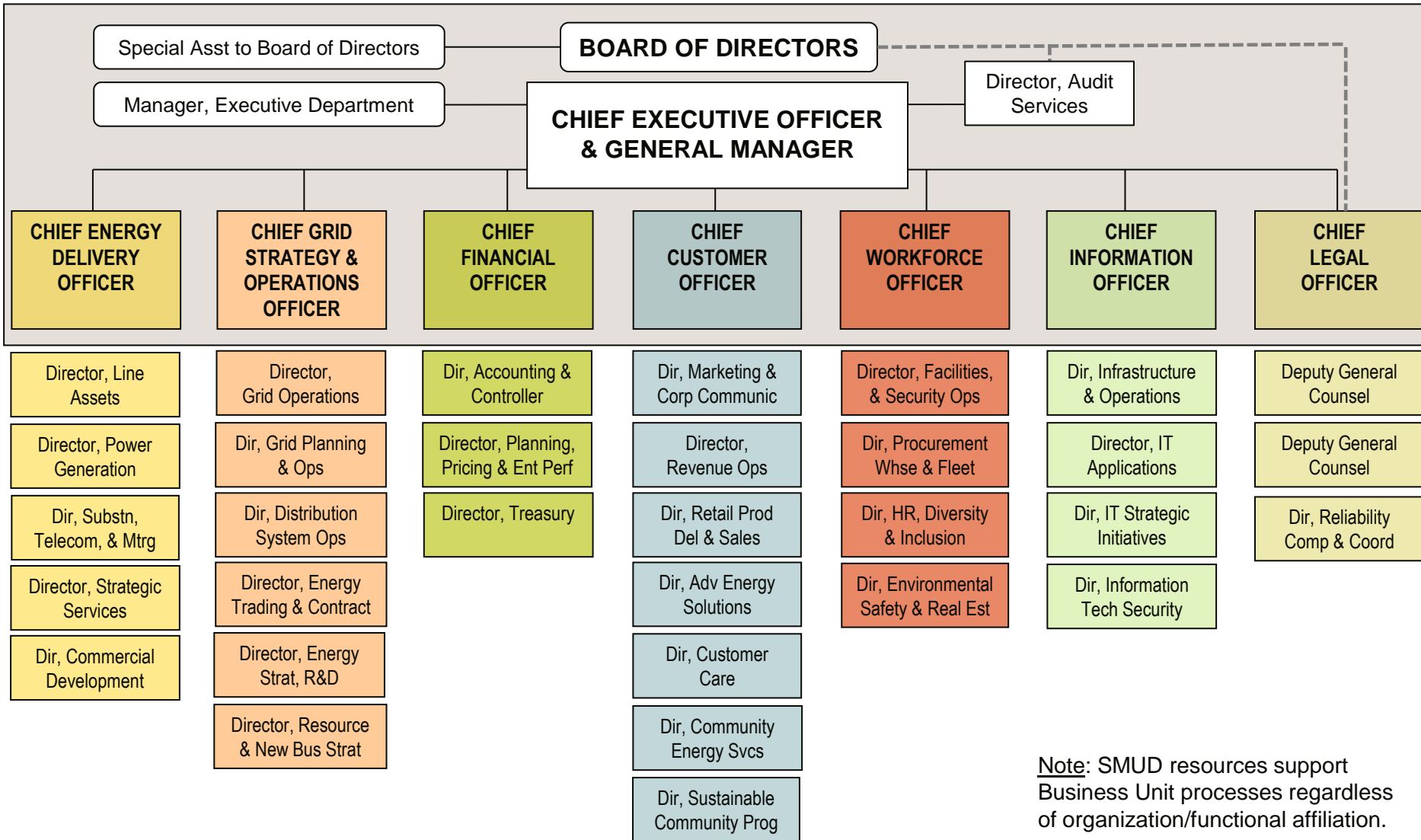


Business Units & Segments

The SMUD Budget is planned by Business Unit processes which in some cases differs from the organizational/functional reporting structure.

Customer/ Community	Energy Operations	Energy Delivery	Internal	Technology	Corporate/ Enterprise
Retail Product Delivery & Sales	Grid Planning & Operations	Power Generation	Operations	Applications & Projects	Governance
Advanced Energy Solutions	Commodity, Procurement & Sales	Grid Assets	Services	Infrastructure & Operations	Strategic & Finance
Revenue Services & Operations	Energy Strategy, Research & Development	Strategic Services	Support	Strategy Planning & Governance	Legal, Gov't Affairs & Reliability Compliance
Communic. Marketing & Community Relations	Resource & New Business Strategy	Commercial Development		Strategic Initiatives	Enterprise Affairs
Customer Services & Operations	Integrated Resource Plan			Cybersecurity	
Sustainable Communities					
Community Energy Services					
Lean Portfolio Mgmt					

Organization Chart by Executive



Note: SMUD resources support Business Unit processes regardless of organization/functional affiliation.

2021 Budget

Economic Outlook & Assumptions

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The planning data presented here is based on a recent update as part of the Corporate Resource Planning process.

Customer count is down slightly in the 2020 Forecast from what was assumed in the 2020 Budget. Looking ahead, we are seeing regular growth in the future in residential customers and commercial customers.

New customers to be added to SMUD's customer base in 2021 are projected to total approximately 4,644. This is less than a 1 percent annual growth rate, which is below the average growth during the past decade. Of the 2021 projection, 4,398 are new residential customers and 246 are other customers.

	2020 <u>BUDGET</u>	2020 <u>FORECAST</u>	2021 <u>BUDGET</u>
New residential customers	4,825	(174)	4,398
All other new customers	754	22	246
TOTAL new customers*	5,579		4,644
Residential customers	567,860	567,686	572,084
All other customers	75,880	75,902	76,148
TOTAL customers**	643,740	643,588	648,232

*Reflects monthly average instead of end-of-year count in order to reflect the fluctuation of SMUD's customer growth.

Inflation Escalation Factors:

The forecasted inflation factor for use where applicable in preparing the 2021 Budget is 2%. The longer-term outlook (ten years) used in the business strategy update is the same, at 2% per year.

The cost-of-living (COLA) increase for SMUD salaries and wages during 2021 is based on formulas contained in negotiated bargaining agreements.

(continued)

Energy Sales & Requirements

Description	2020 Budget	2021 Proposed	Change vs Budget
Expected System Peak (MW)	2,850	2,870	20
Expected Retail Energy Sales (GWh)	10,258	10,087	(171)
Expected Wholesale Sales, Distribution & Transmission Losses (GWh)	482	474	(8)
Expected Supply Requirements (GWh)	10,740	10,561	(179)
GENERATION			
Total SMUD Generation (GWh)	7,572	6,820	(753)
SMUD Generation as a % of expected supply requirement	71%	65%	-6%
PURCHASED POWER			
Net Purchased Power (GWh)	3,167	3,742	574
Net Purchased Power as % of expected supply requirement	29%	35%	6%
GAS			
Expected Gas Burn (NG+Biogas) for Thermal Generation and Steam Sales (mmBtu)	39,275,310	33,248,660	(6,026,650)
Committed Fuel (NG+Biogas) Purchases (mmBtu)	35,219,975	29,090,645	(6,129,329)
Committed Purchases (NG+Green Gas) as a % of Expected for Thermal Generation and Steam Sales	90%	87%	-2%
ACTUAL / FORWARD PRICES of UNCOMMITTED TRANSACTIONS			
On Peak Power Price Forecast (\$/MWh)	\$38	\$42	\$4
Off Peak Power Price Forecast (\$/MWh)	\$32	\$34	\$2
Flat Power Price Forecast (\$/MWh)	\$35	\$39	\$3
Forward Natural Gas Price Forecast (\$/mmBtu)	\$2.94	\$3.08	\$0.15

Energy sales to customers is projected to decrease from the 2020 Budget assumption.

Unmanaged Peak load is forecasted to increase by 20MW from the 2020 Budget assumption.

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Energy Requirements

Summary (GWh)	2020 Budget	2021 Proposed	Change vs Budget	Change vs Budget
Generation:	GWh	GWh	GWh	GWh
SMUD-Owned Large Hydro	1,463	1,503	40	3%
SMUD-Owned Gas Fired	4,580	4,239	(340)	-7%
SMUD-Owned Renewable	1,530	1,077	(452)	-30%
TOTAL - Generation	7,572	6,820	(753)	-10%
Market Energy:	GWh	GWh	GWh	GWh
Uncommitted Sales	(2,199)	(2,473)	(274)	12%
Long-Term Contracts	3,542	4,185	644	18%
Short-Term Purchases	0	0	(0)	0%
Uncommitted Purchases	1,879	2,087	208	11%
TOTAL - Market Transactions	3,222	3,799	577	18%
Transmission Losses	(55)	(58)	(3)	5%
TOTAL - Supply Requirement	10,740	10,561	(178)	-2%

(continued)

Power Supply Assumptions

The 2040 Energy Plan is the basis for the operating assumptions for the 2021 Budget. Electricity prices are forecast to be higher, and natural gas prices are forecast to be higher in the 2021 Proposed Budget than what was forecast in the 2020 Budget. The Upper American River Project (UARP) generation, renewable generation, and thermal generation are forecasted to be lower in the 2021 Budget.

SMUD became a Control Area, presently called a Balancing Authority (BA), in June 2002 and since then has operated its transmission and generation system independently. On January 1, 2006, the Western Area Power Administration's Sierra Nevada Region (WAPA-SNR) was integrated into the SMUD BA, followed on December 1, 2006, by the California-Oregon Transmission Project (COTP) – a 500kV transmission line - and the Modesto Irrigation District (MID). On May 8, 2009, together with MID and the cities of Redding and Roseville, SMUD entered into a Joint Powers Agreement to create the new Balancing Authority of Northern California (BANC). With regulatory approval on May 1, 2011, the operations of SMUD BA were transferred to BANC BA. BANC uses SMUD's existing employees and physical resources to be the BANC Operator. BANC's General Manager reports to a five-person Commission made up of SMUD, MID, City of Redding, City of Roseville, and Trinity Public Utility Districts chief executives. This BA, as an independent entity, is not subject to market disruptions that result from financially induced supply shortages within the California Independent System Operator (CAISO) or investor-owned utilities. SMUD is still subject to certain CAISO transmission, grid management and other costs for transactions that use the CAISO controlled grid. These costs have been included in SMUD's 2021 Budget.

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SMUD Generation

SMUD Hydroelectric (Upper American River Project): The 2021 Plan assumes median rainfall and normal starting reservoir levels in 2021. Generation is expected to be 1,558 GWh.

Other SMUD Generation (South Fork, Chili Bar PH, Photovoltaic, Solano Wind): The 2021 Plan assumes average generation subject to limitations governing the operation of each plant. The largest contributor, Solano Wind Phases 1, 2 & 3 is expected to generate 612 GWh.

SFA Cosumnes Power Plant: This 500 MW gas-fired combined cycle power plant began commercial operation in February 2006. Forecasted generation from this plant in 2021 is 3,698 GWh.

CVFA Carson Cogeneration: This gas-fired cogeneration project, which began commercial operation in October 1995, consists of a 61 MW combined cycle unit and a 42 MW peaking unit. With the installation of an auxiliary steam boiler in 2017, if running the cogeneration unit is uneconomic, it can be turned off. Energy will be supplied from the auxiliary boiler instead of the cogeneration unit. The forecasted generation from this facility in 2021 is 181 GWh.

SCA Procter & Gamble Cogeneration: This gas-fired cogeneration plant began commercial operation in March 1997. It consists of a 120 MW combined cycle power plant and a 49 MW peaking unit that became operational in May 2001. With the installation of an auxiliary steam boiler in 2016, if running the cogeneration unit is uneconomic, it can be turned off. Steam will be supplied from the auxiliary boiler instead of the cogeneration unit. Forecasted generation from this facility in 2021 is 454 GWh.

SPA Campbell Soup Cogeneration: This gas-fired combined cycle plant, began commercial operation in December 1997. It consists of a 170 MW combined cycle power unit. Beginning in 2008 the 72 MW McClellan gas turbine is also included under SPA. Forecasted generation from these two units in 2021 is 277 GWh.

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Purchased Power

The 2021 Plan assumes delivery of energy and capacity from the following contracts:

Western Area Power Administration (WAPA) / Central Valley Project (CVP): Provide 347 MW of capacity and 661 GWh of energy. Under a separate agreement, WAPA provides 38 GWh to serve its customers located within SMUD's service territory.

Kiefer Landfill: Provide a total of 12.0 MW of capacity and 109 GWh of energy under two separate agreements. The original Kiefer I contract was extended in November 2014, for an additional 10 years. The current Kiefer II contract was extended in March 2016, for an additional 10 years.

MM Yolo: Provide 2.4 MW of capacity and 21 GWh of green energy under an agreement that expires in June 2026.

IBR Highwinds: Provide 50 MW of capacity and 98 GWh of energy under an agreement signed in July 2015 to extend the original contract for additional 10 years.

IBR Biomass (previously RockTenn): Provide 45 MW of capacity and 180 GWh of energy under an agreement that expires in August 2021.

Grady Wind: Provide 200 MW of capacity and 934 GWh of energy of energy under an agreement that expires in December 2043.

enXco – Solar: Provide 1.0 MW of capacity and 2 GWh under an agreement which expires in August 2028.

Santa Cruz Landfill: Provide 1.5 MW of capacity and 12 GWh of energy under an agreement, which expires in September 2024.

Feed-in-Tariff Solar Projects: Provide 100 MW capacity and 212 GWh of energy delivered from all projects under a 20-year term ending in December 2030.

Van Warmerdam Dairy Biogas: Provide 0.5 MW of capacity and 2 GWh of energy under an agreement which expires in May 2033.

(continued)

Purchased Power, cont'd

New Hope Dairy Biogas: Provide 0.4 MW of capacity and 2 GWh of energy under an agreement which expires in August 2033.

Patua (aka: Gradient) Geothermal: Provide 19 MW of capacity and 147 GWh of energy under an agreement, which expires in December 2033.

Loyalton Biomass: Provide 4.2 MW of capacity and 33 GWh of energy under an agreement, which expires in March 2023.

Van Steyn Dairy Biogas: Provide 0.12 MW of capacity and 1 GWh of energy under an agreement, which expires in June 2035.

Camp Far West: Provide 6.8 MW of capacity and 21 GWh of energy under an agreement which expires in July 2031.

Conergy Solar: Provide 1.3 MW of capacity and 2 GWh of energy under an agreement that expires in August 2034.

Wildflower Solar: Provide 13 MW of capacity and 31 GWh of energy under an agreement that expires in December 2045.

Rancho Seco Solar: Rancho Seco I provides 11 MW of capacity and 23 GWh of energy under a 30-year agreement which expires in August 2036. Rancho Seco II will begin production on December 31, 2020 and will provide 160 MW of capacity and 337 GWh of energy through November 2039.

Recurrent Solar: Provide 55 MW of capacity and 171 GWh of energy under an agreement that expires in December 2037.

Sutter Energy Center: Provide 258 MW of capacity and 925 GWh of energy under a three-year contract with Calpine Energy Services, L.P. effective January 2021 from a natural gas-fired, combined-cycle.

CalEnergy: Provide 30 MW of capacity and 223 GWh of geothermal energy under an agreement expiring December 2039.

SB-859 Biomass: 2.7 MW capacity biomass project is expected in January 2021.

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Purchased Power

The balance of energy requirements to meet forecasted sales to customers will be met by short-term purchases of energy. Some of the long-term and short-term contracts will be delivered over SMUD's 528 MW share of the California-Oregon Transmission Project (Northwest) or under the South-of-Tesla transmission agreement with PG&E (Southwest & Southern California). These purchases are coordinated through SMUD's membership in the Western Systems Power Pool (WSPP), which facilitates sales and exchanges among its 30 member utilities, and through market trading. Lastly, another 5-year extension to the WAPA Custom Product ~300-MW sale/purchase contract with WAPA allows SMUD to import additional power from California Oregon Border through 2024.

2021 Budget

Budget Summary

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Overview

The 2021 Budget Authorization totals \$1.7 billion. This represents a decrease of \$62 million from the 2020 Budget. The 2021 Budget is a request to authorize new spending.

The 2021 SMUD Budget summarized on the following pages is a blueprint of planned operating, public goods and debt service expenses and capital expenditures for the fiscal year beginning January 1, 2021. Historical comparisons to the 2020 Budget adopted by the Board on November 20, 2019 are shown to put the 2021 Budget in perspective. A forecast of actual 2020 expenses is also shown.

The O&M and Capital Budgets are shown by Business Unit. SMUD Business Units correspond to business processes which deliver specific products and services to SMUD customers. The core business processes are represented by the Customer & Community Services, Energy Operations and Energy Delivery Business Units. Included within Energy Operations and Customer/Community are Public Good costs related to energy efficiency, low-income assistance, renewable generation and research and development. These costs are shown separately because they are designated as Public Goods programs as determined by statute.

The Technology, Internal Services and Corporate Services Business Units provide services which enable the other business units to perform their work. The Enterprise Business Unit contains contingency and reserve estimates for the organization. The planning and budgeting philosophy is to more accurately plan and measure the total cost of SMUD business processes and set performance improvement targets for the processes and Business Units that will most efficiently accomplish strategic goals. This budgeting methodology also most efficiently allocates and plans resources from throughout SMUD to the Business Units and work processes.

Within each Business Unit budget, work processes are subdivided into business segments and individual business processes. Budget detail is provided at both levels. Business segments and processes enable each business unit to effectively plan and measure performance of its operations at a manageable level.

The budgeted costs shown under each core Business Unit include all the costs of performing the work planned for 2021. These include labor costs from departments throughout SMUD which perform work in the core business processes. Labor costs include employee benefits. Also included in the budget is a surcharge allocation of internal service costs such as transportation, facilities, technology, human resources, and security. Expenditures budgeted by Technology and Internal Services represent those process costs that are not allocated to the core business units, such as dedicated software implementations or enhancements that do not meet minimum SMUD criteria for capitalization. The Corporate Services budget includes insurance and risk management, cash and debt management, and corporate legal, reliability compliance, legislative, regulatory and government relations, planning and performance, executive management and Board of Directors; a portion of this budget is allocated to Capital and Public Good. The Enterprise budget includes contingency and reserve estimates for the organization.

The 2021 Budget includes the following major components:

OPERATING EXPENSES (O&M): Expenses related to producing and acquiring energy, operating and maintaining the electrical delivery system, providing service to customers including public goods (energy efficiency, low-income assistance, new renewable generation sources, and research and development of advanced technologies) programs, and corporate activities. Included within this category as a separate line item are commodity costs associated with energy supply. These costs include purchased power, fuel for energy production, and transmission wheeling costs.

Also included under Energy Delivery are fuel, operating and interest expense associated with CVFA's Carson Cogeneration plant, SCA's Procter & Gamble plant, SPA's Campbell Soup Cogeneration plant, SFA's Cosumnes Power Plant, NCGA No. 1 and NCEA pass-through gas costs. These expenses are shown in the SMUD Budget because SMUD will reimburse CVFA, SCA, SPA, SFA, NCGA No. 1 and NCEA for their costs under the terms of the Power and Gas Purchase Agreements. The detailed CVFA, SCA, SPA, SFA, NCGA No. 1 and NCEA Budgets are also in separate booklets and/or resolutions as they will be approved by the CVFA, SCA, SPA, SFA, NCGA No. 1 and NCEA Commissions.

CAPITAL INVESTMENT: Investment in additions and improvements to SMUD's property, plant and equipment. The Capital Investment budget includes all qualifying costs related to acquiring or constructing tangible and intangible assets which meet SMUD's capitalization guidelines - cost exceeding \$5,000 and an estimated service life greater than two years. SMUD follows Federal Energy Regulatory Commission (FERC) capitalization guidelines which dictate the inclusion of all direct costs (labor, employee benefits, materials, services and other) and a proportionate share of indirect costs (engineering and construction supervision and support, transportation, insurance, etc.) related to capital projects. Capital assets are depreciated on a straight-line basis over their estimated useful service life.

ALLOCATED: Costs in the two supporting business units, Technology and Internal Services, which enable the core business units to perform work. These costs are allocated to both O&M and capital costs, based on the quantity of labor hours. The aggregated allocated costs for Technology and Internal Services are presented in the budget documentation separately as information only; the actual costs are reflected in each of the Business Unit's budgets as the total cost of their work processes.

DEBT SERVICE: Interest expense on and principal repayments of SMUD's outstanding long-term debt and commercial paper notes, any revenues or payments on interest rate swaps, and trustee fees and debt issuance costs. Detail is provided in the Budget Summary.

Description of Cost Categories

Activity Type Labor	SMUD employee labor planned to a business unit work process. Each Activity Type has a standard hourly charge-out rate that is based on work (non-leave) hours, average annual employee salaries, and includes benefits.
Materials & Equipment	Materials and equipment either issued from inventory or purchased for a specific project or task.
Dues & Publications	Dues and publications and general membership requirements to accomplish work.
General Expenditures	All services and other non-material costs not covered by other specific cost categories including training, travel, rents, leases, licenses, fees, taxes, etc.
Outside Services	The cost of outside services contracts, consultants, and outside legal service.
Advertising	The cost of advertising.
Utilities & Postage	The cost of telephones, other utilities and postage.
Insurance	The cost of property and liability insurance.
Rebates & Incentives	The cost of energy efficiency rebates and incentives.
Commodities	The cost of purchased power, wheeling, and fuel for SMUD and JPA generating plants.
Surplus/Whsl Pwr Sales	The revenue generated from selling energy which is not needed to meet SMUD retail load.
LI/LS Rate Discount	The discount given to customers who qualify for the Low Income or Medical Energy Discount (MED) rate subsidy.
Cost Reductions/Reimb	Reimbursements, cost-sharing grants, or pass-through amounts received from outside parties to reduce net costs.
Cost Center Overhead	A rate developed to recover the indirect costs of a Cost Center. Includes Activity Type labor for administration, supervision, training, and miscellaneous general expenses such as office supplies and travel. It is assessed per hour of Activity Type Labor planned directly to the work.
Surcharges	Surcharge rates developed to recover 1) an allocation of internal service costs such as transportation and technology assessed per hour of Activity Type Labor planned directly to the work, 2) the costs of procuring outside service agreements (excluding outside legal service) and cost of procuring, storing, and handling materials and equipment assessed relative to the contract amount or whether material issued from inventory or purchased specifically for a project or task, 3) miscellaneous general and administrative SMUD expenses including insurance and risk management, cash management, debt management, and other assessed to capital and public good projects based on a flat percentage of overall SMUD activity type labor.

O&M Budget Summary

Description (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
<i>Customer/Community (excl. PubGd)</i>	\$130,648	\$141,435	\$139,439	(\$1,996)	-1%
<i>Public Good</i>	36,524	35,811	28,643	(7,168)	-20%
Customer/Community	167,172	177,246	168,082	(9,163)	-5%
<i>Energy Delivery (excl. JPA)</i>	217,140	207,053	228,699	21,645	10%
<i>JPA Interest Expense</i>	5,822	5,822	5,332	(490)	-8%
Energy Delivery (excl. JPA)	222,962	212,875	234,030	21,155	10%
<i>Commodity (net)</i> [1]	456,217	474,182	440,889	(33,293)	-7%
<i>Energy Operations (excl. PubGd)</i>	83,171	109,269	96,746	(12,523)	-11%
<i>Public Good</i>	21,725	24,287	39,451	15,164	62%
Energy Operations	561,113	607,738	577,086	(30,652)	-5%
Internal Svcs	21,422	15,201	16,363	1,162	8%
Technology	31,581	40,358	35,215	(5,143)	-13%
Corporate Services	65,541	62,577	59,624	(2,953)	-5%
<i>Enterprise (excl. PubGd)</i>	6,203	1,400	17,102	15,702	>999%
<i>Public Good</i>	2,477	9,000	0	(9,000)	-100%
Enterprise	8,679	10,400	17,102	6,702	64%
Other Employee Benefits [2]	(3,864)	31,651	32,704	1,053	3%
O&M Budget Authorization	\$1,074,605	\$1,158,045	\$1,140,206	(\$17,839)	-2%
Revenue	(311)	(55)	(25)	30	55%
O&M Net	\$1,074,294	\$1,157,990	\$1,140,181	(\$17,809)	-2%

[1] Net of surplus sales. The 2021 Budget assumes median water year.

[2] Other Post-Employment Benefits (OPEB) and Workers Compensation - These benefits are not allocated or included as a labor expense in the Business Units. 2020 forecast includes \$20M reimbursement from OPEB that was paid to PERS.

O&M Budget Summary (continued)



Cost Category (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
ActivityType Labor	\$237,604	\$244,249	\$245,707	\$1,458	1%
Material & Equipment	10,345	10,204	9,614	(589)	-6%
Dues & Publications	9,233	7,048	6,584	(464)	-7%
General Expenditures	25,279	34,791	52,377	17,586	51%
Outside Services	147,010	145,698	148,150	2,452	2%
Advertising	2,910	3,665	3,725	60	2%
Utilities & Postage	7,810	7,364	7,716	352	5%
Insurance	22,088	22,477	24,228	1,751	8%
Rebates & Incentives	24,616	29,097	28,216	(882)	-3%
Commodities	521,214	598,062	587,406	(10,656)	-2%
Surplus/Whsl Pwr Sales	(53,594)	(77,974)	(97,957)	(19,982)	26%
Non-Labor Expenditures	716,911	780,432	770,060	(10,372)	-1%
Cost Reduction/Reimb	(19,192)	(58,080)	(62,552)	(4,472)	8%
Cost Center Overhead	49,203	56,817	54,115	(2,703)	-5%
Surcharges	88,123	97,154	94,840	(2,314)	-2%
Expenditures Subtotal	1,072,648	1,120,572	1,102,170	(18,402)	-2%
JPA Interest	5,822	5,822	5,332	(490)	-8%
Other Employee Benefits	(3,864)	31,651	32,704	1,053	3%
O&M Budget Authorization [1]	\$1,074,605	\$1,158,045	\$1,140,206	(\$17,839)	-2%
Revenue	(311)	(55)	(25)	30	55%
O&M Net	\$1,074,294	\$1,157,990	\$1,140,181	(\$17,809)	-2%

[1] O&M Budget Authorization includes Public Good. A summary of Public Good is provided on the following page.

O&M Budget Summary (continued)



Public Good

Description (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
Energy Efficiency	\$33,219	\$37,135	\$35,666	(\$1,469)	-4%
Residential Assistance	15,513	13,627	11,193	(2,435)	-18%
Renewables	2,787	4,525	724	(3,801)	-84%
Research & Development	9,207	13,811	20,511	6,700	49%
Public Good Budget Authorization	\$60,725	\$69,098	\$68,094	(\$1,004)	-1%
Rate Subsidy	32,375	29,578	40,021	10,443	35%
Total Public Good <i>[1], [2]</i>	\$93,100	\$98,676	\$108,115	\$9,439	10%

[1] Public Good expenditures are included in SMUD O&M summary (this table is information only)

[2] Specific information is provided within Customer/Community and Energy Operations.

O&M Budget Summary (continued)



Commodity Budget

Description (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
Purchased Power (net)	\$270,369	\$239,309	\$251,152	\$11,843	4%
Fuel for Generation	158,560	203,924	159,567	(44,357)	-28%
Transmission	27,289	30,949	30,169	(780)	-3%
O&M Commodities	\$456,217	\$474,182	\$440,889	(\$33,293)	-7%

The O&M Proposed Budget for 2021 totals \$1,140 million, which is \$18 million or 2 percent lower than the 2020 Budget.

Business Unit O&M:

Total Business Unit O&M, excluding Commodity and Public Good, is \$631.2 million, which is \$16.5 million higher than the 2020 Budget. The 2021 Proposed Budget includes increased mandatory spending for Vegetation Management and Wildfire Mitigation. The 2021 budget also funds ongoing efforts for Community Initiatives, maintaining operations, and Transportation Electrification. Transportation Electrification is a critical part of our newly-adopted 2040 Energy Plan and an important part of our strategy to continue to provide a leadership role in the region's transformation to a low-carbon future.

More detailed and specific information is provided within each Business Unit's documentation.

Public Good: Total Public Good is \$108.1 million, an increase of \$9.4 million, after inclusion of rate subsidies. The Public Good Budget is \$68.1 million. The difference is because the Budget represents the cash disbursement portion of the program that requires Board authorization.

By December 2021, the number of subsidized customers is expected to be approximately 128,983. The total cost of the EAPR subsidy is budgeted at \$38 million in 2021, an increase of \$10.7 million from 2020, and the subsidy for customers using medical equipment decreased by \$0.2 million to \$1.6 million. Total subsidies are \$40 million.

Energy efficiency spending decreased \$1.5 million. Incorporation of savings from codes and standards was included as a component of the energy efficiency portfolio to match standard industry practice going forward. The energy efficiency budget remains in line with the goal of achieving savings of 1.5% of average annual retail energy sales. Research & Development increased \$6.7 million to \$20.5 million to reflect increased investment in innovation and achieving a low-carbon future.

More detailed and specific information is provided within the Customer and Energy Operations Business Unit documentation.

Commodities: The Commodity budget for 2021 of \$440.9 million is \$33.3 million lower than the 2020 Budget. Purchased power is increasing primarily due to Sutter/Calpine contract extending for the full year (capacity and energy), Mid-River capacity contract, and additional Renewable Energy Credits (REC) purchases as part of the optimization strategy (proceeds from biogas sale). Fuel for Generation is decreasing due to biogas sales, Rosa sale, and shift of SMUD thermal to Sutter/Calpine due to reduced fuel cost. Further details on power supply information can be found on pages 17-23.

Other Employee Benefits: SMUD's Other Employee Benefits, is \$32.7 million, an increase of \$1 million. This item consists of the O&M portion (unfunded liability) of Other Post-Employment Benefits (OPEB) expense of \$29 million and \$3.7 million of workers compensation.

The total OPEB cost of \$39 million is the sum of the O&M portion of \$29 million and the current year contribution of \$9.6 million. OPEB are costs related to other post employment benefits other than pension (primarily health and dental insurance), for SMUD current and future retirees.

Capital Budget Summary

Description (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
Customer/Community	\$4,672	\$4,406	\$7,298	\$2,892	66%
Energy Delivery	230,764	261,380	208,262	(53,118)	-20%
Energy Delivery Resource Projects	15,061	36,845	60,720	23,874	65%
Energy Operations	1,835	5,899	5,354	(545)	-9%
Energy Operations Resource Projects	3,019	3,250	3,000	(250)	-8%
Internal Services	25,159	27,531	33,902	6,372	23%
Technology	29,158	36,100	26,267	(9,833)	-27%
Corporate	0	6,298	0	(6,298)	-100%
Contingency & Reserve	44,800	74,900	46,100	(28,800)	-38%
Capital Budget Authorization	\$354,467	\$456,610	\$390,903	(\$65,706)	-14%
Revenue	(513)	(705)	0	705	-100%
Capital Net	\$353,954	\$455,904	\$390,903	(\$65,001)	-14%

Capital Budget Summary (continued)



Cost Category (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
ActivityType Labor	\$64,395	\$65,974	\$62,642	(\$3,331)	-5%
<i>Material & Equipment</i>	61,293	69,005	72,415	3,410	5%
<i>Dues & Publications</i>	93	201	91	(110)	-55%
<i>General Expenses</i>	52,247	84,964	68,471	(16,493)	-19%
<i>Outside Services</i>	150,878	194,438	154,510	(39,928)	-21%
<i>Advertising</i>	11	0	0	0	0%
<i>Utilities & Postage</i>	11	6	3	(3)	-50%
<i>Insurance</i>	215	656	659	3	0%
Non-Labor Expenses	264,748	349,269	296,148	(53,121)	-15%
Cost Reduction/Reimb	(24,898)	(15,258)	(21,870)	(6,612)	43%
Expenditures	304,245	399,984	336,921	(63,064)	-16%
Cost Center Overhead	16,801	18,595	18,147	(447)	-2%
Surcharges	33,421	38,030	35,835	(2,195)	-6%
Capital Budget Authorization	\$354,467	\$456,610	\$390,903	(\$65,706)	-14%
Revenue	(513)	(705)	0	705	-100%
Capital Net	\$353,954	\$455,904	\$390,903	(\$65,001)	-14%

Capital Budget Summary (continued)



Project Summary (\$000s)	2021 <i>[1]</i>	2022-23 <i>[2]</i>
Customer/Community	\$ 6,884	\$ -
<i>Meters</i>	6,884	
Energy Operations	\$ 8,354	\$ 9,859
<i>Energy Operations Technology</i>	1,180	1,606
<i>Gas</i>	3,000	
<i>Interconnection</i>	1,112	
<i>Research & Development</i>	667	160
<i>Substation Land & Easement</i>	2,395	8,094
Internal Services	\$ 33,902	\$ 21,731
<i>Environmental</i>	2,540	9,818
<i>Facilities</i>	20,019	11,912
<i>Vehicle Replacement</i>	11,343	
Technology	\$ 26,681	\$ 15,148
<i>Customer Technology</i>	784	
<i>Grid Technology</i>	6,503	613
<i>IT Lifecycle and Infrastructure</i>	6,311	2,270
<i>Telecom</i>	3,722	
<i>Enterprise Technology</i>	4,384	3,548
<i>Distribution Management System</i>	4,977	8,717

Capital Budget Summary (continued)



Project Summary (\$000s)	2021 <i>[1]</i>	2022-23 <i>[2]</i>
Energy Delivery	\$ 268,982	\$ 337,774
<i>Cable Replacement</i>	23,278	
<i>Decommissioning</i>	6,751	11,609
<i>Gas Pipeline</i>	866	4
<i>Hydro License</i>	26,942	27,724
<i>Hydro Other</i>	18,470	8,466
<i>Hydro Production</i>	9,896	25,420
<i>Line Projects</i>	45,623	27,918
<i>New Services/Local Agency</i>	12,627	2,135
<i>New Substation</i>	24,314	12,333
<i>Other Energy Assets</i>	558	491
<i>Pole Replacement</i>	19,893	
<i>Renewable Production</i>	2,911	10,801
<i>Substation Lifecycle and Improvements</i>	31,185	26,667
<i>Thermal Production</i>	1,362	200
<i>Solano 4</i>	11,409	99,385
<i>Transmission Substation</i>	23,038	76,852
<i>Transmission Line</i>	9,859	7,770
Corporate	\$ 46,100	\$ -
<i>Corporate Contingency</i>	46,100	
Capital Budget Authorization <i>[1], [2]</i>	\$ 390,903	\$ 384,512

[1] Requested Board Authorization amount for 2021 spending.

[2] Provided for Board information as an estimate of the amount needed to complete projects started in 2021 or earlier. 2022-23 costs do not include amounts for ongoing annual programmatic spending or for projects starting after 2021.

SMUD has historically had two categories of capital for budget authorization, Annual and Reserve/Contingency Capital. Annual Capital is for projects with completion dates or specific milestone dates within the current budget year and as such budget dollars are requested during the annual budget cycle. Projects that were approved in prior years but have not been completed are resubmitted to the Board annually for approval to continue the project. Reserve/Contingency Capital projects will be completed if load growth or customer growth is greater than expected, if there are unexpected expenditures, or if there are projects in which the planning phase will be complete and work will begin in 2021.

Capital: The proposed 2021 capital investment budget is \$390.9 million, for planned investment in generation, transmission, distribution, buildings, vehicles, technology and other assets critical to meeting the energy needs of our customers. Proposed ongoing capital expenditures go through a rigorous evaluation and prioritization process, based on value and risk, to ensure we fund those that have the highest contribution to the Board's strategic directives. This total includes the Reserve Capital Budget of \$15 million for unexpected end-of-year project carryover and capital contingency.

Major capital expenditures planned in 2021 include work for Station E and Station G, starting development work for additions to our wind farm with Solano Phase IV, and the purchase of Chili Bar. Ongoing capital planned in 2021 includes cable and pole replacement programs, installing new meters, and new fleet purchases. Technology investments included in the 2021 Proposed Budget are to complete the Advanced Distribution Management System (ADMS), ongoing work for Workforce Optimization, and improvements to HR systems and network communications systems.

Contingency and Reserve in the 2021 Proposed Budget totals \$46.1 million. This contingency/reserve money is planned for the following potential items: reserve for carry-over and unexpected capital projects, system enhancement projects, land purchases, and inventory/spare parts purchases.

More detailed and specific information is provided within each Business Unit's Documentation.

Allocated Budget Summary



Description (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
Internal Services	\$63,343	\$70,441	\$68,938	(\$1,504)	-2%
Technology	61,707	65,620	62,378	(3,242)	-5%
Total Allocated Budget <i>[1]</i>	\$125,050	\$136,061	\$131,316	(\$4,745)	-3%

[1] Allocated Budget expenditures are included in all SMUD Business Unit's O&M and Capital summaries (this table is information only)

Allocated Budget Summary (continued)



Cost Category (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	\$ Change vs Budget
ActivityType Labor	\$59,235	\$63,974	\$65,899	\$1,925	3%
<i>Material & Equipment</i>	35,275	12,831	28,532	15,701	122%
<i>Dues & Publications</i>	126	90	113	23	25%
<i>General Expenses</i>	731	1,226	460	(766)	-62%
<i>Outside Services</i>	10,165	33,871	12,951	(20,921)	-62%
<i>Advertising</i>	35	153	44	(110)	-72%
<i>Utilities & Postage</i>	1,497	1,793	1,844	50	3%
<i>Insurance</i>	285	294	317	23	8%
Non-Labor Expenses	48,113	50,259	44,260	(5,999)	-12%
Cost Reduction/Reimb	(73)	(90)	(436)	(346)	383%
Expenditures	107,275	114,143	109,723	(4,420)	-4%
Cost Center Overhead	12,315	16,175	15,437	(737)	-5%
Surcharges	5,459	5,743	6,155	412	7%
Total Allocated Budget [1]	\$125,050	\$136,061	\$131,316	(\$4,745)	-3%

[1] Allocated Budget expenditures are included in all SMUD Business Unit's O&M and Capital summaries (this table is information only)

Allocated Budget Summary (continued)



The Allocated Proposed Budget for 2021 totals \$131.3 million, which is \$4.7 million lower than the 2020 Budget. This is shown as **information only** as 100% of these allocated expenditures are included in the budget dollars of all SMUD O&M and Capital described in this documentation. Internal Services and Technology costs are allocated to business units based on the quantity of labor hours.

More specific and detailed information is provided within Internal & Technology Business Unit Documentation.

Position Count Summary



Executive Hierarchy	2020 Full-time	2020 Limited Term	2020 Part-time	2020 Approved Positions	2021 Full-time	2021 Limited Term	2021 Part-time	2021 Positions Planned	Increase/Decrease
CEO & General Manager	33	1	1	35	32	0	1	33	(2)
Chief Legal Officer	40	2	4	46	38	0	4	42	(4)
Chief Financial Officer	88	7	6	101	90	3	5	98	(3)
Chief Energy Delivery Officer	694	27	13	734	681	24	7	712	(22)
Chief Grid Strategy & Operations Officer	289	3	23	315	281	0	22	303	(12)
Chief Customer Officer	414	47	113	574	417	44	113	574	0
Chief Workforce Officer	367	9	21	397	354	8	9	371	(26)
Chief Information Officer	262	15	49	326	264	13	37	314	(12)
Full-time				2,187				2,157	(30)
Limited Term				111				92	(19)
Part-time				230				198	(32)
SMUD Total	2,187	111	230	2,528	2,157	92	198	2,447	(81)

Position Count: The full-time count is identified in the Board Resolution.

Labor Cost Summary



Executive Hierarchy (\$000)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
CEO & General Manager	\$6,157	\$6,348	\$6,177	(\$171)	-3%
Chief Legal Officer	5,810	6,036	5,797	(239)	-4%
Chief Financial Officer	11,408	11,482	11,518	36	0%
Chief Energy Delivery Officer	96,695	102,698	101,355	(1,343)	-1%
Chief Grid Strategy & Operations Officer	43,209	44,595	44,581	(14)	0%
Chief Customer Officer	48,587	51,438	51,351	(86)	0%
Chief Workforce Officer	39,024	40,495	39,811	(684)	-2%
Chief Information Officer	37,007	39,617	39,033	(584)	-1%
Salaries & Wages*	\$267,550	\$284,038	\$281,710	(\$2,328)	-0.8%
Overtime	\$20,346	\$18,671	\$17,913	(\$758)	-4.1%
SMUD TOTAL	\$287,896	\$302,709	\$299,623	(\$3,086)	-1.0%

*Salaries & Wages includes paid leave ----- 2020 Budget not adjusted for any organizational realignment

Labor Salaries: The labor summary reflects the cost of wages for SMUD employees. The budget for labor and associated benefit costs is included on the previous budget summary pages.

Benefits Summary

Summary (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
Active Employee Benefits	\$40,860	\$44,970	\$45,188	\$218	0%
Administer Benefits	2,003	2,594	2,532	(62)	-2%
Normal Cost Retirement Funding (OPEB)	9,451	9,547	9,597	50	1%
Subtotal Health & Welfare	\$52,315	\$57,112	\$57,317	\$206	0%
FICA Contribution	21,125	22,703	22,472	(231)	-1%
Retirement Contribution	84,152	84,614	71,159	(13,455)	-16%
Subtotal FICA and Retirement	\$105,277	\$107,317	\$93,631	(\$13,687)	-13%
TOTAL	\$157,591	\$164,429	\$150,948	(\$13,481)	-8%

Benefits: The benefits summary reflects costs for active and retired employee benefits, the costs to administer those benefits, and FICA and retirement contributions for current staff. 2021 proposed budget is decreasing mainly due to lower staffing levels compared to 2020 Budget, partially offset by increasing medical and other benefits costs.

2021 Budget Debt Service

Powering forward. Together.



Debt Service Budget



The following schedules show the summary and details of the 2021 Proposed Budget for Debt Service. SMUD issues Electric Revenue Bonds and Commercial Paper Notes to finance long-lived capital assets. The Debt Service Budget includes accrued interest expense on outstanding Electric Revenue Bonds and Commercial Paper Notes, net of any swap revenues tied to debt issues, scheduled principal repayments of Bonds and Commercial Paper, trustee fees associated with administration of debt service payments, and interest expense and issuance costs associated with planned new debt issues.

Revenue Bond Interest totals \$113.6 million in the 2021 Budget, an increase of \$15.2 million from 2020.

Commercial Paper Interest totals \$3.8 million in the 2021 Budget, a decrease of \$1 million from 2020. Short-term interest rates assumed for 2021 are an average of 0.52%; The budget assumes an average commercial paper balance of \$100 million.

Scheduled Principal Repayments of revenue bonds and commercial paper notes total \$98 million in 2021, a \$5.1 million increase from 2020.

Fees/Bond Issuance Costs of \$2.1 million are included for new 2021 bond issuances and related fees.

Debt Service Budget (continued)



Debt Service (\$000s)	2020 Forecast	2020 Budget	2021 Proposed	\$ Change vs Budget	% Change vs Budget
Interest Expense ¹	\$102,467	\$103,245	\$117,425	\$14,180	14%
Principal Repayments	92,920	92,920	98,040	5,120	6%
Fees/Bond Issuance Cost	1,850	1,836	2,079	243	13%
Total Debt Service	\$197,237	\$198,001	\$217,544	\$19,543	10%
Allocated to JPAs	(6,126)	(6,126)	(3,812)	2,314	-38%
NET DEBT SERVICE	\$191,111	\$191,875	\$213,732	\$21,857	11%

[1] Build America Bonds are shown gross of the rebate of \$9.3 million expected in 2021. The budget authorization is requested gross of the rebate. Includes net debt related swap payments and interest on long-term, variable rate, and subordinated debt. Assumes an interest rate of 4.34% (incl. all related fees & swaps) on avg. commercial paper balance of \$100 million.

Debt Service Budget (continued)



SUMMARY OF DEBT SERVICE ON SMUD BOND ISSUES (\$000s)						
Date Issued	Issue	1/1/2021 Principal Balance	Issued Interest Rate	Final Maturity Date	2021 Scheduled Principal Payment	2021 Interest Expense
Electric Revenue Bonds						
Jun-97	Series K ¹	72,620	5.25% to 5.90%	2024	16,785	113
May-09	Series V ²	200,000	6.322% (4.11% net)	2036	-	12,644
Jul-10	Series W ³	250,000	6.156% (4.00% net)	2036	-	15,390
Sep-11	Series X (Refunding)	156,770	1.50% to 5.00%	2028	29,740	7,229
Jan-12	Series Y (Refunding)	169,530	3.00% to 5.00%	2033	5,765	8,186
May-13	Series A	132,020	3.75% and 5.00%	2041	-	6,592
May-13	Series B (Refunding)	84,905	3.00% to 5.00%	2033	3,025	4,072
Jul-16	Series D (Refunding)	133,360	5.00%	2028	9,200	6,368
Dec-17	Series E (Refunding)	152,560	3.00% to 5.00%	2028	19,690	7,256
Aug-18	Series F (Refunding)	141,480	5.00%	2028	13,835	6,813
Apr-19	Series G	191,875	5.00%	2041	-	9,352
May-20	Series H	400,000	4.00% to 5.00%	2050	-	18,699
Aug-20	Series I ⁴ (Refunding)	0	1.55%	2028	-	875
	Subtotal	<u>2,085,120</u>			<u>98,040</u>	<u>103,588</u>
Subordinated Electric Revenue Bonds						
Jul-19	Series A	100,000	5%	2049	-	5,000
Jul-19	Series B	100,000	5%	2049	-	5,000
	Subtotal	<u>200,000</u>			<u>-</u>	<u>10,000</u>
	Total Outstanding Bonds	<u>2,285,120</u>	Principal & Interest Payments		<u>98,040</u>	<u>113,588</u>
	Total Debt Service				<u>98,040</u>	<u>113,588</u>

1) Swapped to a variable rate for the life of the debt, interest expense net of swap payment. Interest expense without swap would be \$3,371,944.

2) Interest expense gross of federal government Build America Bond rebate of \$4,173,152.

3) Interest expense gross of federal government Build America Bond rebate of \$5,079,470.

4) Forecasted debt service based on 2011X refunding

2021 Budget

Business Forecast

Powering forward. Together.



The 2021 business forecast is a set of pro forma (projected) financial statements, which are derived from the 2021 Budget. The financial statements depict the expected results of operations (Income Statement) and cash position (sources and uses of cash) at the end of the 2021 budget year. The business forecast also includes "non-cash" expenses such as depreciation and amortization of capital and regulatory assets, which are not included in the 2021 Budget because funds were expended in prior budget years. SMUD's budget presents costs on a business unit basis, which is similar to FERC groupings.

The pro forma financial statements include the consolidated accounts and operations of SMUD, the Central Valley Financing Authority (CVFA), the Sacramento Cogeneration Authority (SCA), the Sacramento Power Authority (SPA), the Sacramento Financing Authority (SFA), the Northern California Gas Agency No. 1 (NCGA No. 1) and the Northern California Energy Authority (NCEA). CVFA, SCA, SPA and SFA are joint powers agencies between SMUD and other entities which have issued debt to construct the Carson Cogeneration plant, Procter & Gamble Cogeneration plant, Campbell Soup Cogeneration plant and the Cosumnes Power Plant, respectively, and own and operate the plants. SMUD has entered into Power Purchase Agreements with CVFA, SCA, SPA and SFA, to purchase all of the plants' output and pay for JPA and plant costs. NCGA No. 1 is a joint powers agency that has issued bonds and used the proceeds to prepay long-term natural gas supply contracts. SMUD has entered into an agreement to buy all of the gas procured by NCGA No. 1, but is not liable for repayment of the bonds in the event of a default. NCEA is a joint powers agency that has issued bonds and used the proceeds to prepay long-term commodity supply contracts. SMUD has entered into an agreement to buy all of the commodities procured by NCEA, but is not liable for repayment of the bonds in the event of a default. The relationship between SMUD, CVFA, SCA, SPA, SFA, NCGA No. 1 and NCEA meets the criteria established by the Governmental Accounting Standards Board for consolidation in the controlling entity's financial statements.

The budgeted and actual fixed charge ratio and net income as shown on the Pro Forma Income Statement are primary measures of SMUD's financial performance which are monitored closely by the bond rating agencies in setting SMUD's bond rating. The fixed charge ratio is a measure of the number of times net operating cash flow before interest expense covers total cash debt service payments, including both interest and principal, for SMUD, the JPAs and SMUD's share of TANC debt service. Net income is the residual after deducting all expenses from revenues for the period.

The 2021 Budget will produce \$78 million of net income for SMUD; this is an increase of \$29 million from the 2020 Budget. The fixed charge coverage is planned at 1.80 times operating cash flow. Revenue from electric sales has increased compared to the 2020 Budget due to the impact of the 2021 rate increase.

SMUD's unrestricted cash balance is forecasted to be \$439 million at the end of 2021. Any new money needs in 2021 will be handled through our commercial paper program. We currently maintain \$400 million in commercial paper capacity.

Pro Forma Consolidated Income Statement

\$Millions	2020 Forecast	2020 Budget	2021 Proposed
Operating Revenues:			
Sales to Customers	\$1,485.3	\$1,463.2	\$1,508.0
RSF & Other Deferrals	27.6	8.5	11.4
Other Electric Revenue	26.3	37.1	28.0
TOTAL OPERATING REVENUES	1,539.3	1,508.8	1,547.3
Operating Expenses:			
Commodities	456.2	474.2	440.9
Energy Delivery	82.9	109.2	96.7
Energy Operations	223.0	212.9	234.0
Customer/Community	130.6	141.4	139.4
Internal	41.4	15.2	16.4
Technology	31.6	40.4	35.2
Corporate	65.5	62.6	59.6
Enterprise	16.8	33.1	49.8
Public Good (including EAPR & MED Discount)	93.1	98.7	108.1
Total Operations	1,141.1	1,187.6	1,180.2
Depreciation, Depletion, and Amortization	208.8	207.6	220.4
TOTAL OPERATING EXPENSES	1,350.0	1,395.1	1,400.6
NET OPERATING INCOME	\$189.3	\$113.7	\$146.7

Note: The allocated portion of the Internal and Technology costs are included in each of the operating expense line items above and costs are allocated based on the quantity of labor hours. Some of the budget for Customer/Community and Energy Operations is included on other line items in the Pro Forma Consolidated Income Statement.

Pro Forma Consolidated Income Statement, cont'd

\$Millions	2020 Forecast	2020 Budget	2021 Proposed
Other (Income) Expenses:			
Interest Income and Other	(\$6.0)	(\$20.1)	(\$17.9)
Other Non Cash	(15.6)	(12.2)	(12.8)
TOTAL INTEREST INCOME & OTHER	(21.6)	(32.3)	(30.8)
Interest Expense:			
Interest expense	96.2	97.4	99.9
NET INTEREST CHARGES	96.2	97.4	99.9
CHANGE IN NET POSITION - NET INCOME (LOSS)	\$114.8	\$48.5	\$77.6
Interest Payments	106.4	110.9	114.8
Principal Payments	105.7	105.7	113.0
TOTAL FIXED COSTS	212.1	216.5	227.8
Cash Available to Pay Fixed Costs	438.4	365.3	409.8
FIXED CHARGE COVERAGE RATIO	2.07	1.69	1.80
RATE STABILIZATION FUND	34.0	41.0	34.0

Sales to Customers: The Sales to Customers budget is the revenue received from our residential and commercial electrical customers for power usage.

RSF & Other Deferrals: The Rate Stabilization Fund (RSF) & Other Deferrals budget includes revenues deferred to the rate stabilization fund.

Other Electric Revenue: The Other Electric Revenue budget is the revenue received from other services such as Community Energy Services (CCAs), LCFS revenues, steam sales, rental income and miscellaneous services revenues.

Commodities: The Commodities budget includes the long, medium and short-term power, electric transmission and natural gas purchases. The budget is shown net of surplus and wholesale power sales revenue, which represents revenues from the sale of generation and bulk power purchases which are surplus to our generation needs.

Energy Delivery: The Energy Delivery budget includes the costs of generating electricity, delivering it to our customers and maintaining the ability to do so safely and reliably. This consists of operating and maintaining SMUD's hydroelectric reservoirs and powerhouses, thermal and cogeneration power plants, gas pipeline, and renewable generation wind and solar resources. Also, the cost of electrical transmission, line inspections, corrective and preventative maintenance, vegetation management, and underground cable work are included here.

Energy Operations: The Energy Operations budget includes grid and distribution system planning and operations, procurement and administration of power and gas contracts, new business development, the 2040 Energy Plan and preparation of SMUD's distributed energy strategy.

Customer/Community: The Customer/Community budget includes all residential and commercial customer-focused services such as the Contact Center, retail client services, and sustainability solutions and the design and development of products and services. This line item also includes costs for billing, revenue assurance, communications and community relations, and economic development and partnerships. Lastly, this budget includes sustainable communities programs and support of the Community Energy Services (CCAs).

Internal: The Internal Services budget includes the costs of human resource services, facilities operations and maintenance, environmental and real estate services, SMUD's vehicle fleet operations, and enterprise procurement and warehouse services.

Technology: The Technology budget includes costs for the delivery and support of information technology systems, applications and hardware. Also included are the costs associated with maintaining and ensuring IT system availability, providing a framework to safeguard information, planning and setting the enterprise technology strategy, and supporting the enterprise's technology needs.

Corporate: The Corporate budget includes the costs associated with corporate governance such as executive management and internal audit, strategic and finance functions like accounting, treasury, risk management, financial planning, pricing, enterprise performance and load research and forecasting, and legal functions including legislative, regulatory, government affairs and corporate legal, as well as ensuring adherence to all industry reliability and compliance standards and requirements.

Enterprise: The Enterprise budget includes corporate contingency, claims, reserves, settlements and other company-wide special items. Also included is the cost of worker's compensation and other post-employment benefits.

Public Good: Public Goods programs include customer public good programs such as solar rebates and incentives, low income & medical rate subsidies and administration, emerging technologies, energy efficiency, and building electrification. It also includes energy operations public good programs such as EV charging, research and development, renewable initiatives such as biomass gasification, and distributed technology.

Depreciation, Depletion and Amortization: The depreciation, depletion and amortization budget is the depreciation of SMUD's electric utility plant-in-service and the Carson Cogeneration, Procter & Gamble Cogeneration, Campbell Soup Cogeneration and Cosumnes plants. The Budget amount is based on existing plant-in-service and estimated completion dates for construction work-in-progress, and the most current depreciation rates. It also includes amortization of costs associated with the new operating license for SMUD's Upper American River Project (UARP) hydroelectric generation facilities and Rancho Seco fuel decommissioning.

Interest Income and Other: The interest income and other budget is SMUD's interest income, based on the assumption that SMUD will earn an average of approximately 0.42 percent on unrestricted and restricted cash balances. This line also includes interest income on energy efficiency loans to customers, and any interest earned by CVFA, SCA, SPA, SFA, NCGA No. 1 and NCEA on their fund balances. Also included in this line is miscellaneous income.

Other Non-Cash: The other non-cash budget includes write-off of preliminary project costs, which is an estimate of costs to be written off related to projects which SMUD has deferred preliminary costs until feasibility or planning studies can be completed and final determination can be made on whether such projects will be developed. It also includes the corporate capital surcharge. Also included is Contribution in Aid of Construction (CIAC). This represents the recognition of money received for prior development costs and for grant projects for capital items. The receipt of funds being recognized on the income statement is made in order to match the money received with the depreciation. Additionally, advance capacity payments are included here, as well as Fuel Sales to SMUD from NCGA and NCEA and uncollectable accounts on loan and other billings, as well as some JPA allocations.

Interest Expense: The interest expense budget includes interest on long-term debt and commercial paper which reflects SMUD's obligation for existing debt, and interest expense on SFA, NCGA No. 1 and NCEA bonds.

Interest Payments: Represents the cash basis interest payments on SMUD, SFA, NCGA No.1 and NCEA bonds, commercial paper notes, and SMUD's share of TANC bonds, not including amortization of deferred bond issuance costs and gain/loss on bond refundings.

Principal Payments: Represents scheduled repayment of long-term debt.

Cash Available to Pay Fixed Costs: Represents the net cash flow before interest expense on a consolidated basis.

Fixed Charge Coverage Ratio: The fixed charge coverage ratio is a measure of the number of times net cash flow before interest expense on a consolidated basis covers total cash debt service payments, including both interest and principal, for SMUD, the JPAs and SMUD's share of TANC debt service.

Rate Stabilization Fund: This is a fund set up by the Board to provide a cushion against a rate increase in years where weather conditions or other non-controllable events cause large budget variances. No transfers in or out of the Rate Stabilization Funds are budgeted.

Unrestricted Cash: Cash available for operating and capital expenditures. Detail of change is shown on the Pro Forma Sources and Uses of Cash.

Restricted for Debt Service: Amounts deposited in restricted debt service funds as fixed by Bond Resolutions.

Decommissioning Fund: Amounts set aside with external trustee to cover estimated cost of decommissioning Rancho Seco. SMUD received a certification of completion of decommissioning from the Nuclear Regulatory Commission (NRC) in 2009. The remaining funds are for decommissioning of the spent fuel storage facility in 2028.

Business Forecast (continued)

Pro Forma Statement of Cash Flows

Operating Sources of Funds:	2021 Budget
Receipts from Customers	1,454
Other Electric Revenue	50
Total Operating Sources of Funds:	1,504
Operating Uses of Funds:	
Net Operating Expenses	689
Commodity Expenses	422
Total Operating Uses of Funds:	1,111
Net Source of Funds from Operations:	393
Financing Sources of Funds:	
Proceeds from Debt Issuance	0
Commercial Paper Issuance	100
Total Financing Sources of Funds:	100
Financing Uses of Funds:	
Capital Expenditures & Other Cash Payments	430
Net Loans	2
Principal Payments on Debt	109
Interest Payments on Debt	105
Total Financing Uses of Funds:	646
Net (Use) of Funds from Financing:	(546)
Investing Sources of Funds:	
Interest Income	6
Net Source of Funds from Investing:	6
Net Use of Funds from 2021 Budget	(147)
PROJECTED UNRESTRICTED CASH BALANCE @ 1/1/21	577
Net Cash Outflow from 2021 Budget	(247)
New Debt & Commercial Paper Issue	100
Net Change in Debt Service Reserve Funds	0
Transfer from Unrestricted to Restricted	9
PROJECTED UNRESTRICTED CASH BALANCE @ 12/31/21	439

The 2021 Pro Forma Cash Flow Statement shows the budgeted sources and uses of cash and the projected year-end unrestricted cash balance for 2021. SMUD's current practice is to maintain unrestricted cash and Rate Stabilization Fund balances at a minimum of 150 days cash on hand, or approximately \$453 million. At the end of 2021, SMUD's unrestricted cash balance is projected to be \$439 million, in addition to the Rate Stabilization Fund balance of \$34 million. The Hydro Rate Stabilization Fund balance, which is expected to be \$82 million, is not included in this target minimum.

SMUD generates positive net cash flow from operations because of net income and non-cash expenses such as depreciation and amortization. In 2021, cash generated from operations is estimated to total approximately \$393 million. The primary uses of this cash are capital investment, net loans to customers, and scheduled debt principal repayments and interest payments. The 2021 Budget for capital investment totals \$391 million. Scheduled debt principal repayments in 2021 total \$98 million for SMUD and \$11 million for the JPAs.