SMUD 2022 Proposed Budget





Powering forward. Together.

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November 5, 2021 GM 21-280

BOARD OF DIRECTORS

Re: 2022 SMUD Proposed Budget

Dear Board Members:

I'm pleased to submit SMUD's proposed 2022 Budget. It provides funding for operations and maintenance (O&M) and capital programs needed to successfully meet all the Board's Strategic Directions and deliver on our 2030 Clean Energy Vision in the coming year and ensures we'll continue to do so in the future.

Executive Summary

As a community-owned, not-for-profit utility, we look holistically at our budget, programs, projects, and initiatives each year to make sure we continue to deliver value to our customers and community in a way that maximizes benefits to all communities and the 1.5 million people we serve.

With the Board's leadership, we embarked on a bold journey in 2021 to remove all carbon emissions from our power supply by 2030, while maintaining our world class reliability and keeping any needed rate increases within the rate of inflation. As the Board knows, our carbon reduction goal is the most ambitious of any large utility in the nation. This budget proposal reflects our 2030 Clean Energy Vision and other changes since 2021 budget, including our organizational realignment. The realignment has allowed us to consolidate functions and increase organizational efficiency to free up funds that can support achieving our 2030 zero carbon goal, drive prioritization, harness innovation and sharpen our focus on diversity, equity, and inclusion.

Our 2022 proposed budget is ambitious, and funds far-reaching initiatives, which we've grouped into 5 themes: safety and reliability, affordability, organizational agility, environmental leadership, and community vitality, which you will see during staff presentations and in the budget documentation. Staff across the organization have been thoughtful in developing the 2022 Budget to ensure we continue to fund the activities that are critically important to support our customers and community while also funding activities that support SMUD's long-term success and leadership position. Included are our investments in accelerating our carbon reduction efforts, infrastructure investments, and initiatives to create a beneficial impact for our community by leveraging our strategic partnerships, such as our Sustainable Communities program, continuing to work with our low-income customers and support our commitment to embed Diversity, Equity & Inclusion (DE&I) in everything we do at SMUD. By partnering



with key community and customer partners, we continue to deliver on our track record of maximizing community impact, by ensuring every dollar we spend delivers the most value possible.

The proposed 2022 Budget Authorization request is **\$1.7 billion**, which is **\$9 million** lower than the 2021 Budget, primarily due to lower capital expenditures.

We know combatting climate change is one of the most pressing imperatives facing mankind and we're investing in delivering on our Zero Carbon Plan. Our O&M budget (line c in the table below) is increasing by \$28 million while our Public Good budget (line b) is decreasing slightly, by \$4.5 million, as we reallocate funds from a placeholder in the 2021 budget to specific programs in the 2022 budget. Key initiatives included in our 2022 O&M budget include electric transportation incentives, building electrification programs and other carbon reducing efforts. As the Board knows, electrification is a critical part of our zero carbon future, and an important part of our strategy to continue to be a leader in the region's transformation to a Clean PowerCitySM for all of our customers. We're continuing to make investments for our low-income customers and under-resourced communities so that all customers benefit from our carbon reduction efforts. The budget funds customer outreach and education for these efforts. The O&M budget also includes increased funding for vegetation management, wildfire mitigation actions, cyber security and property and casualty insurance. While staff works diligently to minimize budget impacts from these items, many increases are outside of our control.

Capital (line d) is decreasing by \$31 million. Major capital projects for 2022 include continuing to build Station G, expanding the Solano Wind Farm and ongoing work at Union Valley in support of our 50-year hydro license. The 2022 Budget includes funding for new and continuing technology projects, such as the Advanced Distribution Management System (ADMS) and Distributed Energy Resource Management Systems (DERMS) to provide increased visibility and management of distributed energy resources, Workforce Optimization to maximize the field crews scheduling and work efficiency and Talent Technology Transformation (T3) to manage hiring, onboarding and talent management processes holistically through a single technology platform.

The 2022 Budget authorizes 2,210 full-time positions and funding for 39 limited-term positions. There is no change to our overall staffing level from last year's budget despite the many new initiatives to achieve our ambitious new carbon reduction goal. This is a reflection of our success in creating efficiencies within the organization due to the realignment. The budget includes funding for our future workforce pipeline needs with student positions.

We expect a slight increase in our customer count and kWh sales of electricity in 2022. Our commodity budget (line a) remains flat as the various components in our portfolio are changing – we are realizing the savings of a higher priced commodity contract ending, coupled with higher power, natural gas and resource adequacy prices. We recognize the potential for new growth related to building electrification, electric vehicle adoption and mixed-use commercial/residential sales growth, and have maintained conservative planning assumptions so we can act nimbly as business conditions change. To manage potential impacts on our budget and operations, we'll monitor these and other factors throughout the year, including the local economy, construction costs and any supply chain and labor shortages.

Budget breakdown

Here is a brief overview of the proposed 2022 Budget compared to the 2021 Budget, dollars in millions (\$M):

	2021 (\$M)	2022 (\$M)	Change (\$M)
Commodity (a)	\$440.9	\$440.7	(\$0.2)
Public Goods excluding subsidies (b)	68.1	63.6	(4.5)
Other O&M (c)	631.2	659.6	28.4
Subtotal	\$1,140.2	\$1,163.9	\$23.7
Debt Service	213.7	212.2	(1.6)
Capital (d)	390.9	359.9	(31.0)
Total Budget Authorization	\$1,744.8	\$1,735.9	(\$8.9)

Totals may reflect minor rounding differences.

The total public good budget includes an additional \$35 million for rate subsidies that are not included in the Budget Authorization because the Board previously approved these as a component of the rate tariff.

Additional Budget details

The following sections provide details on the major initiatives and programs funded in the 2022 Budget, grouped by the Board's Strategic Directions (SD).

Competitive Rates (SD-2)

The 2022 Budget reflects the first year of our recently approved rate increases that the Board adopted in September 2021. Commodity costs make up a good portion of our total O&M budget. Staff has locked in prices for most of our expected energy requirements for 2022 to ensure cost and rate stability for customers. Only a small portion of budgeted energy purchases are exposed to short-term market price fluctuations – a beneficial practice, especially during the price volatility currently reflected in California power and energy prices.

We'll enter 2022 with approximately \$56 million in the Hydro Rate Stabilization Fund (HRSF) and \$69 million in the Rate Stabilization Fund (RSF), net of Low Carbon Fuel Standard (LCFS) and Cap and Trade (AB32) funds. These reserve funds help us

absorb higher energy costs when hydroelectric production is down and serve as a buffer against unexpected financial developments.

In 2022, we'll implement the Board-approved Solar and Storage rate and an optional Critical Peak Pricing rate, plus we'll be looking to pilot and test more new optional rates.

We know our customers expect us to keep our rates low while continuing to deliver safe, reliable, and environmentally responsible power and the products and services they value. Operational Excellence has a renewed focus across SMUD in 2022 and beyond to free up funds to support our carbon reduction goals and other strategic initiatives. The formal Operational Excellence program, created in 2021, supports the 2030 Clean Energy Vision by developing and managing a consistent framework to reduce costs, increase efficiency and drive a culture of continuous improvement.

We will continue to implement the consolidated functions identified with the 2021 organizational realignment such as project management and planning functions to create higher value and benefits at a lower cost. We will also continue to explore external funding opportunities through grants and partnerships to support 2030 Zero Carbon Plan objectives.

Access to Credit Markets (SD-3)

We proactively manage our strong financial position to maintain high credit ratings. These strong credit ratings improve access to credit markets and result in a lower cost of borrowing – an especially important financial benefit as we look to fund our ambitious zero carbon future.

We target strong financial metrics in cash flow coverage (fixed charge) and liquidity (days cash). The Board sets a minimum fixed charge of 1.50 times operating cash flow; however, we aim for a minimum of 1.70 as a standard. This higher performance standard has proven valuable during the last two years' economic uncertainty stemming from the pandemic. Our current 2022 forecast plans for a fixed charge coverage of 1.93 times.

We maintain a strong liquidity position by setting a minimum number of days cash on hand and managing a \$400 million commercial paper program. The commercial paper program allows for short-term borrowing when needed in lieu of issuing long-term debt, similar to a credit card or line of credit. A strong liquidity position is important in demonstrating to investors and rating agencies that SMUD can withstand various financial stresses. Our current days cash threshold is 150 days — the minimum amount of cash on hand before triggering a new debt or commercial paper issuance to replenish cash balances. Additionally, the unused commercial paper capacity further enhances our liquidity position as interpreted by investors and ratings agencies.

Reliability (SD-4)

Power reliability for our customers remains a top priority. The 2022 budget includes the necessary funding to ensure our transmission and distribution (T&D) systems have sufficient capacity and load serving capability to safely, reliably and cost effectively serve the needs of our customers while meeting regulatory compliance requirements. The budget was developed through a risk-based approach and the careful balance between capital investments and O&M work.

The 2022 budget continues to fund implementation of our Wildfire Mitigation Plan and infrastructure replacement plans such as cable replacement, pole replacement and T&D substation assets replacement. It also includes work to complete the upgrade of one of our 230kV transmission lines to increase the load serving capability of our transmission grid. In addition, the budget includes projects to expand or upgrade sections of our distribution system to serve continued load growth in downtown Sacramento and the Railyards. Outside of downtown Sacramento, there are projects planned to serve continued residential and commercial development growth in existing and new communities such as the Sunrise-Douglas area, Rio Del Oro and Cordova Hills in Rancho Cordova; Russell Ranch, Folsom Ranch and Mangini in Folsom; East Elk Grove, Laguna Ridge and Southeast Policy area in Elk Grove; Metro Airpark and the California Northstate University Medical Center to be located at the former Sleep Train Arena site.

Key reliability investments in the 2022 Budget include:

- Grid substation improvements and new capacity Building a large substation is a multi-year effort, and the important work to build Station G substation continues in the 2022 budget. Most of the electrical equipment will be received and commissioned on the site in 2022. Electrical construction will be completed in fall 2022 and cutover of 12 kV networks from Station A to Station G will begin in fall 2022 and finish before summer 2023. Engineering design work for Station H will continue, and the material procurement process will be initiated. Station A will be decommissioned once Station G is fully operational. We'll continue our multi-year replacement plan for T&D substation assets, which includes circuit breakers, transformers, and switchgears. Construction for reconfiguration of the Hurley substation 230 kV bus to improve reliability will begin in summer 2022 and continue over the next 2 years in phases due to the complexity of the project. In 2022, we will also construct 1 new distribution substation, Oselet-Baroque, and add 1 more transformer to Del Paso East Commerce distribution substation.
- Vegetation management & wildfire mitigation In 2022, we plan to trim about 104,000 trees as part of our routine distribution tree trimming efforts. We'll continue to remove vegetation that could grow or fall within unsafe distances to the transmission lines and reduce fuels minimizing the potential effects of a wildfire. Our budget includes \$9 million for targeted vegetation management risk reduction work in the Upper America River Project (UARP). We'll also complete

phase 2 of the 4kV line undergrounding effort in Bush Creek Reservoir, which will eliminate the last remaining 4kV overhead/wood construction line in the UARP.

- Protecting the reliability of our existing Power Generation facilities As we shift our focus to zero carbon resources, we're committed to protecting the reliable operation of SMUD's existing generation fleet. To that end, we're planning to complete several important major maintenance tasks in 2022, including inspections and overhauls to keep emissions as low as possible.
- Pole and cable replacements In 2022, we plan to replace 1,200 poles and are targeting to replace 240,000 circuit feet of underground cable. The Pole Replacement Program includes replacing poles that have failed a pole inspection and are not candidates for pole reinforcement. For cable replacements, we prioritize addressing the worst performing cable first, which will decrease future outages, repair costs, customer complaints and reduce the number of the worst performing circuits. Customer driven work (new business) for 2022 is budgeted at current 2021 levels. If customer driven work decreases in 2022, we will increase the number of poles and underground cable targets accordingly, as this is annual ongoing work.

Customer Relations (SD-5), Outreach & Communication (SD-15)

2022 will be a significant year for SMUD and our customers as we plan for emerging from the COVID-19 pandemic, with a return to more in-person outreach and events as well as normal billing operations. With our sights on zero carbon by 2030, we're focused on outreach, communication and engagement that helps bring all our customers and communities along as partners in this important mission.

Supporting our customers and community partners by keeping the lights on, supporting economic development and securing the customer experience while delivering on the goals of the 2030 Zero Carbon Plan continue to be priorities for SMUD.

In 2022 we'll restart collections activities for unpaid bills using a personalized approach that uses advanced analytics to help us identify and support customers who need the most significant and immediate aid. We will also continue to seek out other funding options, as they may become available.

In support of our work to deliver value to our customers and community, key investments in the 2022 Budget include:

• Establish multi-year partnerships with local non-profits to equitably provide resource support to our underserved communities as part of our Sustainable Communities Initiative.

- Implementing the 2021 Rate Action process deliverables that were approved by the Board in September 2021 and providing customers with tools and information to help manage their energy usage.
- Continuing our Energy Assistance Program Rate (EAPR) support by providing our customers most in need with home weatherization, energy efficiency and electrification to reduce their electric bill burden.
- Capitalizing on the SMUD brand to increase our customer population and its sustainable revenue future by helping recruit businesses to the Sacramento area, thus bringing more jobs, opportunities, development, and economic vitality.
- Balancing SMUD's priorities and maintaining pace with changing customer expectations in these uncertain times aligned with Customer Satisfaction and Value for What you Pay (VFP) metric targets.
- Providing updated and enhanced mapping on the Sustainable Communities Resource Priorities Map to address environmental justice, climate change and equity related to impacts on SMUD customers and activities.
- Continuing communication, outreach and education related to our 2030 Clean Energy Vision, including:
 - Delivering a new phase of our integrated Clean PowerCitySM campaign to increase awareness and customer participation. Key focus areas include building and vehicle electrification and distributed energy resources.
 - Enhancing ongoing market research to understand customers' awareness and perceptions for multiple demographics.
 - Building interactive experiences on smud.org to grow awareness and understanding.
 - Continuing community forums and listening sessions to understand various customer segments more deeply.
- Enhancing the digital user experience by:
 - Continuing to test and expand marketing efforts into streaming media, including Over-The-Top (OTT) television like Hulu and streaming audio like Pandora.
 - Planning personalization in customers' digital experiences and preferences to increase participation in decarbonization.
 - Building awareness of and engagement around SMUD's 2030 Clean Energy Vision and other key priorities through channel-specific social media strategies, with a focus on building SMUD's TikTok presence and engagement.

- Reestablishing our presence in the community by returning to community events as safely allows, such as:
 - The State Fair, the California Capital Air Show and home and garden shows.
 - Planning additional nonprofit events in 2022 as COVID-19 hopefully subsides.
 - Returning to large-scale volunteer projects through our SMUD Cares volunteerism efforts.
- Maintaining our focus on our partnerships:
 - Continue to leverage flagship partnerships such as our support for the SMUD Museum of Science & Curiosity.
 - Expand opportunities and support material as part of our 2030 Clean Energy Vision outreach, including increased use of our speaker's bureau at external meetings and events.
- Completing customer research studies and delivering data and analysis to inform program development and enhancements. Key projects include annual EAPR customer satisfaction research and monitoring customers' electric vehicle experiences. These studies also help us continue to enhance SMUD's brand and drive improvements in customer perception of and their experiences with SMUD.

Safety (SD-6)

SMUD continues to execute our plan to be a recognized leader in safety. In 2022, we'll implement our 3-year Safety Road Map and Safety Management System (SMS) that fosters SMUD's safety culture and leadership and furthers our journey toward our organizational goal of zero incident and injuries.

Key safety investments in the 2022 Budget include:

- Continuing to support COVID-19 and re-entry efforts in 2022. Priorities for 2022 include regulatory tracking, exposure guidance, personal protective equipment usage, contact tracing, ergonomic support for remote workers, COVID-19 safety protocols for contractors, re-entry training and review/safety consultation for the re-introduction of SMUD staff into SMUD facilities and participation in public events/activities.
- Training and use of the new Safety Management System (SMS) software for our inspection tool, risk assessment and compliance calendar modules. In addition, Safety will have new dashboard capabilities to collect data analytics for these programs as well as implementing new concern reporting, safety observations and ergonomic modules that are rolling out in late 2021 and early 2022.
- Expanding SMUD's pilot field ergonomics injury prevention program. This program provides biomechanical instruction to improve an employee's core body

strength and posture, corrective exercises to support joint mobility, muscle flexibility and balance, recovery techniques for muscle inflammation and injury prevention instruction for field activities.

- Using the new SMS for Safely Conducted Observations Reduce Common Hazards (SCORCH) field observations to provide SCORCH observers with the ability to use tablets and phones in the field to conduct and track observations. In addition, SCORCH will continue to focus on safety observations and removal of safety barriers for remote and on-site workers.
- Continuing to implement our contractor safety pre-qualification program to increase the review of high-risk project contracts.
- Re-evaluate SMUD's Public Safety program that includes: expanding Emergency Responder and Public Safety Electrical training; evaluation of school public safety publications; evaluation of public contractor safety outreach; drone safety and updating Electromagnetic Fields and Radio Frequency (EMF/RF) educational publication updates.

Environmental Leadership (SD-7)

SMUD is recognized as an environmental leader within our industry and beyond. Our commitment to the environment is evident in the power we deliver to our customers, our community involvement, the materials we buy and the decisions we make each day. We're always looking to reduce our impact on the environment, conserve resources and improve the environment for current and future generations. These efforts benefit our employees, customers and most of all, our community.

Key environmental leadership investments in the 2022 Budget include:

- Performing annual reporting of SMUD's greenhouse gas (GHG) reductions using the CDP (formerly known as the Carbon Disclosure Project). The CDP is a not-for-profit organization that runs the global disclosure system to measure and report on company environmental impacts related to GHG emissions.
- Submitting the Habitat Conservation Plan (HCP) to U.S. Fish & Wildlife by the end of 2022 for permit issuance in 2023.
- Working with U.S. Fish & Wildlife to develop a 30-year Eagle Take Permit. We'll continue to initiate agreed-upon mitigation measures to retrofit utility poles at Solano Wind Farm to be avian safe, while evaluating new sensor technologies to reduce avian impacts. We currently have a 5-year permit and will be working to finalize the 30-year permit with these enhancements.
- Supporting soil remediation efforts at our 59th Street facility to remove solvents in soil and groundwater remediation efforts at the former Community Linen site (FCL). The 59th Street project will include the demolition of 2 buildings and

removal of contaminated soil. In addition, SMUD will initiate treatment of groundwater in mid-2022 at FCL.

- Continuing to support recreational improvements such as the construction of the Union Valley Bike Trail from Wench Creek to Yellow Jacket campgrounds. Also, reconstructing campsites at Yellow Jacket and West Point campgrounds along with boat ramp construction at these sites. This work is part of the construction and upgrade of recreational facilities for our UARP Operating License implementation requirements.
- Enhancing to our fleet by increasing the number of electric vehicles to upwards of 18% of our total fleet. SMUD's goal is to make 50% of all light-duty vehicle miles driven be zero emissions and all electric by 2025.
- Initiating construction of a landfill cap for SMUD's North City substation property. We're working with Sacramento City and County, along with CalRecycle to coordinate the design and eventual construction of a cap once the existing substation is decommissioned. Work includes an engineering design for the cap and a stormwater retention basin that can be used jointly by SMUD and the City of Sacramento.
- Continuing to enhance our procurement process to support a best practice approach to sustainable purchasing. To assist in this effort, SMUD is a member of the Electrical Utility Industry Sustainable Supply Chain Alliance, where we can work jointly with other utilities in the sharing of sustainable purchasing best practices.
- Integrating Environmental Justice components into SMUD's California Environmental Quality Act (CEQA) documents. The Environmental Justice chapter in our CEQA documents will describe the relevant socioeconomic characteristics and current environmental burdens of the project while evaluating enhancements to lessen the negative environmental impacts caused by the project.

Employee Relations (SD-8)

Investments in talent and culture will be critical to SMUD's ability to deliver on the 2030 Clean Energy Vision. We'll advance our talent acquisition strategy, particularly those impacting critical roles and skills. Additionally, we'll invest in equitable workforce strategies, so that SMUD can continue to reflect the diverse community we serve and build a culture of high trust, inclusion and belonging.

Key employee relations investments in the 2022 Budget include:

- More deeply embedding Diversity, Equity & Inclusion (DE&I) in all we do, with a focus on strategy, policy and education, specifically:
 - Establishing a DE&I road map with milestones, monitoring and reporting.

- Launching our employee Diversity, Equity, Inclusion and Belonging advisory council.
- Training our workforce on concepts and values of Diversity, Equity, Inclusion and Belonging.
- Continuing to address risks to workforce agility through our succession planning and strategic workforce planning programs. In 2022, our strategic workforce planning emphasis will be on reviewing critical roles considering our 2030 Clean Energy Vision and bringing a DE&I lens to review and revise our succession planning program, so it supports our efforts to increase our workforce diversity.
- Opening a child development center in partnership with CSU, Sacramento and UC Davis Health to help attract and retain the region's top talent, as well as address the need for quality childcare in Sacramento.
- Implementing successor Memorandums of Understanding (MOUs) for the International Brotherhood of Electrical Workers (IBEW) and the Organization of SMUD Employees (OSE) that are effective January 1, 2022, including providing education to SMUD leaders over the impacted employees regarding negotiated changes. We'll negotiate a new MOU for the SMUD Public Safety Officer's Association (PSOA) bargaining unit before the current labor contract expires on December 31, 2022.
- Launching the Talent Technology Transformation (T3) project, which will enhance applicant and employee experience, improve our human resources technology ecosystem and enhance data-driven decision making for SMUD's people processes and policies.
- Evaluating Total Rewards benefits offerings including exploring additional adaptive benefits that meet the needs of SMUD's diverse workforce.
- Implementing the Powering Careers program, which is focused on building a pipeline for underrepresented communities to enter skilled trades at SMUD and other industry partners in our region.
- Continuing to refine and enhance communications with employees based on reader and viewer data to drive understanding of and engagement in key SMUD efforts and activities.

Resource Planning (SD-9)

In March 2021, the Board adopted the 2030 Zero Carbon Plan, our flexible road map to achieving our zero carbon goal while ensuring all customers and communities we serve share in the benefits of decarbonization. While SMUD has always had an Integrated Resource Plan target to meet or exceed goals established by the State for renewable energy and the reduction of carbon emissions, our 2030 Zero Carbon Plan greatly

accelerates these efforts, working toward eliminating carbon emissions from our power supply by 2030.

We're focused on reimagining our generation portfolio through retiring or retooling our natural gas assets, expanding our local investments in proven clean technologies, and launching pilot projects and programs for new and emerging technologies, all while continuing our work to improve equity for our under-resourced communities and minimizing the cost of implementing our 2030 Zero Carbon Plan. The projects planned in 2022 are foundational to the decarbonization of our grid and achieving our zero carbon goal. These include planning, developing, and implementing renewable projects and customer offerings, including building and vehicle electrification and energy efficiency programs, renewable energy, and reliability projects. We're also preparing the distribution system for the future by beginning implementation of our Integrated Distributed Resource Plan (IDRP) and continuing our grid modernization work.

Equity and inclusion are a major focus of our decarbonization efforts. We're working to engage members of our diverse communities to deliver wide-reaching benefits, including expanded workforce development program offerings to support clean technologies. The 2 natural gas plants we're planning to retire are located in local disadvantaged/under-resourced communities and by focusing our efforts on retiring these 2 plants and adding new local renewable projects, we're providing a direct reduction of local natural gas generation and emissions in communities that are impacted the most.

Key resource planning investments in the 2022 Budget include:

- Expanding renewables and increasing reliability:
 - Continuing evaluation and development of several local utility-scale solar and battery storage projects, with targeted online dates in 2024.
 - Expecting new 100 MW solar project with the Navajo Tribal Utility Authority in Southern California to come online in 2022.
- Continuing to evaluate additional proven clean technology options, such as concentrating solar power, wind, geothermal and long-duration energy storage options; continuing to study the local reliability needs along our path to 2030 Zero Carbon and continuing to explore new technologies such as the Allam-Fetvedt Cycle carbon capture technology and expanding our understanding of clean fuels that could be viable alternatives as we transition away from natural gas.
- Continuing work with local and state government to guide building codes to encourage building electrification.
- Completing work on grid modernization efforts including the Automated Distribution Management System (ADMS) and continuing work on the Distributed Energy Resource Management System (DERMS), which lay the foundation for

integration of Distributed Energy Resources (DERs) such as distributed solar and energy storage, flexible demand, and electric vehicles.

- Beginning a planning effort to evaluate how medium- and heavy-duty electric vehicle (EV) fleets and charging infrastructure are expected to impact our distribution grid, and what opportunities there may be to mitigate those impacts.
- Launching a new program, SMUD eFuelSM aimed at advancing commercial transportation electrification. The program will provide businesses with no-cost consultations on converting to EVs. SMUD will also install EV chargers and infrastructure for eligible customers for no- or low-money down in exchange for a monthly fee on their SMUD bill.
- Launching new Virtual Power Plant programs and the optional Critical Peak Pricing rate providing needed load flexibility in support of our 2030 Zero Carbon Plan.
- Incorporating equity components into SMUD's building energy efficiency and electrification programs and into our transportation electrification offerings for under-resourced communities and EAPR customers.
- Expanding and refining our building electrification programs with an increase in gas to electric conversions across all sectors, including:
 - Launching a newly evolved Smart Homes program to an all-electric only offering, along with greater integration with load management products.
 - Launching an Express Water Heating service within the Advanced Homes program.
- Expediting utility service planning to support the launch of the Power Inn Station RT Charging Plaza, which incorporates solar, energy storage and vehicle charging for public and fleet vehicles.

Innovation (SD-10)

Delivering innovative solutions, products, and services to our customers through research and development and implementing new business models continues to be a core value for SMUD. In 2022, we'll embark on an innovation culture and mindset shift along with aligning innovation activities through the Technology & Innovation business unit. This focus ensures innovative ideas align with enterprise priorities and operational excellence guidelines. We're also focusing our investments on emerging technology innovations for 2022 that directly align with our 2030 Zero Carbon Plan. Key innovation investments in the 2022 Budget include:

• Accelerating research in building and transportation load flexibility to allow for the transition of SMUD's thermal fleet by 2030, increasing integration of intermittent renewable resources and mitigating grid and customer infrastructure impacts of electrification, such as:

- Researching the ability to orchestrate diverse residential customer-sited devices to deliver load flexibility as a reliable resource.
- Collaborating with a consortium of vehicle manufacturers to test the impact and reliability of a residential-managed charging program to protect service transformers and soak up solar generation to reduce curtailment risks.
- Furthering vehicle-to-grid readiness for school bus electrification by expanding participation opportunities to additional school districts to develop and test charging infrastructure's ability to enable a 2-way power flow.
- Researching and addressing key barriers to building and transportation electrification, including:
 - Quantifying and forecasting customer adoption of building and transportation electrification and developing a plan for delivering needed upgrades to grid infrastructure and mitigation measures to accelerate sector growth.
 - Partnering with regional agencies to create a regional zero emission vehicle deployment strategy to address the needs of under-resourced communities and to capture funding support from federal and state agencies.
 - Assessing our first eMobility hub with EV charging and expanding our support of hubs within disadvantaged communities.
 - Continuing California Mobility Center client services by deploying 5 medium-duty electric trucks built and customized by Zeus Electric Chassis into SMUD's fleet.
- Investigating options to increase the efficiency and precision of grid monitoring and control capabilities by:
 - Evaluating the use of dynamic transmission line ratings to inform shortterm operational and long-term planning decisions.
 - Testing advanced functionality of smart inverters to increase customer hosting capacity and reliability of solar and storage resources.
- Building on efforts launched in 2021, the Innovation Team will proliferate the innovation effort bringing it to all corners of SMUD using the IDEAHub portal for employees to submit innovative ideas.
- Researching the potential to create natural habitats through pollinators and planting native species to sequester carbon and advance our efforts in responsible power generation land development.

Public Power Business Model (SD-11)

We'll continue to guard local decision making and flexibility as we pursue innovative solutions that meet the needs of our customers and community.

Key areas of focus in the2022 Budget include:

- Post-2020 carbon state and federal policies and regulations.
- Transportation and building electrification frameworks.
- Oversight of wildfire mitigation plans.
- Legislative and regulatory mandates.
- Load Management Standards.
- Federal policies on transmission.
- Energy markets.

Economic Development (SD-13)

SMUD promotes the economic vitality of our region and the growth of our customer base through strategic leadership and active participation in regional economic development partnerships. This includes supporting efforts to retain, recruit and grow commercial and industrial customers, offering Economic Development Rates and program incentives and providing a SMUD contracting program for certified small business customers. We're also helping build a strong innovation ecosystem through support for start-ups, entrepreneurs and business incubators, with a key focus on encouraging economic growth in disadvantaged neighborhoods. We also provide enhanced resources to key chambers of commerce to support their work with our commercial customers.

SMUD helps make our region an attractive destination for businesses of all sizes through affordable rates and customized energy solutions.

Key economic development investments in the 2022 Budget include:

- Building awareness and adoption of the 2030 Zero Carbon Plan among key business partners.
- Maximizing and diversifying participation in the Supplier Education and Economic Development (SEED) program by leveraging key partnerships and identifying opportunities to expand outreach and engage under-resourced communities.

- Utilizing our Community Resource Liaisons, formerly called the Loaned Executive Program, in support of chamber partners and initiatives that provide innovative support and strengthen our business communities.
- Improve support to small businesses in under-resourced communities to help them adopt zero carbon practices and innovate, to spur inclusive economic development.

System Enhancement (SD-14)

The 2022 Budget includes 2 key system enhancement projects. The first project involves underground placement of our facilities as part of the City of Elk Grove's Streetscape Project at Elk Grove Boulevard from Waterman Road to School Street. The second project is completing detailed design of the City of Citrus Heights' Auburn Blvd. Project (from Rusch Park to Interstate 80).

Information Management and Security (SD-16)

Technology plays a critical role in the collaboration across SMUD to institutionalize robust information management and physical security practices, which are critical to effective risk management, and to ensure regulatory compliance, business resiliency and customer satisfaction. Multiple SMUD teams working together are critical for SMUD to take prudent and reasonable measures to accomplish the objectives of SD-16. Cybersecurity's mission is to work closely across SMUD to help manage risk by strategic alignment of policies and processes across cybersecurity, physical security, customer privacy and records management. The 2022 budget funds solutions and strategies to implement effective and efficient measures to manage information risk to SMUD's people, processes, and technology.

Key information management and security investments in the 2022 Budget include:

- Publishing and enforcing cybersecurity policies, procedures and standards aligned to the National Institute of Standards and Technology (NIST) Cybersecurity Framework Security and Privacy Control families. This effort builds on 2021's successful system integration of new technology solutions that enabled continued maturation of our cybersecurity governance, risk and compliance programs. This continual process ensures we are implementing effective policy to protect our information confidentiality, integrity, and availability.
- Continuing to mature cybersecurity technical and programmatic efforts to be integrated within critical business technology and processes to ensure cybersecurity and privacy are incorporated early to avoid risk to cost, schedule and performance of SMUD's operational business requirements. This includes improvements in Cyber and Privacy governance, CIP compliance, Information Technology and Operational Technology Risk Assessments, Cloud and

Applications Security, Supply Chain Risk Management, Physical Security and Awareness Training for employees who have privileged access to our information and technology.

- Extending 2021's Critical Infrastructure Protection (CIP) vendor risk assessments to the enterprise, further strengthening SMUD's overall risk posture.
- Preparing for and participating in the North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) compliance Audit conducted by the Western Energy Coordinating Council (WECC). This effort builds on the successful completion of the CIP Mock Audit in 2021.

Enterprise Risk Management (SD-17)

The 2022 Budget fully funds key risk mitigation activities. SMUD's enterprise-level risks span the spectrum of operational and strategic business risks and include those associated with energy procurement, strategy, operations, natural hazards, political and regulatory issues, economics, and the environment. Risk assessments and mitigation plans continue to be refined and improved by considering SMUD's changing internal and external risk environment and enhancing how SMUD addresses its risks. Mitigation activities for high and significantly high risks identified in the enterprise risk register will continue to be monitored closely to ensure these risks are adequately managed.

Some key enterprise risk management initiatives in the 2022 Budget include:

- Continuing to mitigate wildfire risk and potential impacts to SMUD's operations, customers and the community.
- Enhancing and improving SMUD's emergency preparedness and response capabilities leveraging lessons learned from our response to the COVID-19 pandemic and the Caldor Fire.
- Supporting and informing the new Enterprise Strategy business unit with enterprise risk management assessment and information.

Enterprise Risk Management will continue to align with Internal Audit and other lines of defense through shared best risk management practices.

Diversified Business (SD-19)

Broadening and diversifying our products and services is a key value for SMUD. In 2022, we'll pursue opportunities that benefit our customers and community, create economic value, achieve a balanced and diversified portfolio and leverage and optimize our strengths, assets and expertise, all while maintaining our financial health and reputation.

Key diversified business investments in the 2022 Budget include:

- Continuing to collaborate and support the California Mobility Center (CMC), a
 private/public consortium focused on innovation and commercialization,
 standards and policy, workforce development and new business models in
 electric mobility. In 2022, we'll work with the CMC and its growing list of electric
 mobility start-ups to reduce barriers to EV adoption, support our vehicle
 electrification goals and reduce local carbon emissions.
- Continuing work on our Community Energy Services business for Valley Clean Energy and East Bay Community Energy.
- Continuing to identify, structure and implement new strategic partnerships for SMUD that are aligned with the 2030 Clean Energy Vision and that generate new sources of revenue.

In closing, 2022 will build on the foundation and momentum that was established in 2021 with the approval of the 2030 Zero Carbon Plan and adoption of new customer rates and optional programs, such as the solar and storage rate and incentives and virtual power plant program. Over the next 8 years on our journey to zero carbon by 2030, we'll lead the nation toward a transformational and inclusive clean energy future, starting right here with our own customers and community. Our holistic approach to developing the 2022 Budget and road ahead toward zero carbon is centered around bringing more value to all of our customers and community while keeping our rates low and continuing to provide world class reliability. The 2022 Budget is designed to deliver on the Board's Strategic Directions while also achieving strong financial metrics that ensures our strong foundation.

Our executive team members will share an overview of their key 2022 initiatives during the November 9 and 10 Finance & Audit Committee meetings and I look forward to providing the Board with regular updates on progress throughout the upcoming year.

Respectfully submitted,

Paul Lau Chief Executive Officer and General Manager

cc: Executive Team Special Assistant to the Board Corporate Files

2022 Budget Budget Resolution

Powering forward. Together.





RESOLUTION NO. _____

WHEREAS, the proposed 2022 Budget is expected to result in a

positive net income for 2022; NOW THEREFORE,

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF SACRAMENTO MUNICIPAL UTILITY DISTRICT:

Section 1. This resolution may be referred to as the 2022 Budget

Resolution.

Section 2. (a) There is hereby appropriated from the General

Fund sufficient monies for the payment of demands against SMUD which relate

to obligations incurred for the purposes and within the amount specified for such

purposes in the following projection of SMUD's program for the period January 1,

2022, through December 31, 2022.

Operations and maintenance:

Commodity - purchased po wheeling	wer, fuel, and \$440,680,590	
Public Goods	63,584,820	
Customer, energy delivery, internal service, technolog services and Rancho Seco	y, corporate	
Sub-To	tal \$1,163,842,080	
Debt Service Capital and reserve	212,158,020 359,911,078	
TOTAL	\$1,735,911,178	
(b) The Commodity line item budget is based on		

assumptions of average rainfall and temperatures during 2022. SMUD has in



place a Hydro Generation Adjustment (HGA) mechanism whereby, based on the actual rainfall amounts between April 1, 2021 and March 31, 2022 in comparison to the budget assumptions, SMUD may transfer funds to or from the Hydro Rate Stabilization Fund and, once pre-established limits are met, increase or decrease customer rates. The Commodity line item budget will be increased or reduced based on the actual transfer and/or change in customer revenues from the HGA adjustment.

(c) SMUD also has in place or may enter into additional agreements under which monies will be received by SMUD in the event actual weather conditions are drier than average. In the event of below average rainfall, the Commodity line item budget will be increased by an amount equal to the payments received under these contracts.

(d) SMUD has budgeted to receive 661 gigawatt hours of energy in 2022 under its contract with the Western Area Power Administration (WAPA). This energy primarily is generated at Central Valley Project hydroelectric plants, and the actual quantity of energy received will be dependent on rainfall, carryover water storage and operation of the WAPA system to meet contractual water deliveries. Because WAPA generation facilities are spread over a wide area, insurance is not practical for offsetting variations of energy deliveries due to weather. One purpose of the Rate Stabilization Fund is to mitigate such variations. The Accountant is hereby authorized to transfer funds as follows based on actual WAPA energy deliveries in the 2022 season: for every megawatt hour below 661,000 transfer NP15 EZ Gen Hub (NP15)

Draft

power price per MWh from the Fund, up to a maximum of \$30 million; for every megawatt hour over 661,000 transfer the NP15 power price per MWh into the Fund, up to a maximum of \$30 million. The Commodity line item budget will be increased or reduced accordingly. The NP15 power price for the transfers is the weighted average of actual NP15 power prices based on when the energy from WAPA is received by SMUD on an hourly basis.

(e) Budgeted energy purchases necessary to meet customer energy sales requirements (10,166 GWh) are based on average weather conditions and expected customer growth in 2022. Should actual weather conditions or growth levels cause SMUD retail sales and related energy requirements to be higher, the Commodity line item budget will be increased by the NP15 power price per megawatt-hour of additional retail energy sales to offset the cost of these sales.

(f) SMUD participates in regulatory programs such as Low Carbon Fuel Standard (LCFS) and Cap-and-Trade. Under these programs, SMUD has the option to monetize the credits and allowances applicable to these programs through sales transactions. When SMUD collects revenues through these sales, it is required to apply the proceeds toward specific expenses that support the program goals. An additional purpose of the Rate Stabilization Fund is to mitigate fluctuations from regulatory programs. The Accountant is hereby authorized to transfer funds to or from the Rate Stabilization Fund to match LCFS and Cap-and-Trade revenues with expenses. The budgeted amount will be increased or decreased accordingly.

Draft

(g) For purposes of Section 11891.6 of the Municipal

Utility District Act, there shall be deemed added to each line item, in section 2a, a 10 percent contingency. Demands against SMUD which relate to obligations incurred for each line item and are within such line item amount plus the 10 percent contingency may be paid without prior specific approval of this Board, provided the total of such payments during 2022 may not exceed the total budget amount plus this 10% contingency, plus the commodity contingency and adjustments for weather hedge contracts, higher retail sales and Rate Stabilization transfers as set forth in paragraphs (b), (c), (d), (e) and (f) above.

Section 3. Demands against SMUD may be paid without the prior specific approval of this Board if they relate to obligations incurred for the purpose and within the amounts specified in Section 2, provided such demands are approved by the CEO & General Manager or someone to whom he has delegated such approval authority. It is the purpose and intent of this paragraph to delegate to the CEO & General Manager authority to make purchases, to negotiate and execute contracts, and expend funds in any manner necessary or appropriate to the administration of the business affairs of SMUD, all within the amounts and for the purposes set forth above, and subject to the provisions of existing law and of all the duly passed resolutions of this Board, including the Board-approved delegations of authority.

Section 4. At monthly intervals the Treasurer shall transfer from the General Fund appropriate amounts into each of the various funds established to service SMUD's general obligation indebtedness, its Electric System Revenue



Bond indebtedness, and its Electric Revenue Bond indebtedness in approximately equal installments as set forth in the tabulations on file with the Accountant. Investment authority, for all funds, is delegated to the Treasurer for a one-year period in accordance with California Code Section 53607.

Section 5. The number of permanent full-time employees during 2022 shall not exceed 2,210 employees plus a five percent contingency without further authorization of this Board.

Section 6. The Public Goods Charge shall be adjusted from 16.51 percent of 1994 revenues to 15.05 percent of 1994 revenues. The percentage allocation for the public goods charge expenditures shall be adjusted from 7.82 percent to 6.61 percent for low-income assistance, and from 5.45 percent to 6.56 percent for energy efficiency, and from 3.13 percent to 1.88 percent for research and development, and from 0.11 percent to 0.00 percent for new renewable generation.

Section 7. The authorization for spending includes \$51.3 million of commodity for Valley Clean Energy Alliance which will be reimbursed in full to SMUD.

RESOLUTION NO. XX-XX-XX

Supplemental Resolution (Supplemental to Resolutions No. 6457, 8107, 83-7-26 as amended by Resolution No. 87-10-22, No. 92-12-29, No. 93-12-19, No. 94-12-16, No. 95-12-10, No. 96-12-07, No. 97-12-18, No. 98-11-12, No. 99-12-10, No. 00-12-11, No. 01-12-02, No. 02-11-04, No. 03-12-14, No. 04-12-11, No. 05-12-13, No. 06-12-08, No. 07-12-08, No. 08-12-05, No. 09-12-08, No. 10-12-03, No. 11-12-08, No. 12-12-06, No. 13-12-09, No. 14-12-13, No. 15-12-08, No. 16-12-14, No. 17-12-13, No. 18-12-12, No. 19-11-05 and No. 20-12-14) declaring the intention of the Board of Directors of the Sacramento Municipal Utility District to Authorize the issuance of additional **Revenue Bonds**

WHEREAS, Sacramento Municipal Utility District ("SMUD") on

July 23, 1970, May 2, 1974, and July 21, 1983, by the adoption by its Board of Directors of Resolutions No. 6457, 8107, and 83-7-26, as amended by Resolution No. 87-10-22 adopted October 1, 1987; Resolutions No. 92-2-11, No. 92-12-29, No. 93-12-19, No. 94-12-16, No. 95-12-10, No. 96-12-07, No. 97-12-18, No. 98-11-12, No. 99-12-10, No. 00-12-11, No. 01-12-02, No. 02-11-04, No. 03-12-14, No. 04-12-11, No. 05-12-13, No. 06-12-08, No. 07-12-08, No. 08-12-05, No. 09-12-08, No. 10-12-03, No. 11-12-08, No. 12-12-06, No. 13-12-09, No. 14-12-13, No.15-12-08, No.17-12-13, No. 18-12-12, 19-11-05, and 20-12-14 adopted by the Board of Directors on February 6, 1992, December 17, 1992, December 16, 1993, December 15, 1994, December 14, 1995, December 19, 1996, December 17, 1997, November 30, 1998, December 2, 1999, December 7, 2000, December 6, 2001, November 7, 2002, December 4, 2003, December 2, 2004, December 1, 2005, December 7, 2006, December 6, 2007, December 4, 2008, December 3, 2009, December 3, 2010, December 1, 2011, December 6, 2012, December 5, 2013, December 4, 2014, December 3, 2015, December 1, 2016, December 21, 2017, December 20, 2018, November 21, 2019, December 10, 2020, respectively (collectively, the "Prior Resolutions"), found and determined that it was necessary to raise funds by the issuance of revenue bonds in the maximum principal amount of \$7,855,000,000 pursuant to Sections 12850, et seq., of the California Public Utilities Code (the "Act"); and

WHEREAS, in order to provide reliable electric service to its customers, it is necessary for SMUD to make certain capital improvements and other capital expenditures to its system, which capital improvements and other capital expenditures are designed to have useful lives of up to 40 years, or more; and

WHEREAS, to fairly apportion the costs of such capital improvements and other capital expenditures among SMUD's customers who will receive the benefits of such improvements, SMUD has determined to authorize the financing of such improvements and expenditures with bonds of SMUD; and

WHEREAS, to provide bond financing for such improvements and expenditures, it now appears necessary to increase the authorized issue of revenue bonds that may be issued by SMUD pursuant to the Act; and

WHEREAS, the Board of Directors of SMUD desires to inform its customers and the public of its plans for financing capital improvements and

other capital expenditures to its system by specifying certain items for which the proceeds of said revenue bonds are to be used, which uses shall not include daily maintenance and operations costs; **NOW, THEREFORE,**

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF SACRAMENTO MUNICIPAL UTILITY DISTRICT:

Section 1. The Board of Directors of SMUD declares its intention to authorize the issuance of additional revenue bonds or Clean Renewable Energy Bonds for the purpose of financing, in whole or in part, the costs of the capital items identified in SMUD's 2022 capital budget, 2021 capital expenditures not previously financed, the prepayment of purchased power or natural gas and the purchase of natural gas reserves, pipelines or storage facilities, for all of which SMUD is authorized by law to issue such bonds. SMUD has paid or reasonably expects to pay certain expenditures (the "Reimbursement Expenditures") in connection with such capital items prior to the issuance of such bonds, and hereby officially declares its intent to use certain proceeds of such bonds to reimburse the Reimbursement Expenditures. The declarations contained in this section are made solely for purposes of establishing compliance with Section 1.150-2 of the U.S. Treasury Regulations, and do not bind SMUD to make any expenditure, incur any indebtedness or proceed with the abovementioned capital expenditures.

Section 2. The maximum principal amount of the additional revenue bonds proposed to be issued under this supplemental resolution is \$400,000,000. Such maximum principal amount is in addition to the \$7,855,000,000 principal amount of revenue bonds authorized pursuant to the

Prior Resolutions. Such additional bonds may be issued in series from time to time, and it shall not be necessary that all of the bonds proposed to be issued be issued at any one time.

Proceeds from the issuance of these bonds will be used to finance capital improvements identified in SMUD's 2022 capital budget, 2021 capital expenditures not previously financed, capital expenditures for the prepayment of purchased power or natural gas and the purchase of natural gas reserves, pipelines or storage facilities. The declarations contained in this section are made solely for purposes of establishing compliance with Section 12852 of the California Public Utilities Code, and do not bind SMUD to make any expenditure, incur any indebtedness or proceed with the above-mentioned capital expenditures.

Section 3. The maximum term of any of such bonds is 40 years. Said maximum term shall be calculated in each case from the date of each series of bonds in the event the maximum authorized amount is divided into two or more series.

Section 4. The maximum rate of interest to be payable upon such bonds shall not exceed the interest rate per annum equal to the greater of fifteen percent (15 percent) per annum or the yield of United States Treasury bonds having a remaining term equal, as nearly as practicable, to the final maturity of such bonds, as determined by SMUD as of the date of sale of such bonds, plus three percent (3 percent). The maximum discount with respect to such bonds shall not exceed ten percent (10 percent). **Section 5.** This resolution shall take effect immediately, subject only to the right of referendum provided in Article 6a of Chapter 6 of Division 6 of the California Public Utilities Code (beginning at Section 12850 thereof).

Section 6. The Secretary of SMUD is hereby directed to publish a copy of this resolution once a week for two successive weeks in a newspaper of general circulation published within SMUD. At any time within 60 days after the date of the second such publication, a referendum petition signed by voters in number equal to at least three percent (3 percent) of the total vote cast, as defined in Section 11507 of the California Public Utilities Code, demanding the submission of this resolution to a vote of the voters of SMUD for their assent to the issuance of the proposed bonds, may be filed with the Secretary of SMUD. Upon presentation to the Secretary of SMUD of such a referendary petition, this resolution shall not be of effect unless and until it has been assented to by the voters.

2022 Proposed Budget

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2022 Budget Strategic Direction Purpose, Vision & Values

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Strategic Direction



Core Values: Strategically Essential for SMUD

- SD-1 Purpose and Vision Statement
- SD-2 Competitive Rates
- SD-3 Access to Credit Markets
- SD-4 Reliability
- SD-5 Customer Relations
- SD-6 Safety
- SD-7 Environmental Leadership

- SD-8 Employee Relations
- SD-9 Resource Planning
- SD-10 Innovation
- SD-11 Public Power Business Model
- SD-12 Ethics
- SD-16 Information Management & Security Policy
- 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's purpose is to enhance the quality of life for our customers and community by providing reliable and affordable electricity and leading the transition to a clean energy future.

Vision Statement

SD-1B SMUD's vision is to be a trusted and powerful partner in achieving an inclusive, zero carbon economy. SMUD will leverage its relationships to accelerate innovation, ensure energy affordability and reliability, protect the environment, eliminate greenhouse gas emissions, catalyze economic and workforce development, promote environmental justice, and enhance community vitality for all.



Core Values: Strategically Essential for SMUD

- SD-2 Maintain Competitive Rates
- SD-3 Maintain Access to Credit Markets
- SD-4 <u>Reliability</u> Meeting customer energy requirements
- SD-5 Maintain a high level of Customer Relations
- SD-6 <u>Safety</u> Creating a safe environment for employees and the public is a core value of SMUD
- SD-7 <u>Environmental Leadership</u> Continuous improvement in pollution prevention, minimizing environmental impacts, conserving resources and promoting equity within SMUD's diverse communities
- SD-8 <u>Employee Relations</u> Developing and maintaining a high quality, diverse and 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 <u>Resource Planning</u> process
- SD-10 Deliver <u>innovative</u> solutions, products and services to our customers
- SD-11 <u>Public Power Business Model</u> Support and strengthen the public power business model
- SD-12 <u>Ethics</u> 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, as well as physical security, 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, physical security, customer privacy and proper record management.
- SD-17 SMUD will implement and maintain an integrated <u>enterprise risk</u> <u>management</u> process that identifies, assesses, manages and mitigates a variety of risks facing SMUD, including financial, supply, operational, physical and cyber security, climate change, legal, legislative and regulatory, and reputational risk.



Key Values: Provide Value-Added Services

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

2022 Budget Performance Metrics

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Performance Metrics



Strategic Direction	Metric	2021 Forecast	2021 Target	2022 Target
SD-2	Competitive System Average Rates			
Competitive	Percent below Pacific Gas & Electric	36.7%	18.0%	18.0%
Rates	Percent below each Customer Class	31.2%	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	2.12	1.80	1.93
	SMUD Availability of Generation Assets	99%	97%	97%
	Overall Availability of Transmission Assets	100%	>99.99%	>99.99%
	Distribution System Reliability ¹			
	Duration of Outages (SAIDI)			
	SAIDI With Major Event	213.6 min	67.5 - 93.3 min	67.5 - 93.3 min
	SAIDI Excludes Major Event	55.1 min	49.7 - 68.7 min	49.7 - 68.7 min
	Frequency of Outages (SAIFI)			
	SAIFI With Major Event	1.48	0.99 - 1.33	0.99 - 1.33
	SAIFI Excludes Major Event	1.09	0.85 - 1.14	0.85 - 1.14

Performance Metrics (continued)



Strategic Direction	Metric	2021 Forecast	2021 Target	2022 Target
SD-5 Customer	Customer Satisfaction Survey ²	95%	95%	95%
Relations	Value for What You Pay ³	76%	70%	72%
	Shift safety culture, improve safety results, and maintain positive financial performance			
	Leading Indicator			
	Employee-Supervisor Interactions	173%	95%	95%
	Incident Reports ≤ 3 days ⁴	88%	95%	95%
SD-6 Safety	Incident Investigations \leq 5 days ⁵	65%	95%	95%
	Days Away Restricted Time (DART)			
	Severity incidents to 13 or less than by 2025	16	23	20
	Workers' Compensation Workers' compensation program performance	\$1.29	\$0.85	\$0.76
SD-8 Employee	Employee Engagement ⁶			
Relations	Sustain Employee Engagement	TBD	>80%	>80%

Performance Metrics (continued)



Strategic Direction	Metric	2021 Forecast	2021 Target	2022 Target
	Reduce carbon emissions			
	Energy efficiency and electrification from buildings (2030 goal: 365,000)	90,723	95,760	131,359
SD-9 Resource	Energy efficiency and electrification from transportation ⁷ (2030 goal: 1,000,000)	68,991	70,500	88,383
Planning	Procure Renewable Energy to achieve SMUD's Renewable Portfolio Standards requirements % of SMUD's Retail Sales	35.8%	35.8%	38.5%
	(Statutes require: 44% by 2024, 52% by 2027, and 60% by 2030)			
SD-13 Economic Development	Supplier Education and Economic Development (SEED) - Percent of Contract Dollars	20%	20%	20%



Footnotes:

- [1] 2021 Forecast is based on 2021 Actuals through September 30 and 2018-2020 for October through December. One major event occurred January 26-29th 2021. In 2021, 2 of the 4 metrics for SAIDI/SAIFI are projected to be within the Strategic Direction. The impact to SAIFI and SAIDI during the major event far exceeded the allowance provided for the major event threshold.
- [2] The Customer Satisfaction metric measures customers responding as very satisfied or satisfied with service received in the areas of New Connects, Billing Inquiries, Outbound Outage Communication, Tree Trimming, IVR One Payment or IVR Payment Arrangements.
- [3] 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. While the 2021 Forecasted VFP score is above target, we expect a negative correction in the 2022 VFP score due to the restart of shut-offs, collections, late fees and rate increases.
- [4] As of the end of September, 32 of the 37 incidents included in this metric were reported within 3 days of the supervisor being notified. The prediction is based off the performance in the last 9 months.
- [5] As of the end of September, 20 of the 31 incidents included in this metric have been investigated and completed in SITS on or before the due date. The prediction is based off the performance in the last 9 months.
- [6] 2021 Engagement Survey was deployed mid-October to early November and results are not yet available.
- [7] Currently metrics include light-duty vehicles only. Working to add Medium and Heavy Duty.

2022 Budget Business Units & Segments and Organizational Chart

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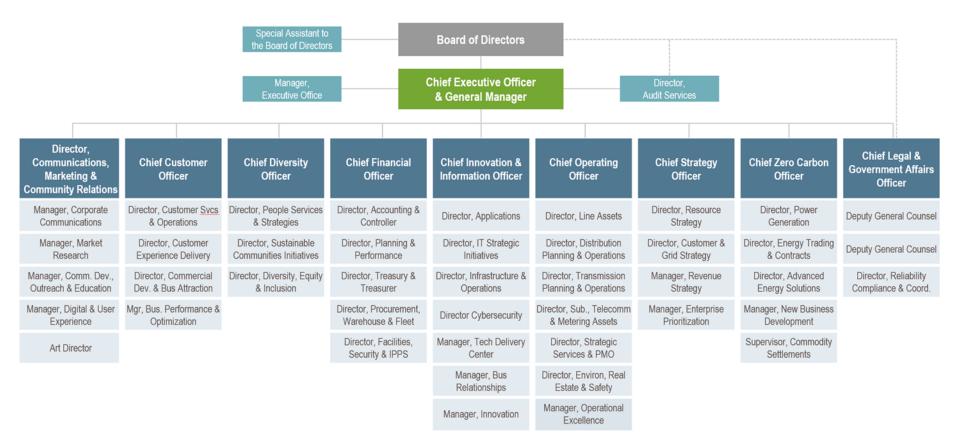
Business Units & Segments



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

Customer & Community	Energy Delivery & Operations	Zero Carbon Energy Solutions	Enterprise Strategy	Workforce, Diversity & Inclusion	Technology & Innovation	Corporate/ Enterprise
Customer Experience Delivery	Transmission Planning & Ops	Power Generation	Resource Strategy	People Services & Strategies	Applications	Governance
Customer Services & Operations	Distribution Planning & Ops	Advanced Energy Solutions	Revenue Strategy	Diversity, Equity & Inclusion	Infrastructure & Operations	Finance
Revenue Services & Operations	Line Assets	Commodity, Procurement & Sales	Customer & Grid Strategy	Sustainable Communities	Strategy & Innovation	Legal, Gov't Affairs & Reliability Compliance
Community Energy Services	Substation, Telecom & Network	New Business Development	Enterprise Prioritization		Strategic Initiatives	Facilities, Security & Office Services
Commercial Development & Business Attraction	Strategic Services & PMO				Cybersecurity	Procurement, Warehouse & Fleet
	Environmental, Real Estate & Safety					Comm. Marketing & Community Relations
	Operational Excellence					Enterprise Affairs





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

2022 Budget Economic Outlook & Assumptions

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The planning data presented here is based on a recent update as part of the Load Forecasting process.

New customers to be added to SMUD's customer base in 2022 are projected to total approximately 4,766. This is less than a 1 percent annual growth rate, which is below the average growth during the past decade. Of the 2022 projection, 4,076 are new residential customers and 690 are other customers. Looking to the future, we are seeing regular growth in residential and commercial customers.

	2021	New	2022
	Budget	Customers	Budget
Residential customers	572,084	4,076	576,160
All other customers	76,148	690	76,838
TOTAL customers*	648,232	4,766	652,998

*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 2022 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 2022 is based on formulas contained in negotiated bargaining agreements.

Economic Outlook & Assumptions SM



(continued)

Energy Sales & Requirements

Description	2021 Budget	2022 Proposed	Change vs Budget
Expected System Peak (MW)	2,870	2,874	4
Expected Retail Energy Sales (GWh)	10,087	10,166	79
Expected Wholesale Sales, Distribution & Transmission Losses (GWh)	474	444	(30)
Expected Supply Requirements (GWh)	10,561	10,610	49
GENERATION			
Total SMUD Generation (GWh)	6,820	7,410	590
SMUD Generation as a % of expected supply requirement	65%	70%	5%
PURCHASED POWER			
Net Purchased Power (GWh)	3,742	3,199	(543)
Net Purchased Power as % of expected supply requirement	35%	30%	-5%
GAS			
Expected Gas Burn (NG+Biogas) for Thermal Generation and Steam Sales (mmBtu)	33,248,660	40,112,300	6,863,640
Committed Fuel (NG+Biogas) Purchases (mmBtu)	29,090,645	33,998,352	4,907,707
Committed Purchases (NG+Green Gas) as a % of Expected for Thermal Generation and Steam Sales	87%	85%	-2%
ACTUAL / FORWARD PRICES of UNCOMMITTED TRANSACTIONS			
On Peak Power Price Forecast (\$/MWh)	\$42	\$74	\$32
Off Peak Power Price Forecast (\$/MWh)	\$34	\$60	\$26
Flat Power Price Forecast (\$/MWh)	\$39	\$68	\$29
Forward Natural Gas Price Forecast (\$/mmBtu)	\$3.08	\$5.61	\$2.53

Energy sales to customers is projected to increase slightly from the 2021 Budget assumption.

Unmanaged Peak load is forecasted to increase by 4MW from the 2021 Budget assumption.

Economic Outlook & Assumptions (Content of Second Secon



(continued)

Energy Requirements

Summary (GWh)	2021 Budget	2022 Proposed	Change vs Budget	Change vs Budget
Generation:	GWh	GWh	GWh	GWh
SMUD-Owned Large Hydro	1,503	1,252	(251)	-17%
SMUD-Owned Gas Fired	4,239	5,149	910	21%
SMUD-Owned Renewable	1,077	1,009	(68)	-6%
TOTAL - Generation	6,820	7,410	590	9%
Market Energy:	GWh	GWh	GWh	GWh
Uncommitted Sales	(2,473)	(2,898)	(425)	17%
Long-Term Contracts	4,185	4,494	309	7%
Short-Term Purchases	0	63	63	100%
Uncommitted Purchases	2,087	1,581	(506)	-24%
TOTAL - Market Transactions	3,799	3,240	(559)	-15%
Transmission Losses	(58)	(41)	17	-29%
TOTAL - Supply Requirement	10,561	10,609	48	0%

Economic Outlook & Assumptions



(continued)

Power Supply Assumptions

The 2030 Zero Carbon Plan is the basis for the operating assumptions for the 2022 Budget. Electricity and natural gas prices are forecasted to be higher than what was projected in the 2021 Budget. The Upper American River Project (UARP) generation will be lower, and renewable and thermal generation are forecasted to be higher than 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 2022 Budget.

Economic Outlook & Assumptions () SMUD



(continued) **SMUD** Generation

SMUD Hydroelectric (Upper American River Project): The 2022 Budget assumes median rainfall and normal starting reservoir levels in 2022. Generation is expected to be 1,303 GWh.

Other SMUD Generation (South Fork, Chili Bar, Photovoltaic, Hedge Battery, Solano Wind): The 2022 Budget assumes average generation subject to limitations governing the operation of each plant. The largest contributor, Solano Wind is expected to generate 593 GWh.

Cosumnes Power Plant: This 570 MW gas-fired combined cycle power plant began commercial operation in February 2006. Forecasted generation from this plant in 2022 is 3,761 GWh.

Carson Cogeneration: This gas-fired cogeneration project, which began commercial operation in October 1995, consists of a 65 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 2022 is 399 GWh.

Procter & Gamble Cogeneration: This gas-fired cogeneration plant began commercial operation in March 1997. It consists of a 136 MW combined cycle power plant and a 50 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 2022 is 725 GWh.

Campbell Soup Cogeneration: This gas-fired combined cycle plant, began commercial operation in December 1997. It consists of a 160 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 2022 is 591 GWh.

Economic Outlook & Assumptions () SMUD



(continued) **Purchased Power**

The 2022 Budget assumes delivery of energy and capacity from the following contracts:

Western Area Power Administration (WAPA) / Central Valley Project (CVP): Provide 265 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 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.

Grady Wind: Provide 200 MW of capacity and 803 GWh of energy of 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 211 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.

Economic Outlook & Assumptions



(continued)

Purchased Power (continued)

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.

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

Navajo Solar: Provide 100 MW of capacity and 286 GWh of energy under an agreement that expires in December 2051.

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 22 GWh of energy under a 30-year agreement which expires in August 2036. Rancho Seco II provides 160 MW of capacity and 335 GWh of energy through November 2039.

Recurrent Solar: Provide 60 MW of capacity and 171 GWh of energy under an agreement that expires in December 2037.

<u>Sutter Energy Center</u>: Provide 258 MW of capacity and 1,238 GWh of energy under a three-year contract with Calpine Energy Services, L.P. effective January 2021 from a natural gas-fired, combined-cycle.

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

Economic Outlook & Assumptions



(continued)

Purchased Power (continued)

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.

2022 Budget Budget Summary

Powering forward. Together.



Budget Summary



Overview

The 2022 Budget Authorization totals \$1.7 billion. This represents a decrease of \$9 million from the 2021 Budget. The 2022 Budget is a request to authorize new spending.

The 2022 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, 2022. Historical comparisons to the 2021 Budget adopted by the Board on December 10, 2020, are shown to put the 2022 Budget in perspective. A forecast of actual 2021 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 Customer & Community Services, Zero Carbon Energy Solutions and Energy Delivery & Operations Business Units. Included within Zero Carbon 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 Enterprise Strategy, Technology & Innovation, Workforce, Diversity & Inclusion 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 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 2022. 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 service costs such as transportation, facilities, technology, human resources, safety and security. Expenditures budgeted by Technology & Innovation, Workforce, Diversity & Inclusion, Energy Delivery & Operations and Corporate 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 2022 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 Zero Carbon Energy Solutions are fuel, operating and interest expense associated with SFA: Carson Cogeneration plant, Procter & Gamble plant, Campbell Soup Cogeneration plant, Cosumnes Power Plant; NCGA No. 1, and NCEA pass-through gas costs. These expenses are shown in the SMUD Budget because SMUD will reimburse SFA, NCGA No. 1 and NCEA for their costs under the terms of the Power and Gas Purchase Agreements. The detailed SFA, NCGA No. 1 and NCEA Budgets are also in separate booklets and/or resolutions as they will be approved by the 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.

<u>ALLOCATED</u>: Costs in four business units: Technology & Innovation, Workforce, Diversity & Inclusion, Energy Delivery & Operations and Corporate Services, which enable the business units to perform work. These costs are allocated to both O&M and capital, based on the quantity of labor hours. The aggregated allocated costs 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 Debt Service Summary.

Budget Summary (continued)



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)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Commodity (net) [1]	463,967	440,889	440,681	(208)	0%
Customer/Community (excl. PubGd)	\$86,783	\$96,224	\$94,830	(\$1,394)	-1%
Public Good	9,874	10,557	7,661	(2,896)	-27%
Customer/Community	96,657	106,781	102,491	(4,290)	-4%
Energy Delivery & Operations	175,403	187,260	204,655	17,394	9%
Zero Carbon (excl. PubGd)	132,272	144,105	159,135	15,030	10%
JPA Interest Expense	5,332	5,332	4,773	(559)	-10%
Public Good	35,179	53,062	51,776	(1,286)	-2%
Zero Carbon Energy Solutions	172,783	202,499	215,684	13,186	7%
Energy Operations (excl. PubGd)	12,788	11,943	16,861	4,919	41%
Public Good	447	627	609	(18)	-3%
Enterprise Strategy	13,235	12,570	17,470	4,900	39%
Workforce (excl. PubGd)	5,410	7,177	7,566	389	5%
Public Good	1,544	1,676	1,615	(61)	-4%
Workforce, Diversity & Inclusion	6,954	8,854	9,181	328	4%
Technology & Innovation	34,451	38,906	36,476	(2,430)	-6%
Corporate (excl. PubGd)	93,952	91,070	104,106	13,036	14%
Public Good	1,289	1,471	1,924	452	31%
Corporate	95,242	92,541	106,029	13,488	15%
Enterprise (excl. PubGd)	13,711	16,502	(9,184)	(25,686)	-156%
Public Good	0	700	0	(700)	-100%
Enterprise	13,711	17,202	(9,184)	(26,386)	-153%
Other Employee Benefits [2]	(969)	32,704	40,359	7,655	23%
O&M Budget Authorization	\$1,071,434	\$1,140,206	\$1,163,842	\$10,659	2%
Revenue	(70)	(25)	(25)	0	0%
O&M Net	\$1,071,364	\$1,140,181	\$1,163,817	\$10,659	2%

[1] Net of surplus sales. The 2022 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. 2021 forecast includes Accounting adjustments of (\$25.5M).

O&M Budget Summary (continued)



Cost Category (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
ActivityType Labor	\$228,217	\$245,707	\$258,081	\$12,373	5%
Material & Equipment	8,342	9,614	8,453	(1,162)	-12%
Dues & Publications	5,087	6,584	6,787	203	3%
General Expenditures	35,603	52,377	13,507	(38,870)	-74%
Outside Services	145,056	148,150	184,216	36,065	24%
Advertising	3,101	3,725	3,868	143	4%
Utilities & Postage	8,033	7,716	9,219	1,503	19%
Insurance	24,300	24,228	27,200	2,972	12%
Rebates & Incentives	18,998	28,216	34,018	5,802	21%
Commodities	583,526	587,406	693,071	105,664	18%
Surplus/Whsl Pwr Sales	(108,216)	(97,957)	(201,120)	(103,164)	105%
Non-Labor Expenditures	723,829	770,060	779,217	9,157	1%
Cost Reduction/Reimb	(22,560)	(62,552)	(63,922)	(1,370)	2%
Cost Center Overhead	52,845	54,115	50,655	(3,460)	-6%
Surcharges	84,740	94,840	94,679	(161)	0%
Expenditures Subtotal	1,067,071	1,102,170	1,118,710	16,540	2%
JPA Interest	5,332	5,332	4,773	(559)	-10%
Other Employee Benefits	(969)	32,704	40,359	7,655	23%
O&M Budget Authorization [1]	\$1,071,434	\$1,140,206	\$1,163,842	\$23,636	2%
Revenue	(70)	(25)	(25)	0	0%
O&M Net	\$1,071,364	\$1,140,181	\$1,163,817	\$23,636	2%

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



Public Good

Description (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Energy Efficiency	\$28,523	\$35,666	\$42,975	\$7,308	20%
Residential Assistance	10,390	11,193	8,296	(2,897)	-26%
Renewables	10	724	0	(724)	-100%
Research & Development	9,411	20,511	12,314	(8,197)	-40%
Public Good Budget Authorization	\$48,334	\$68,094	\$63,585	(\$4,509)	-7%
Rate Subsidy	34,369	40,021	35,024	(4,997)	-12%
Total Public Good [1], [2]	\$82,703	\$108,115	\$98,609	(\$9,506)	-9%

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

[2] Specific information is provided within Customer/Community, Zero Carbon, Workforce and Corporate sections.

O&M Budget Summary (continued)



Commodity Budget

Description (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Purchased Power (net) [1]	\$286,400	\$251,152	\$215,005	(\$36,147)	-14%
Fuel for Generation	158,193	159,567	196,925	37,358	23%
Transmission	30,189	30,169	28,751	(1,418)	-5%
O&M Commodities	\$474,782	\$440,889	\$440,681	(\$208)	0%

[1] Excludes transfer of \$10.8M from Rate Stabilization Fund.



The O&M Proposed Budget for 2022 totals \$1,164 million, which is \$10.7 million or 2 percent higher than the 2021 Budget.

Business Unit O&M:

Total Business Unit O&M, excluding Commodity and Public Good, is \$659.6 million, which is \$28.4 million higher than the 2021 Budget. The 2022 Proposed Budget includes increased mandatory spending for Vegetation Management and Wildfire Mitigation. The 2022 Budget also funds ongoing efforts for Community Initiatives, maintaining operations, and Transportation Electrification. Transportation Electrification is a critical part of our newly-adopted 2030 Zero Carbon Plan and an important part of our strategy to continue to provide a leadership role in the region's transformation to a zero-carbon future.

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

Public Good: Total Public Good is \$99 million, a decrease of \$9.5 million, after inclusion of rate subsidies. The Public Good Budget is \$63.6 million. The difference is because the Budget represents the cash disbursement portion of the program that requires Board authorization.

By December 2022, the number of subsidized customers is expected to be approximately 128,983. The total cost of the EAPR subsidy is budgeted at \$33 million in 2022, a decrease of \$5.4 million from 2021, and the subsidy for customers using medical equipment increased by \$0.4 million to \$2 million. Total subsidies are \$35 million.

Energy efficiency spending increased \$7.3 million. Incorporation of savings from codes and standards is 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 and reflects our goals of reaching zero carbon by 2030. Research & Development decreased \$8.2 million to \$12.3 million as funds are being diverted to energy efficiency, building electrification and transportation electrification programs.

More detailed and specific information is provided within the Customer, Zero Carbon Energy Solutions, Workforce, Diversity & Inclusion and Corporate Services Business Unit documentation.



<u>Commodities</u>: The Commodity budget for 2022 of \$440.7 million is \$0.2 million lower than the 2021 Budget. Purchased power is decreasing due to lower prices for a new renewable energy contract, the expiration of a higher priced contract, and power sales to market. Fuel for Generation is increasing due to low reservoir levels leading to low hydro generation coupled with an increase in gas prices. There is a slight decrease in transmission costs for TANC and WAPA. Further details on power supply information can be found on pages 17-24.

Other Employee Benefits: SMUD's Other Employee Benefits, is \$40.4 million, an increase of \$7.7 million. This item consists of the O&M portion (unfunded liability) of Other Post-Employment Benefits (OPEB) expense of \$23.6 million, \$3.7 million of workers compensation and GASB 68 accounting adjustments of \$13 million.



Description (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Customer/Community	\$3,967	\$6,884	\$6,619	(\$265)	-4%
Energy Delivery & Operations	185,166	196,494	192,866	(3,628)	-2%
Zero Carbon Energy Solutions	68,068	82,736	108,405	25,669	31%
Technology & Innovation	20,278	27,327	37,245	9,918	36%
Corporate	23,522	31,363	29,777	(1,586)	-5%
Contingency & Reserve	0	46,100	(15,000)	(61,100)	-133%
Capital Budget Authorization	\$301,000	\$390,903	\$359,911	(\$30,992)	-8%
Revenue	(587)	0	(1,106)	(1,106)	100%
Capital Net	\$300,414	\$390,903	\$358,805	(\$32,099)	-8%



Cost Category (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	· ·	% Change vs Budget	
ActivityType Labor	\$59,362	\$62,642	\$80,620	\$17,977	29%	
Material & Equipment	56,583	72,415	78,796	6,381	9%	
Dues & Publications	100	91	91	0	0%	
General Expenses	29,794	68,471	(5,577)	(74,048)	-108%	
Outside Services	144,828	154,510	176,129	21,620	14%	
Advertising	9	0	0	0	0%	
Utilities & Postage	12	3	3	0	0%	
Insurance	543	659	733	74	11%	
Non-Labor Expenses	231,869	296,148	250,175	(45,973)	-16%	
Cost Reduction/Reimb	(34,629)	(21,870)	(28,020)	(6,150)	28%	
Expenditures	256,602	336,921	302,775	(34,146)	-10%	
Cost Center Overhead	16,683	18,147	17,851	(297)	-2%	
Surcharges	27,715	35,835	39,285	3,450	10%	
Capital Budget Authorization	\$301,000	\$390,903	\$359,911	(\$30,992)	-8%	
Revenue	(587)	0	(1,106)	(1,106)	100%	
Capital Net	\$300,414	\$390,903	\$358,805	(\$32,099)	-8%	



<u>Capital</u>: The proposed 2022 capital investment budget is \$359.9 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.

Major capital expenditures planned in 2022 include continuing work for Station G, starting development work for additions to our wind farm with Solano Phase IV, and ongoing improvements in our UARP area as part of our hydro relicense. Programmatic capital planned in 2022 includes cable and pole replacement programs, installing new meters, and new fleet purchases. Technology investments included in the 2022 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 with our Talent Technology Transformation (T3) project.

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



Description (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Workforce, Diversity & Inclusion	\$11,299	\$12,332	\$13,224	\$892	7%
Technology & Innovation	59,939	62,378	65,432	3,054	5%
Energy Delivery & Operations	3,820	3,675	4,082	407	11%
Corporate	46,744	52,931	50,363	(2,567)	-5%
Total Allocated Budget [1]	\$121,802	\$131,316	\$133,102	\$1,786	1%

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



Cost Category (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget		
ActivityType Labor	\$59,391	\$65,899	\$64,275	(\$1,624)	-2%	
Material & Equipment	32,300	28,532	34,032	5,501	19%	
Dues & Publications	128	113	113	(1)	-1%	
General Expenses	300	460	545	86	19%	
Outside Services	9,957	12,951	11,915	(1,036)	-8%	
Advertising	32	44	56	13	29%	
Utilities & Postage	1,433	1,844	1,883	39	2%	
Insurance	231	317	410	92	29%	
Non-Labor Expenses	44,381	44,260	48,953	4,693	11%	
Cost Reduction/Reimb	(500)	(436)	(107)	329	75%	
Expenditures	103,271	109,723	113,121	3,398	3%	
Cost Center Overhead	14,425	15,437	14,155	(1,282)	-8%	
Surcharges	4,105	6,155	5,826	(330)	-5%	
Total Allocated Budget [1]	\$121,802	\$131,316	\$133,102	\$1,786	1%	

[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 2022 totals \$133.1 million, which is \$1.8 million higher than the 2021 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. Workforce, Diversity & Inclusion, Technology & Innovation, Energy Delivery & Operations and Corporate Services costs are allocated to business units based on the quantity of labor hours.

More specific and detailed information is provided within each of the previously mentioned Business Unit's sections of this documentation.

Position Count Summary



Executive Hierarchy	2021 Full-time	2021 Limited Term	2021 Part-time	2021 Positions Planned	2022 Full-time	2022 Limited Term	2022 Part-time	2022 Positions Planned	Increase/ Decrease
CEO & General Manager	33	0	1	34	33	0	1	34	0
Communications, Marketing & Community Relations	63	2	3	68	64	1	3	68	0
Chief Legal & Gov't Affairs Officer	38	0	4	42	38	0	4	42	0
Chief Financial Officer	302	7	8	317	307	2	5	314	(3)
Chief Operating Officer	779	21	21	821	796	14	16	826	5
Chief Zero Carbon Officer	246	1	4	251	254	2	7	263	12
Chief Strategy Officer	41	0	6	47	46	0	2	48	1
Chief Customer Officer	278	29	105	412	296	7	104	407	(5)
Chief Diversity Officer	74	7	9	90	80	6	24	110	20
Chief Information & Innovation Officer	262	12	36	310	265	7	37	309	(1)
Enterprise Resource Pool	41	13	1	55	31	0	0	31	(24)
Full-time				2,157				2,210	53
Limited Term				92				39	(53)
Part-time				198				203	5
SMUD Total	2,157	92	198	2,447	2,210	39	203	2,452	5

Position Count: The full-time count of 2,210 is identified in the Board Resolution.



Executive Hierarchy (\$000)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
CEO & General Manager	\$13,478	\$15,288	\$16,567	\$1,279	8%
Chief Legal & Gov't Affairs Officer	5,736	5,797	5,892	95	2%
Chief Financial Officer	34,484	36,193	35,653	(540)	-1%
Chief Operating Officer	117,917	121,815	127,756	5,941	5%
Chief Strategy Officer	5,849	6,631	7,066	435	7%
Chief Zero Carbon Officer	31,057	29,905	37,033	7,128	24%
Chief Customer Officer	32,351	36,079	34,187	(1,892)	-5%
Chief Diversity Officer	9,546	8,882	11,402	2,520	28%
Chief Information & Innovation Officer	36,181	39,033	39,835	802	2%
Salaries & Wages*	\$264,639	\$281,710	\$295,685	\$7,167	5.0%
Overtime	\$21,961	\$17,913	\$19,706	\$1,474	10.0%
SMUD TOTAL	\$286,600	\$299,623	\$315,391	\$15,768	5.3%

*Salaries & Wages includes paid leave ----- 2021 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.



Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Active Employee Benefits	\$43,006	\$45,188	\$48,564	\$3,376	7%
Administer Benefits	2,103	2,532	2,380	(153)	-6%
Normal Cost Retirement Funding (OPEB)	0	9,597	8,290	(1,307)	-14%
Subtotal Health & Welfare	\$45,109	\$57,317	\$59,234	\$1,916	3%
FICA Contribution	21,437	22,472	23,654	1,183	5%
Retirement Contribution	119,940	71,159	68,155	(3,004)	-4%
Subtotal FICA and Retirement	\$141,377	\$93,631	\$91,809	(\$1,821)	-2%
TOTAL	\$186,486	\$150,948	\$151,043	\$95	0%

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. 2022 Proposed Budget is increasing slightly due to higher active employee benefits, offset by lower Normal Cost (OPEB) and Retirement Contribution expenses compared to 2021 Budget.

2022 Budget Debt Service

SMUD°

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The following schedules show the summary and details of the 2022 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 \$109.2 million in the 2022 Budget, a decrease of \$4.4 million from 2021.

<u>Commercial Paper Interest</u> totals \$4.1 million in the 2022 Budget, an increase of \$0.3 million from 2021. Short-term interest rates assumed for 2022 are an average of 0.10%; The budget assumes an average commercial paper balance of \$100 million.

<u>Scheduled Principal Repayments</u> of revenue bonds and commercial paper notes total \$100.2 million in 2022, a \$2.1 million increase from 2021.

Fees/Bond Issuance Costs of \$2.3 million are included for new 2022 bond issuances and related fees.



Debt Service (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Interest Expense ¹	\$116,297	\$117,425	\$113,294	(\$4,131)	-3%
Principal Repayments	98,040	98,040	100,150	2,110	2%
Fees/Bond Issuance Cost	794	2,079	2,310	231	191%
Total Debt Service	\$215,131	\$217,544	\$215,754	(\$1,790)	0%
Allocated to JPAs	(3,812)	(3,812)	(3,596)	216	-6%
NET DEBT SERVICE	\$211,319	\$213,732	\$212,158	(\$1,574)	0%

[1] Build America Bonds are shown gross of the rebate of \$9.3 million expected in 2022. 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)



Date Issued	Issue	1/1/2022 Principal Balance	Issued Interest Rate	Final Maturity Date	2022 Scheduled Principal Payment	2022 Interest Expense
	Electric Revenue Bonds				-	
Jun-97	Series K ¹	55,835	5.25% to 5.90%	2024	17,670	90
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)	0	1.50% to 5.00%	2028	-	0
Jan-12	Series Y (Refunding)	163,765	3.00% to 5.00%	2033	5,980	7,935
May-13	Series A	132,020	3.75% and 5.00%	2041	-	6,592
May-13	Series B (Refunding)	81,880	3.00% to 5.00%	2033	60	3,996
Jul-16	Series D (Refunding)	124,160	5.00%	2028	20,100	5,715
Dec-17	Series E (Refunding)	132,870	3.00% to 5.00%	2028	21,285	6,241
Aug-18	Series F (Refunding)	127,645	5.00%	2028	24,400	5,921
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
Jul-21	Series I ⁴ (Refunding)	106,875	5.00%	2028	10,655	5,142
Jul-22	Series J	157,785	2.06%	2032	-	1,451
	Subtotal	1,966,925	-		100,150	99,170
	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	200,000	-		-	10,000
	Total Outstanding Bonds	2,166,925	Principal & Interest F	Payments	100,150	109,170
	Total Debt Service				100,150	109,170

1) Swapped to a variable rate for the life of the debt, interest expense net of swap payment. Interest expense without swap would be \$2,467,500.

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 2012Y refunding

2022 Budget Business Forecast

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Business Forecast



The 2022 business forecast is a set of pro forma (projected) financial statements, which are derived from the 2022 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 2022 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 2022 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 Sacramento Financing Authority (SFA), the Northern California Gas Agency No. 1 (NCGA No. 1) and the Northern California Energy Authority (NCEA). SFA is a joint powers agency 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 a Power Purchase Agreement with 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. NCEA is a joint the event of a default. The relationship between SMUD, 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 2022 Budget will produce \$116 million of net income for SMUD; this is an increase of \$39 million from the 2021 Budget. The fixed charge coverage is planned at 1.93 times operating cash flow. Revenue from electric sales has increased compared to the 2021 Budget due to the impact of the 2022 rate increase.

SMUD's unrestricted cash balance is forecasted to be \$429 million at the end of 2022. We currently maintain \$400 million in commercial paper capacity and any new money needs can be handled through commercial paper or issuing new debt.

Business Forecast (continued)



Pro Forma Consolidated Income Statement

\$Millions	2021 Forecast	2021 Budget	2022 Proposed
Operating Revenues:			
Sales to Customers	\$1,561.2	\$1,508.0	\$1,549.4
RSF & Other Deferrals	(0.6)	11.4	19.3
Other Electric Revenue	27.6	28.0	32.6
TOTAL OPERATING REVENUES	1,588.2	1,547.3	1,601.3
Operating Expenses:			
Commodities	464.0	440.9	440.7
Customer &Community	86.8	96.2	94.8
Energy Delivery & Operations	175.7	187.3	204.7
Zero Carbon Energy Solutions	137.6	149.4	163.9
Enterprise Strategy	12.8	11.9	16.9
Workforce, Diversity & Inclusion	5.4	7.2	7.6
Technology & Innovation	34.5	38.9	36.5
Corporate Services	93.9	91.1	104.1
Enterprise	12.7	49.2	31.2
Public Good (including EAPR & MED Discount)	82.7	108.1	98.6
Total Operations	1,106.1	1,180.2	1,198.8
Depreciation, Depletion, and Amortization	217.4	220.4	222.6
TOTAL OPERATING EXPENSES	1,323.5	1,400.6	1,421.4

Note: The allocated portion of 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, Zero Carbon Energy Solutions, Corporate and Enterprise Strategy is included on other line items in the Pro Forma Consolidated Income Statement.

Business Forecast (continued)



Pro Forma Consolidated Income Statement (continued)

\$Millions	2021 Forecast	2021 Budget	2022 Proposed
	FUIECaSi	Buugei	Fioposed
Other (Income) Expenses:			
Interest Income and Other	(\$3.2)	(\$17.9)	(\$14.0)
Other Non Cash	(10.7)	(12.8)	(15.1)
TOTAL INTEREST INCOME & OTHER	(13.8)	(30.8)	(29.1)
Interest Expense:			
Interest expense	97.0	99.9	92.6
NET INTEREST CHARGES	97.0	99.9	92.6
CHANGE IN NET POSITION - NET INCOME (LOSS)	\$181.6	\$77.6	\$116.4
Interest Devreente	114.9	114.8	110.1
Interest Payments Principal Payments	114.9	114.0	115.6
TOTAL FIXED COSTS	227.9	227.8	225.8
Cash Available to Pay Fixed Costs	482.4	409.6	435.7
FIXED CHARGE COVERAGE RATIO	2.12	1.80	1.93
RATE STABILIZATION FUND	69.1	34.0	69.1



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

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

<u>Other Electric Revenue</u>: 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.

<u>Commodities</u>: 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.

<u>Customer & Community</u>: The Customer & Community Services budget includes all residential and commercial customerfocused services such as the Contact Center, retail client services and customer experiences. Also included are costs for billing, revenue assurance, and commercial development and business attraction. Lastly, this budget includes support of the Community Energy Services (CCAs).

Energy Delivery & Operations: The Energy Delivery & Operations budget includes the costs of generating electricity, delivering it to our customers and maintaining the ability to do so safely and reliably. Also, the cost of electrical transmission, line inspections, corrective and preventative maintenance, vegetation management, and underground cable work are included here. Lastly, this budget includes program management services for construction and other non-technology projects, transmission and distribution planning and operations, environmental, safety and real estate services.

Zero Carbon Energy Solutions: The Zero Carbon Energy Solutions budget includes the design, construction, maintenance, and transition of SMUD's power generation assets, the sale and procurement of energy resources and settlements of energy transactions, and customer program implementation. 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 included is establishing and developing new business partnerships that align and support SMUD's 2030 zero carbon goal.



Enterprise Strategy: The Energy Strategy budget includes enterprise strategic planning and prioritization, resource market strategy and planning, customer and grid strategy support of DERs, integrated distributed resources, low carbon fuel standard work, Zero Carbon and R&D strategies. Also, included are revenue strategy functions like load forecasting and rates and pricing as well as enterprise prioritization.

<u>Workforce, Diversity & Inclusion</u>: The Workforce, Diversity & Inclusion budget includes the costs of employee services such as talent management, benefits management, learning and development programs as well as work for developing and implementing strategies and initiatives to establish SMUD as a diverse and inclusive employer. Also included are sustainable communities' initiatives and programs.

<u>Technology & Innovation</u>: The Technology & Innovation 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. The innovation function supports SMUD-wide initiatives.

<u>Corporate Services</u>: The Corporate Services budget includes the costs associated with corporate governance such as executive management and internal audit; strategic and finance functions like accounting, treasury, financial planning, and enterprise performance; and enterprise services such as procurement, warehouse, vehicle fleet operations, facilities operations and maintenance, and communications, marketing, and community relations. Also included are legal functions including legislative, regulatory, government affairs, corporate legal and records management, 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 0.21 percent on unrestricted and restricted cash balances. This line also includes remaining interest income on energy efficiency loans to customers, and any interest earned by 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.

<u>Interest Expense</u>: 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.

<u>Interest Payments</u>: 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, SFA and SMUD's share of TANC debt service.

<u>Rate Stabilization Fund</u>: 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.

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

<u>Restricted for Debt Service</u>: 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:	2022 Budget
Receipts from Customers	1,505
Other Electric Revenue	54
Total Operating Sources of Funds:	1,559
Operating Uses of Funds:	
Net Operating Expenses	705
Commodity Expenses	428
Total Operating Uses of Funds:	1,134
Net Source of Funds from Operations:	425
Financing Sources of Funds:	
Proceeds from Debt Issuance	0
Commercial Paper Issuance	103
Total Financing Sources of Funds:	103
Financing Uses of Funds:	
Capital Expenditures & Other Cash Payments	409
Net Loans	(0)
Principal Payments on Debt	112
Interest Payments on Debt	97
Total Financing Uses of Funds	618
Net (Use) of Funds from Financing:	(515)
Investing Sources of Funds:	
Interest Income	4
Net Source of Funds from Investing:	4
Net Use of Funds from 2022 Budget	(86)
PROJECTED UNRESTRICTED CASH BALANCE @ 1/1/22	534
Net Cash Outflow from 2022 Budget	(189)
New Debt & Commercial Paper Issue	103
Net Change in Debt Service Reserve Funds	0
Transfer from Unrestricted to Restricted	(20)
PROJECTED UNRESTRICTED CASH BALANCE @ 12/31/22	429



The 2022 Pro Forma Cash Flow Statement shows the budgeted sources and uses of cash and the projected year-end unrestricted cash balance for 2022. 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 \$427 million. At the end of 2022, SMUD's unrestricted cash balance is projected to be \$429 million, in addition to the Rate Stabilization Fund balance of \$69 million. The Hydro Rate Stabilization Fund balance, which is expected to be \$56 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 2022, cash generated from operations is estimated to total approximately \$425 million. The primary uses of this cash are capital investments, scheduled debt principal repayments and interest payments. The 2022 Budget for capital investment totals \$360 million. Scheduled debt principal repayments in 2022 total \$100 million for SMUD and \$11 million for SFA (detail included in SFA Budget Documentation).

2022 Budget Customer & Community Services Business Unit

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Segments & Work Processes

Customer Experience Delivery	Customer Services & Operations	Revenue Services & Operations	Community Energy Services	Commercial Development & Business Attraction
Customer Experience	Contact Center Operations	Billing Operations	Billing Operations	Commercial Development
Customer Interconnections	Digital Operations	Revenue Assurance	Contact Center Operations	Business Attraction Retention & Development
Market Development & Account Management	Customer Operations Support	Revenue Operations Support	Program Design & Delivery	
Residential & Assistance Delivery	Customer Systems & Planning	Revenue Systems & Planning	Wholesale Energy Services	

Safety & Reliability

- Adapt and continue focus on achieving zero safety incidents with more (SD-6) focus on strategies in support of hybrid and inclusive work environments
- Prioritize emotional wellness through stress and anxiety reduction (SD-6) tools and resources
- Leverage technology to ensure the physical safety and wellbeing of (SD-6) remote and hybrid employees
- Enhance operations reliability through dispersed remote workforce (SD-6)

Affordability

- Support our community through COVID-19 and economic recovery (SD-2)
- Reinstate collections with a priority on customer empathy, fiscal (SD-2) responsibility and operational excellence
- Continue to provide energy savings education to all customer (SD-2) segments through virtual and in-person audits
- Offer commercial incentives to stimulate load growth and revenue (SD-2) while reducing cost barriers to market

Organizational Agility

- Consolidate and optimize data management, reporting and (SD-10) analyses to deliver programs, products and services in an equitable way
- Capitalize on operational excellence initiatives to further improve (SD-2) internal coordination, increase efficiencies and reduce costs
- Further enhance digital operations to improve customer experience (SD-10, 11) and utilization of self-service channels
- Leverage automated tools to increase awareness and communication for our most vulnerable customers
 (SD-10, 11)
- Successfully support rollout of 2021 rate process deliverables (SD-2)

Initiatives Aligned with Strategic Direction

Environmental Leadership

- Develop and launch clean energy information tools and calculators (SD-7, 9)
- Increase participation in new and existing products and services (SD-7, 9) available to our commercial and residential customers
- Support public power clean energy initiatives by developing and delivering carbon reduction programs for CCA clients

Community Vitality

- Deliver special assistance programs through our community partners (SD-5, 13, 15) to reduce bill burdens for customers
- Leverage business attraction, retention and expansion efforts to (SD-5, 13, 15) encourage economic growth and increase jobs in the region
- Expand 2030 Zero Carbon Plan awareness by supporting our (SD-5, 15) diverse communities

Budget Summary

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Customer Experience Delivery	\$15,142	\$17,502	\$16,176	(\$1,326)	-8%
Revenue Services & Operations	28,618	32,005	31,629	(376)	-1%
Customer Services & Operations	30,812	34,449	34,296	(153)	0%
Community Energy Services	10,692	10,885	11,175	290	3%
Commercial Development & Business Attraction	1,519	1,383	1,554	172	12%
O&M Total	\$86,783	\$96,224	\$94,830	(\$1,394)	-1%
Customer Experience Delivery	9,874	10,557	7,661	(2,896)	-27%
Public Good Total	\$9,874	\$10,557	\$7,661	(\$2,896)	-27%
Revenue Services & Operations	3,967	6,884	6,619	(265)	-4%
Capital Total	\$3,967	\$6,884	\$6,619	(\$265)	-4%
Business Unit Total	\$100,624	\$113,666	\$109,110	(\$4,556)	-4%

Budget Summary (continued)

Overview

The 2022 Proposed Budget is lower than the 2021 Budget by \$4.6M or 4%.

O&M: 2022 Proposed budget is \$1.4M lower than the 2021 Budget. Our top three priorities include supporting SMUD and our customers as we recover from the economic and social impacts of COVID-19, securing the customer experience while delivering on the goals of the 2030 Zero Carbon Plan, and supporting the 2021 Rates process deliverables.

Public Good: 2022 Proposed Budget is \$2.9M less than the 2021 Budget. However, additional dollars and resources are planned for low income programs in the Zero Carbon Strategies Business Unit in alignment with the 2030 Zero Carbon Plan.

Capital: The 2022 Proposed Budget is flat to 2021 Budget.

Customer Experience Delivery Segment

Customer Experience Delivery develops and executes SMUD's Customer Experience Strategy. We leverage data analytics and customer insights to deliver high-touch positive experiences for our commercial, residential, special assistance and interconnection customers. We collaborate across SMUD to provide tools, insights, expertise and recommendations to ensure the success of SMUD's 2030 Zero Carbon Plan.

Work Processes Customer Experience Customer Interconnections Market Development & Account Management Residential & Assistance Delivery

Customer & Community Services SMUD[®] Customer Experience Delivery Segment –

O&M/Public Good

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Product Delivery Support	\$454	\$407	\$9,306	\$8,899	>999%
Product Design & Development	2,189	3,293	3,311	19	1%
Residential Market Delivery	1,356	1,620	1,235	(385)	-24%
Commercial Market Delivery	7,104	7,667	0	(7,667)	-100%
Customer Experience Excellence	1,314	1,785	0	(1,785)	-100%
Customer Interconnections	2,725	2,731	2,324	(407)	-15%
O&M Total	\$15,142	\$17,502	\$16,176	(\$1,326)	-8%
Special Assistance Delivery	\$9,874	\$10,557	\$7,661	(\$2,896)	-27%
Public Good Total	\$9,874	\$10,557	\$7,661	(\$2,896)	-27%
O&M Total	\$25,017	\$28,059	\$23,837	(\$4,223)	-15%

Customer Services & Operations Segment

Customer Operations is SMUD's frontline organization that provides customer care services, which include processing transactions, lobby operations, self-service digital operations, as well as technical support, training, and process improvements to support these operations.



Customer & Community Services SMUD^{*} Customer Services & Operations Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Contact Centers	\$24,869	\$28,265	\$28,311	\$46	0%
Self Service Operations	3,425	3,440	3,712	272	8%
Customer Operations Support	2,051	2,216	1,737	(479)	-22%
Customer Care Planning	466	527	536	9	2%
O&M Total	\$30,812	\$34,449	\$34,296	(\$153)	0%

Revenue Services & Operations Segment

Revenue Services & Operations is SMUD's frontline organization that provides services which includes billing and payments, revenue assurance, field services, as well as technical support, training, and process improvements to support these operations.

Work Processes

Billing Operations

Revenue Assurance

Revenue Operations Support

Revenue Systems & Planning

Customer & Community Services SMUD[®] Revenue Services & Operations Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Customer Payments	\$6,281	\$6,239	\$0	(\$6,239)	-100%
Field Services	4,466	4,527	0	(4,527)	-100%
Billing Operations	7,267	8,390	8,325	(64)	-1%
Revenue Assurance	6,256	7,773	19,805	12,032	155%
Revenue Systems & Planning	1,266	1,832	989	(842)	-46%
Revenue Operations Support	1,259	1,521	1,442	(79)	-5%
Loans Program	1,645	1,623	1,068	(555)	-34%
Rate Work	172	102	0	(102)	-100%
O&M Total	\$28,618	\$32,005	\$31,629	(\$376)	-1%

Revenue Services & Operations Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Purchase & Install Meters	\$3,967	\$6,884	\$6,619	(\$265)	-4%
Capital Total	\$3,967	\$6,884	\$6,619	(\$265)	-4%

Community Energy Services Segment

Community Energy Services is SMUD's retail organization that provides strategic and operational products and services in support of public power.

Work Processes

Billing Operations

Contact Center Operations

Program Design & Delivery

Wholesale Energy Services

Customer & Community Services SMUD[®] Community Energy Services Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Community Energy Services	\$10,692	\$10,885	\$11,175	\$290	3%
O&M Total	\$10,692	\$10,885	\$11,175	\$290	3%

Commercial Development & Business Attraction Segment

Commercial Development and Business Attraction assist prospective businesses and developers, coordinating all touch points within SMUD. We act as a liaison to facilitate integration with other utility services to maximize our impact in the community.

Work Processes

Commercial Development

Business Attraction Retention & Development

Customer & Community Services SMUD Commercial Development & Business Attraction Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Commercial Development	\$1,121	\$1,318	\$1,554	\$236	18%
Economic Development	393	0	0	0	0%
DWR CA Water Fix	4	64	0	(64)	-100%
O&M Total	\$1,519	\$1,383	\$1,554	\$172	12%

2022 Budget Energy Delivery & Operations Business Unit



Powering forward. Together.



Segments & Work Processes

Transmission Planning & Ops	Distribution Planning & Ops	Line Assets	Substation, Telecom & Network	Strategic Services & PMO	Environ., Safety & Real Estate	Operational Excellence
Power Systems Operations	Distribution System Operations	New Services/ Local Agency	Substation Design & Construction	SMUD Power Academy	Employee Health & Safety	Operational Excellence
Transmission Planning	Distribution Planning	Line Maintenance	Substation/ Network Maint. & Hazardous Material	Operations Project Management Office (PMO)	Environmental Services	
Scheduling & Interchange	Distribution Operations Engineering	Line Design, Construction & Replacement	Telecommuni- cations	Business Process Solutions	Real Estate Services	
Real-time Engineering & EIM Operations	Transmission & Distribution Maintenance Planning	Vegetation Management	Field Metering & Power Quality			
Energy Management Systems	Geographic Information System Operations		Civil Engineer. & Const. Mgmt. Inspection			
System Protection & Control	Electrical Design Standards		Transmission Engineering			2



Initiatives Aligned with Strategic Direction

Safety & Reliability

 Transforming and maintaining a safe and reliable grid, while also addressing future capacity and infrastructure needs

(SD-4, 9, 17)

- 2030 Zero Carbon Plan
 - Electrification
 - Solar and storage interconnection
- Foundational technology for the future:
 - Implementation of the Advanced Distribution Management System (ADMS) and Distributed Energy Resource Management System (DERMS)
- Transmission & Distribution substation additions and replacements
- Substation transformers & circuit breakers
- Cable & pole replacements
- Wildfire Mitigation Plan
- Vegetation Management
- Utilize advanced technologies to improve imagery and inspection in our maintenance processes



Initiatives Aligned with Strategic Direction

Safety & Reliability

- Keeping the Lights On with a strong commitment to employee and (SD-4, 6, 8) community safety
 - Safety for Life initiative
 - Safety Roadmap update
 - Safety Management System (SMS) implementation
 - Field Ergonomics pilot
 - SMUD Contractor Safety



Initiatives Aligned with Strategic Direction

Affordability

- Support the 2030 Clean Energy Vision and drive cost savings, (SD-2) efficiencies, and continuous improvement across the enterprise through the Operational Excellence program
- Increase field workforce efficiency & productivity through Workforce (SD-2, 4) Optimization initiative
- Create cost savings, efficiencies, and standard practices through optimization of SMUD's Operations Project Management Offices (PMO) by merging and streamlining PMO operations



Initiatives Aligned with Strategic Direction

Organizational Agility

- Continued commitment to diversity, equity and inclusion with additional career pathways to reach all parts of our community
 - Workforce Strategy
 - Experienced
 - Entry level
 - Creating new pathways to SMUD opportunities
 - Powering Careers
 - Apprenticeship programs
 - New Entry Level opportunities at SMUD
 - Partnering to drive career opportunities

(SD-8, 13, 15)



Initiatives Aligned with Strategic Direction

Environmental Leadership

1	Implementation of Sustainability Roadmap	(SD-7)
•	Landfill cap installation at North City	(SD-7, 13)
•	Integration of Environmental Justice components into California Environmental Quality Act (CEQA)	(SD-7)
•	Finalize Habitat Conservation Plan	(SD-7)
•	Station J CEQA initiation	(SD-7)
•	Continue 59th Street remediation, demolition and relocation of employees and storage	(SD-7, 13)



Initiatives Aligned with Strategic Direction

Community Vitality

- Improve Energy Delivery & Operations customer and outage (SD-4, 5, 15) communications
- Collaborate with other utilities and International Brotherhood of Electrical Workers (IBEW) to increase utility career opportunities to all parts of our community
- Support economic growth
 - Commercial Development



Budget Summary

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Transmission Planning & Ops	\$30,976	\$34,562	\$33,026	(\$1,535)	-4%
Distribution Planning & Ops	21,344	23,902	22,916	(986)	-4%
Line Assets	90,669	94,043	113,147	19,104	20%
Substation, Telecom & Network	22,146	22,984	21,281	(1,703)	-7%
Strategic Services & PMO	4,815	5,417	6,921	1,503	28%
Environmental, Real Estate & Safety	4,915	6,354	6,077	(276)	-4%
Operational Excellence	537	0	1,287	1,287	100%
O&M Total	\$175,403	\$187,260	\$204,655	\$17,394	9%
Transmission Planning & Ops	364	1,646	2,700	1,054	64%
Distribution Planning & Ops	10,225	2,395	1,780	(615)	-26%
Line Assets	86,123	111,421	104,207	(7,214)	-6%
Substation, Telecom & Network	85,841	78,492	75,403	(3,090)	-4%
Environmental, Real Estate & Safety	2,612	2,540	8,776	6,236	246%
Capital Total	\$185,166	\$196,494	\$192,866	(\$3,628)	-2%
Business Unit Total	\$360,568	\$383,754	\$397,520	\$13,766	4%



Budget Summary (continued)

Overview

The 2022 Proposed Budget is higher than the 2021 Budget by \$13.8M or 4%.

O&M: The 2022 Proposed Budget increases \$17.4M from the 2021 Budget. The is primarily due to necessary increases in vegetation management for distribution tree trimming quantities, wildfire mitigation programs (e.g., Upper American River Project (UARP)), Transmission Wildfire Mitigation, State Responsibility Area (SRA) Hardening, Transmission Line Splice X-Ray, field operations, creation of Operational Excellence team, and Workforce Optimization implementation costs.

Capital: The 2022 Proposed Budget decreases \$3.6M from the 2021 Budget. This is primarily due to completion of various large projects, which significantly reduce in 2022 Budget (such as J St. 21kV Ext C, IRP - Recon Hurley-Proctor 230kV, Station E Substation Rebuild, and IRP-AB2514 Battery Storage), along with reductions in Cable Replacement and Pole Replacements. These reductions are offset by a large increase in customer driven work and increases in various projects (e.g., North City Substation project, and the Oselot Baroque Substation).



Allocated Budget Summary (Information Only)

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Safety	\$3,820	\$3,675	\$4,082	\$407	11%
Allocated Total*	\$3,820	\$3,675	\$4,082	\$407	11%
Included in SMUD Business Unit's O&M and Capital	(3,820)	(3,675)	(4,082)	(407)	11%
Net	\$0	\$0	\$0	\$0	0%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only)

Overview

The 2022 Proposed Allocated Budget is higher than the 2021 Budget by \$0.4M or 11%.

The increase is driven by slight increases in Safely Conducted Observations Reduce Common Hazards (SCORCH) and other safety program expenses.



Transmission Planning & Operations Segment

The Transmission Planning & Operations (TP&O) segment develops short-term and long-term system plans for SMUD's transmission grid to meet load serving capability, reliability, and regulatory compliance requirements. TP&O manages and operates the assets which remotely control and monitor fuel to generation sources and SMUD's Extra High Voltage Transmission, Generation, and Gas Pipeline System to deliver electrical energy to SMUD's Distribution System. This segment also operates the Balancing Authority of Northern California (BANC) that includes transmission and generation facilities for WAPA, USBR, City of Roseville, City of Redding, Modesto Irrigation District, and the 500kV COTP, which stretches SMUD's operational control from the California-Oregon border to south of Modesto.

Work Processes
Energy Management Operations
Energy Imbalance Market
Pipeline Ops Allocation
System Protection
Transmission Planning
Grid Operations Projects



Transmission Planning & Ops Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Energy Management Operations	\$29,052	\$28,428	\$28,576	\$147	1%
Energy Imbalance Market	1,159	3,011	2,853	(158)	-5%
Pipeline Ops Allocation	(2,392)	(2,390)	(2,404)	(14)	1%
System Protection	817	998	1,078	80	8%
Transmission Planning	1,397	2,190	1,989	(200)	-9%
Grid Operations Projects	944	2,324	935	(1,390)	-60%
O&M Total	\$30,976	\$34,562	\$33,026	(\$1,535)	-4%



Transmission Planning & Ops Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Grid Operations Capital Improvements	\$0	\$534	\$1,590	\$1,056	198%
Customer Inter-Connection Projects	364	1,112	1,110	(2)	0%
Capital Total	\$364	\$1,646	\$2,700	\$1,054	64%



Transmission Planning & Ops Segment Capital Projects

Major Capital Projects - \$000s					
Project	Alignment with Strategic Direction	2022 Budget			
	SD-4 Reliability SD-5 Customer Relations	\$2,700			



Distribution Planning & Operations Segment

The Distribution Planning & Operations segment develops short-term and long-term plans for SMUD's distribution system to ensure safety, capacity, reliability and regulatory compliance requirements are achieved. It is also responsible for the safe and reliable operation of SMUD's distribution system to deliver energy to our customers.

Work Processes
Distribution System Operations
Distribution Planning
Distribution Operations Engineering
GIS Operations
T&D Maintenance Planning
Standards



Distribution Planning & Ops Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Distribution System Operations	\$8,092	\$8,454	\$7,284	(\$1,170)	-14%
Distribution System Planning	1,104	1,523	1,099	(424)	-28%
Distribution Operations Engineering	3,821	4,125	4,555	430	10%
GIS Operations	1,761	2,312	1,969	(344)	-15%
Distribution Operations Technology	917	859	1,615	756	88%
Distribution Maintenance Engineering	3,281	3,605	3,448	(157)	-4%
Standards	2,367	3,023	2,946	(77)	-3%
O&M Total	\$21,344	\$23,902	\$22,916	(\$986)	-4%



Distribution Planning & Ops Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Sub Easement & Land Purchases	\$10,225	\$2,395	\$1,780	(\$615)	-26%
Capital Total	\$10,225	\$2,395	\$1,780	(\$615)	-26%

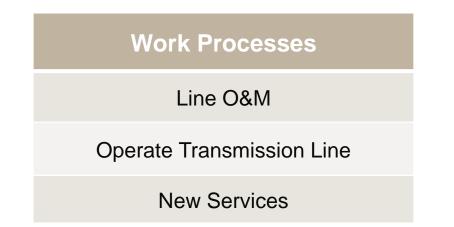
Energy Delivery & Operations () SMUD[®] Distribution Planning & Ops Segment Capital Projects

Major Capital Projects - \$000s					
Project	Alignment with Strategic Direction	2022 Budget			
Various Land Acquisitions (e.g., Folsom SOI Site #2, Rio Del Oro, Cordova Hills, and Station J Substation & Transmission Line CEQA)	SD-4 Reliability SD-5 Customer Relations	\$1,780			



Line Assets Segment

The Line Assets segment includes all activities associated with design, modification, and installation of transmission and distribution lines, wildfire hardening and vegetation management; transmission and distribution system inspection; and prioritized system maintenance and improvement. This segment also includes design and installation of residential meters, service conductors, subdivision facilities, commercial, 3rd party attachments – industrial developments, overhead and underground line extensions, outdoor lighting, and traffic signals.





Line Assets Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Grid Line Assets	\$82,486	\$84,304	\$103,023	\$18,720	22%
Operate Transmission Line	2,680	3,230	4,016	786	24%
New Services	5,502	6,509	6,107	(402)	-6%
O&M Total	\$90,669	\$94,043	\$113,147	\$19,104	20%



Line Assets Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Grid Line Assets	\$67,420	\$88,838	\$76,651	(\$12,187)	-14%
New Services	12,318	12,627	25,041	12,415	98%
Line Tools & Equip	19	96	95	(1)	-1%
Transmission Line	6,366	9,859	2,419	(7,441)	-75%
Capital Total	\$86,123	\$111,421	\$104,207	(\$7,214)	-6%



Line Assets Segment Capital Projects

Major Capital Projects - \$000s					
Project	Alignment with Strategic Direction	2022 Budget			
Line Distribution Projects Capital equipment replacement and upgrades such as: Downtown projects, Rule 16 projects, Battery Storage, Indoor Cultivation projects and Natomas 69kV line	SD-4 Reliability	\$34,980			
Cable Replacement & Rehabilitation Annual program to reduce the yearly number of primary underground cable failures which will decrease future outages, repair costs, customer issues and the quantity of poorly performing circuits.	SD-4 Reliability	\$19,910			
Pole Replacement and Reinforcement Planned Pole Program includes replacing poles that have failed a pole inspection and are not candidates for pole reinforcement.	SD-4 Reliability	\$20,110			
New Services Connections Activities associated with the connection of Commercial/Industrial & Residential customers. Includes: Subdivisions, Local Agency projects, Regional Transit and System Enhancements (e.g. Regional Transit South Line Extension, Rusch Park to I-80 project, and Reach I – American River P1)	SD-4 Reliability	\$25,060			
Transmission Line (Ongoing) Includes transmission projects such as #6U Reconductor/Eagle Construction, Hurley-Proctor 230kV project, Transmission Line Structure Replacement program, IRP-SVEC Whiterock Solar 230kV Transmission Line, and similar projects.	SD-4 Reliability	\$4,150			



Substation, Telecom & Network Segment

The Substation, Telecom & Network segment includes all activities associated with design, modification, and installation of transmission and distribution substations; network underground installation and maintenance; transmission and distribution substation system inspection; and prioritized system maintenance and improvement. This segment also includes design and installation of meters, the downtown network system, and telecommunication systems relaying critical substation information to the Power System Operations Team.

Work Processes
Design & Construction
Substation/Network Maintenance & Hazardous Material
Telecommunications
Field Metering & Power Quality
Civil Engineering & Const. Mgmt Inspection
Transmission Engineering



Substation, Telecom & Network Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Substation Design	\$15,790	\$16,167	\$14,207	(\$1,960)	-12%
Substation Civil Support	692	398	626	227	57%
Distribution Automation	44	118	122	3	3%
Substation Network	3,056	4,059	4,012	(47)	-1%
Substation Hazmat	599	428	419	(9)	-2%
Substation General Services	366	272	480	208	76%
Grid Metering	392	448	369	(79)	-18%
Storm Work	195	0	0	0	0%
Substation Telecomm	1,013	1,093	1,046	(47)	-4%
O&M Total	\$22,146	\$22,984	\$21,281	(\$1,703)	-7%



Substation, Telecom & Network Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Substation Improvements	\$65,316	\$55,455	\$53,337	(\$2,117)	-4%
Transmission Substation Improvements On-going	19,630	20,712	22,000	1,288	6%
Substation Other Projects	895	2,326	65	(2,260)	-97%
Capital Total	\$85,841	\$78,492	\$75,403	(\$3,090)	-4%



Substation, Telecom & Network Segment Capital Projects

Major Capital Projects - \$000s						
Project	Alignment with Strategic Direction	2022 Budget				
Distribution Substation Improvements / New Capacity Large substation improvements and new capacity projects, such as Oselot Baroque Substation, Franklin-Elk Grove Bank #2, Del Paso East Commerce 2nd Bank, Frienza-Albatross Substation, and Rio Del Oro Site #1 Substation. Includes Indoor Cultivation related projects	SD-4 Reliability	\$17,420				
Transmission Substation Improvements Major transmission substation projects such as Station G Substation, SVEC Whiterock Solar Substation Switchgear, Hurley Substation 230kV Bus Tie-CB, and Station H 115/21kV Substation.	SD-4 Reliability	\$47,370				
Distribution Replacements (Non-Network) Work to repair, replace or install transformers, switchgear, reclosers, capacitor banks, down line wires, air switches etc.	SD-4 Reliability	\$10,540				
Transmission Substation (Other) North City Decommission. The vast majority of North City budget is in other segments of Energy Delivery.	SD-4 Reliability	\$73				



Strategic Services & Operations PMO Segment

The Strategic Services & Operations PMO segment provides portfolio management, program and project execution, continuous business process and technology solutions. We deliver innovative solutions and provide business value by effectively managing the Operation PMO portfolio of projects and continuous improvement initiatives. We administer consistent results that reduce costs, increase efficiencies, and improve customer and stakeholder satisfaction.

The Sacramento Power Academy is a vital resource to SMUD and the community. Building skills and growing careers by providing the best training to our employees from development to analysis and delivery. The Sacramento Power Academy manages training for all Energy Delivery & Operations and Power Generation, as well as manages all skilled trades apprenticeship programs that includes the twelve apprenticeship programs that are State and/or Federally certified.

Work Processes

SMUD Power Academy

Operations PMO / Process Improvements



Strategic Services & Operations PMO Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
SMUD Power Academy	\$530	\$952	\$1,747	\$795	84%
Process Improvements	4,285	4,465	5,173	708	16%
O&M Total	\$4,815	\$5,417	\$6,921	\$1,503	28%



Environmental, Real Estate & Safety Segment

The Environmental, Real Estate & Safety Segment provides environmental compliance; environmental stewardship; employee, contractor, and public safety; and real estate/land asset management services. This segment supports SMUD's business unit needs to achieve a zeroinjury culture, a commitment to environmental leadership and the Clean Energy Vision, and value-added services.





Environmental, Real Estate & Safety Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Environmental	\$3,559	\$5,029	\$4,066	(\$963)	-19%
Real Estate	1,356	1,325	2,011	686	52%
O&M Total	\$4,915	\$6,354	\$6,077	(\$276)	-4%



Environmental, Real Estate & Safety Segment – Capital

Summar (\$000s)	•	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Environmental		\$2,912	\$2,540	\$8,776	\$6,236	246%
Real Estate	[1]	(300)	0	0	0	0%
Capital Total		\$2,612	\$2,540	\$8,776	\$6,236	246%

[1] Real Estate 2021 Forecast credit of \$300K driven by reclassification of expenses incurred in 2020 for Jackson Substation parcel rehabilitation.



Environmental, Real Estate & Safety Segment Capital Projects

Major Capital Projects - \$000s				
Project	Alignment with Strategic Direction	2022 Budget		
Environmental Remediation: Developing and implementing four soil/groundwater investigation and remediation projects under agency oversight within Sacramento County, with the majority of the spending for the North City Decommissioning	SD-7 Environmental leadership	\$8,396		
Habitat Conservation Plan (HCP): Work with an interagency review team to complete an HCP and continue the CEQA/NEPA review process for the HCP.	SD-7 Environmental leadership	\$380		



Environmental, Real Estate & Safety Segment – Allocated (Information Only)

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Safety Services	\$3,820	\$3,675	\$4,082	\$407	11%
Allocated Total*	\$3,820	\$3,675	\$4,082	\$407	11%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (provided as informational only)



Operational Excellence Segment

The Operational Excellence program supports the Clean Energy Vision by developing and managing a framework to reduce cost, increase efficiency and drive a culture of continuous improvement across the company.

Work Processes

Operational Excellence



Operational Excellence Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Operational Excellence	\$537	\$0	\$1,287	\$1,287	100%
O&M Total	\$537	\$0	\$1,287	\$1,287	100%

2022 Budget Zero Carbon Energy Solutions Business Unit

Powering forward. Together.





Segments & Work Processes

Power Generation	Advanced Energy Solutions	Commodity, Procurement & Sales	New Business Development
Hydro Generation	Research & Development	System Economic Dispatch for Load	New Business Development
License Implementation	Program Planning & Support	Energy Trading	California Mobility Center
Thermal Generation	Residential Program Implementation	Power / Gas Contracts & Reserves	
Renewable Generation	Commercial Program Implementation	Energy Imbalance Market	
Gas Pipeline		Energy Settlements	
Regulatory Compliance		Optimize Energy Operations Assets	
Rancho Seco Fuel Storage			
Project Development			



Initiatives Aligned with Strategic Direction

Safety & Reliability

 Maintenance on hydro generation assets 	(SD-4)
 Thermal plant maintenance & overhauls 	(SD-4)
 Fire system upgrades at Loon Lake 	(SD-4)
 Control upgrades at multiple hydro facilities 	(SD-4)
 Increase grid monitoring and control capabilities Continue co-development of Distributed Energy Resources Management System (DERMS) Complete dynamic transmission line ratings pilot 	(SD-4, 9, 10)

Test smart inverters



Initiatives Aligned with Strategic Direction

Affordability

- Pursue new net revenue opportunities
 - Leverage existing partnerships and new opportunities
- Power Generation operational excellence measures
 - Camino Unit 1 generator rehabilitation project
 - Campbell steam turbine overhaul deferral

(SD-19)

(SD-2)



Initiatives Aligned with Strategic Direction

Organizational Agility

- Ensure our processes are aligned with Operational Excellence
 - Implementation of the 2030 Zero Carbon Plan Project Management Office
 - Restructure Research & Development to align with the Zero Carbon Plan

(SD-3, 10)



Initiatives Aligned with Strategic Direction

Environmental Leadership

- Building Energy Efficiency and Electrification
 - Consolidate and optimize energy efficiency and building electrification programs to maximize carbon reduction
 - Expand and launch additional program offerings such as Home Energy/Carbon Reports, All Electric Smart Homes, and Express Heat Pump Water Heater replacement
- Energy Storage
 - Launch new programs and incentives to increase uptake of residential battery energy storage systems
 - Investigate additional distributed and long-term duration storage opportunities

(SD-9)

(SD-7, 9, 10)



Initiatives Aligned with Strategic Direction

Environmental Leadership

- Load flexibility
 - Implement and launch new Virtual Power Plant (VPP) customer programs
 - Conduct research to develop estimates of grid and customer infrastructure impacts from electrification and plan for mitigation measures to accelerate growth
- Transportation Electrification
 - Expand programs and incentive offerings to support commercial and residential electric vehicles adoption
 - Expand eMobility hubs to increase access to zero emission transportation options in under-resourced communities

(SD-4, 7, 9, 10)

(SD-7, 9, 10)



Initiatives Aligned with Strategic Direction

Environmental Leadership

(SD-7, 9) Green Pricing & Carbon Reduction Implement enhanced options for voluntary renewable pricing and carbon free energy programs (SD-10) Demonstrate the potential to create habitat to sequester carbon for responsible power generation and land development (SD-7, 10) Thermal Transition Investigate and assess alternative clean fuel options Complete technical evaluation of options for Long Duration Energy Storage (LDES), Carbon Capture, as well as retirement determinations for McClellan and Campbell Power Plants (SD-2, 4, 7, Renewable Project Development 9) Solano Wind Solar and battery storage projects



Initiatives Aligned with Strategic Direction

Community Vitality

- Upper American River Project (UARP) License Implementation (SD-5) Projects
 - Crystal Basin Recreational Facilities upgrades



Budget Summary

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Power Generation	\$98,456	\$104,873	\$106,581	\$1,708	2%
Advanced Energy Solutions	18,435	22,372	36,446	14,074	63%
Commodity, Procurement & Sales	13,311	14,370	14,139	(231)	-2%
New Business Development	2,070	2,490	1,969	(521)	-21%
O&M Total	\$132,272	\$144,105	\$159,135	\$15,030	10%
Revenue	(26)	(25)	(25)	0	0%
O&M (Net)	\$132,246	\$144,080	\$159,110	\$15,030	10%
Advanced Energy Solutions	35,179	53,062	51,776	(1,286)	-2%
Public Good Total	\$35,179	\$53,062	\$51,776	(\$1,286)	-2%
JPA Interest Expense	\$5,332	\$5,332	\$4,773	(\$559)	-10%
Power Generation	65,331	79,069	105,309	26,240	33%
Advanced Energy Solutions	139	667	96	(571)	-86%
Commodity, Procurement & Sales	2,599	3,000	3,000	0	0%
Capital Total	\$68,068	\$82,736	\$108,405	\$25,669	31%
Revenue	(587)	0	(1,106)	(1,106)	100%
Capital (Net)	\$67,481	\$82,736	\$107,298	\$24,563	30%
Business Unit Total	\$240,238	\$285,209	\$322,958	\$37,748	13%



Budget Summary (continued)

Overview

The 2022 Proposed Budget is higher than the 2021 Budget by \$37.7M or 13%.

O&M: Net increase driven by Transportation Electrification, Load Flexibility and Green Pricing programs in support of the 2030 Zero Carbon Plan, and increase in maintenance costs for Solano Wind 2 & 3. This is offset by fewer New Business Development projects planned.

Public Good: Net decrease driven by allocation of budget to O&M Advanced Energy Solutions programs in support of the 2030 Zero Carbon Plan.

Capital: Net increase driven by the Solano Wind 4 and Solar Projects in support of the 2030 Zero Carbon Plan.



Power Generation Segment

Power Generation consists of the physical assets which provide natural gas and generate electrical power from hydro, thermal and renewable generation power sources and the employees who design, construct, operate, maintain and manage those physical assets. Also included in the Power Generation segment is decommissioning, which is responsible for the monitoring of long-term fuel storage facilities.

Work Processes				
Hydro Generation	Gas Pipeline			
License Implementation	Regulatory Compliance			
Thermal Generation	Rancho Seco Fuel Storage			
Renewable Generation	Project Development			



Power Generation Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Power Generation	\$88,868	\$95,879	\$96,512	\$634	1%
Thermal Non-baseload Overhaul	9,588	8,994	10,069	1,075	12%
O&M Total	\$98,456	\$104,873	\$106,581	\$1,708	2%



Thermal O&M by Plant

Generation Plant (\$000s)	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Carson Cogeneration	\$7,153	\$8,006	\$853	12%
Procter & Gamble	15,650	10,547	(5,103)	-33%
Cosumnes	18,131	23,887	5,756	32%
Campbell Soup / McClellan	10,693	11,033	340	3%
TOTAL Thermal O&M (excluding Fuel Expenses)	\$51,627	\$53,473	\$1,846	4%

Overview

The 2022 Proposed Budget is higher than the 2021 Budget by \$1.8M or 4%.

The 2022 Proposed Budget is higher due to scheduled major maintenance and engine overhaul expenses at Cosumnes Power Plant. This increase is partially offset by reductions in maintenance and engine overhaul expenses at Procter & Gamble Power Plant.



Power Generation Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Hydro Generation (includes License Implementation)	\$41,833	\$55,770	\$58,137	\$2,367	4%
Thermal Generation	4,876	1,362	19,631	18,269	>999%
Renewable Generation	11,426	14,319	19,553	5,233	37%
Gas Pipeline	432	866	1,099	233	27%
Rancho Seco	6,504	6,751	6,889	138	2%
Capital Total	\$65,072	\$79,069	\$105,309	\$26,240	33%
Revenue	(328)	0	(1,106)	(1,106)	100%
Capital (Net)	\$64,744	\$79,069	\$104,203	\$25,134	32%



Power Generation Segment Capital Projects

Major Capital Projects - \$000s						
Project	Alignment with Strategic Direction	2022 Budget				
Hydro Other Capital Projects Annual Regulatory Fees associated with the UARP License (USFS, BLM, EDCo, etc.), Camino Discharge Tube & Rehab, Gerle Canal Relining Project, Loon Lake Fire Protection, Union Valley T2 Replacement & 69kV Switchyard Rehabilitation, UARP Unit Breakers & Switchers Upgrade, and Robbs Trash Rake.	SD-2 Competitive Rates SD-4 Reliability	\$12,509				
Hydro License Implementation Recreation Plan Multi-year project to implement the renewal of the Federal Energy Regulatory Commission (FERC) license; includes Recreation Plan projects such as Union Valley Bike Trail and Union Valley Dam, Loon Lake Reservoir Recreational Upgrades and Ice House Reservoir upgrades.	SD-5 Customer Relations	\$32,356				
Solano Wind Solano Wind Phase 4 project to develop the Collinsville/Roberts properties and repower Phase 1 of SMUD's Solano Wind Project.	SD-2 Competitive Rates SD-4 Reliability	\$14,001				
Rancho Seco Decommissioning Used fuel management of the Rancho Seco Independent Spent Fuel Storage Installation (ISFSI) in accordance with Nuclear Regulatory Commission (NRC) regulation and SMUD specific license requirements.	SD-4 Reliability	\$6,163				
Renewable Capital Includes 2030 Energy Plan Solar Projects (McClellan, Laguna, and Placer County Acres). Also, Solano 2 Repower Assessment.	SD-2 Competitive Rates SD-4 Reliability SD-7 Environmental Leadership	\$4,122				
JPA Thermal Improvements Central Valley Financing Authority (CVFA) SCR Nox/catalyst and Turbine CTG1-Engine 185 and SMUD Financing Authority (SFA) Access Platform Improvements.	SD-2 Competitive Rates SD-4 Reliability	\$19,631				
Local Gas Pipeline Improvements and testing of the local gas pipeline. Includes Fruitridge CP-ETS Test Station and Carson Re-Route to Blowdown Stack	SD-4 Reliability SD-6 Safety	\$940				



Advanced Energy Solutions Segment

Advanced Energy Solutions (AES) is responsible for research and development, as well as planning and implementation delivery of residential and commercial programs and products in support of SMUD's 2030 Zero Carbon Plan goals. Areas of focus include building energy efficiency and electrification, green pricing, electric vehicles, load flexibility, energy storage, and thermal transition.

Work ProcessesResearch & DevelopmentProgram Planning & SupportResidential Program ImplementationCommercial Program Implementation



Advanced Energy Solutions Segment – O&M/Public Good

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Transportation Electrification	\$7,263	\$10,656	\$19,295	\$8,639	81%
Green Programs	5,987	6,129	9,721	3,592	59%
Load Management Programs	1,361	1,406	5,265	3,858	274%
Business Process Support	1,068	1,137	0	(1,137)	-100%
Market & Product Development	989	1,218	2,165	947	78%
Sacramento Shade	1,507	1,530	0	(1,530)	-100%
Energy Storage	193	281	0	(281)	-100%
Renewable Portfolio Standards	70	14	0	(14)	-100%
O&M Total	\$18,435	\$22,372	\$36,446	\$14,074	63%



Advanced Energy Solutions Segment – O&M/Public Good (continued)

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Customer Energy Efficiency	\$12,267	\$14,714	\$16,755	\$2,040	14%
Building Electrification	13,491	17,813	22,707	4,895	27%
Research & Development	9,411	20,511	12,314	(8,197)	-40%
Other Public Good	10	24	0	(24)	-100%
Public Good Total	\$35,179	\$53,062	\$51,776	(\$1,286)	-2%
O&M Total	\$53,614	\$75,434	\$88,222	\$12,788	17%

Zero Carbon Energy Solutions () SMUD^{*}



Advanced Energy Solutions Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
R&D Projects	\$139	\$667	\$96	(\$571)	-86%
Capital Total	\$139	\$667	\$96	(\$571)	-86%



Advanced Energy Solutions Segment Capital Projects

Major Capital Projects - \$000s					
Project	Alignment with Strategic Direction	2022 Budget			
The use of native species/politicators to reduce the operational costs associated with	SD-7 Environmental Leadership SD-10 Innovation	\$96			



Commodity, Procurement & Sales Segment

Commodity Procurement and Sales is responsible for the development, procurement and administration of long, medium and short-term power, electric transmission and natural gas contracts. This segment also conducts the associated day-to-day management of and trading activities for resources required to optimize renewable contracts and maintain adequate, cost-effective supplies of natural gas to thermal generation units as well as electrical energy to SMUD customers. Finally, this segment participates in various regulatory forums to protect SMUD's resources and interests.

Work Processes			
System Economic Dispatch for Load	Energy Imbalance Market		
Energy Trading	Manage Commodity Risk		
Power / Gas Contracts & Reserves	Optimize Energy Operations Assets		

Zero Carbon Energy Solutions () SMUD^{*}



Commodity, Procurement & Sales Segment – **O**&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Administer Energy Contracts	\$2,456	\$2,318	\$2,489	\$172	7%
Settlements Electric Power	3,085	3,203	3,045	(158)	-5%
Trade Power	7,470	8,496	8,258	(238)	-3%
Resource Optimization	0	93	93	(0)	0%
Procure/Sell Natural Gas Commodity	2,270	2,995	2,523	(473)	-16%
Procure/Sell Natural Gas Costs Allocated to JPA's	(2,215)	(2,995)	(2,523)	473	16%
NCGA 1 Admin & General	84	100	96	(3)	-3%
NCEA Admin & General	162	160	158	(3)	-2%
O&M Total	\$13,311	\$14,370	\$14,139	(\$231)	-2%
Revenue	(26)	(25)	(25)	0	0%
O&M (Net)	\$13,285	\$14,345	\$14,114	(\$231)	-2%

Zero Carbon Energy Solutions () SMUD^{*}



Commodity, Procurement & Sales Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Fuel Supply Improvements	\$2,599	\$3,000	\$3,000	\$0	0%
Capital Total	\$2,599	\$3,000	\$3,000	\$0	0%

Zero Carbon Energy Solutions (Carbon Energy Solutions



Commodity, Procurement & Sales Segment Capital Projects

Major Capital Projects - \$000s				
Project Alignment with Strategic 2 Direction Bu				
Fuel Supply Improvements: Capital improvements and modifications to SMUD's portion of PG&E lines (300/401).	SD-2 Competitive Rates SD-4 Reliability	\$3,000		



New Business Development Segment

The New Business Development Segment provides strategy, business planning and commercialization services for substantial new net revenue generation and innovation opportunities across the enterprise. We do this by providing institutional business processes and competencies necessary to guide SMUD's optimal use of its assets and expertise in order to generate new net revenue. The program also provides for an enterprise-wide view of all new net revenue opportunities so that the Executive Team has better visibility into where SMUD is committing its resources and can optimize potential for revenue generation.

Work Processes

New Business Development

Zero Carbon Energy Solutions () SMUD^{*}



New Business Development Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
New Business Dev Planning	\$381	\$1,228	\$1,850	\$622	51%
New Business Dev Projects	1,689	1,263	119	(1,144)	-91%
O&M Total	\$2,070	\$2,490	\$1,969	(\$521)	-21%

2022 Budget Enterprise Strategy Business Unit

Powering forward. Together.



Enterprise Strategy

Segments & Work Processes



Resource Strategy	Customer & Grid Strategy	Revenue Strategy	Enterprise Prioritization
Strategic Resource Planning	Customer Strategy	Pricing	Enterprise Prioritization
Market Strategy	Grid Strategy	Load Research & Forecasting	
	DER Strategy		
	Strategy Planning		
	Evaluation, Measurement & Verification		

Enterprise Strategy

Initiatives Aligned with Strategic Direction

Safety & Reliability

- Maintain a ZERO injury culture (SD-6)
 Ensure safe and reliable delivery of electricity to our customers

 Plan clean resources needed to transition away from our natural gas plants
 Develop market strategy that supports our clean future

 Research reliable and safe alternatives to our natural gas plants

 Emerging clean grid scale as well as distributed and customer resources

 Engage Distributed Energy Resources (DERs)

 Partner with our customers and leverage their investments and approacted devices
 - connected devices





Initiatives Aligned with Strategic Direction

Affordability

- Implement revenue strategy aligned with 2030 Zero Carbon Plan
 - Implement new Solar + Storage Rate, Critical Peak Pricing and Virtual Power Plant pricing and incentives
 - Develop specialized rates to support strategic objectives, including Electric Vehicle (EV) and microgrids
- Minimize the cost of the 2030 Zero Carbon Plan
 - Pursue competitive solicitations for renewables and storage
 - Increase operational efficiencies
 - Promote load growth to bring new revenue

(SD-2, 7, 10)

(SD-2, 3, 5)

Enterprise Strategy



Initiatives Aligned with Strategic Direction

Organizational Agility

- Implement Enterprise Prioritization to ensure alignment and focus (SD-2, 10, 17)
 the organization on the top priorities for SMUD
- Align future pricing to support the 2030 Zero Carbon Plan

(SD-2, 7, 9, 10)

- Expand and refine evaluation efforts to understand performance and (SD-2, 7, 10) adjust strategy
- Facilitate rapid discovery and evaluation of innovative ideas through (SD-2, 10) IdeaHub

Initiatives Aligned with Strategic Direction

Environmental Leadership

- Drive aggressive Greenhouse Gas (GHG) reductions
 - Expand renewables and battery storage while maximizing local benefits
 - Explore and expand decarbonization offerings to support underresourced communities
 - Research and evaluate emerging technologies for promising solutions
- Electrify Sacramento
 - Expand residential and commercial electrification offerings supporting aggressive building and transportation GHG reductions
 - Increase focus on electric vehicle charging infrastructure with a plan to offer support for growth in Medium and Heavy Duty Zero Emissions Vehicles



(SD-7, 9)

(SD-7, 9, 10)



Initiatives Aligned with Strategic Direction

Community Vitality

- Ensure no community left behind
 - Develop strategy for Low & Moderate Income (LMI) and underresourced communities to increase engagement and strengthen linkage with the 2030 Zero Carbon Plan
 - Utilize the 2030 Zero Carbon Plan to advance workforce development and job pipelines to support regional economic development and expand opportunities for under-resourced communities
- Bring the benefits of the 2030 Zero Carbon Plan to under-resourced (SD-5, 7, 9, 13)
 - Implement solutions to enable thermal plant retirements
 - Implement local solar and storage solutions that provide both customer and community benefits, including Virtual Solar
 - Improve local air quality within under-resourced communities through increased building and transportation electrification

(SD-5, 13, 15)

Enterprise Strategy



Budget Summary

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Resource Strategy	\$4,978	\$3,370	\$4,889	\$1,520	45%
Customer & Grid Strategy	3,396	3,476	5,486	2,010	58%
Revenue Strategy	4,323	5,097	4,286	(811)	-16%
Enterprise Prioritization	91	0	2,200	2,200	100%
O&M Total	\$12,788	\$11,943	\$16,861	\$4,919	41%
Customer & Grid Strategy	447	627	609	(18)	-3%
Public Good Total	\$447	\$627	\$609	(\$18)	-3%
Business Unit Total	\$13,235	\$12,570	\$17,470	\$4,900	39%

Overview

The 2022 Proposed Budget is higher than the 2021 Budget by \$4.9M or 39%.

O&M: Net increase driven by the formation of new business segments (Market Strategy within the Resource Strategy segment & Enterprise Prioritization) to support the Clean Energy Vision, as well as new organizational goals and priorities. This includes work on Climate Change Strategy, DER Strategy and additional resources needed for Customer & Grid Strategy.

Public Good: Slight net decrease driven by fewer measurement and valuation efforts planned.



Resource Strategy Segment

Resource Strategy provides the organization with strategic, long-term integrated resource planning and market strategy to help SMUD achieve our long-term greenhouse gas goals, meet all state resource and environmental related mandates, expand renewable generation and maintain a reliable electric system at reasonable rates.

Work Processes

Strategic Resource Planning

Market Strategy



Resource Strategy Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Forecasting & Economic Analysis	\$2,710	\$3,370	\$3,743	\$373	11%
Strategic Planning	2,173	0	0	0	0%
Market Strategy	96	0	1,146	1,146	100%
O&M Total	\$4,978	\$3,370	\$4,889	\$1,520	45%



Customer & Grid Strategy Segment

Customer & Grid Strategy is responsible for the development of the strategic roadmap for distributed energy resources, the research and demonstration of innovative and emerging technologies, and the coordination of their execution. This includes developing and launching pilots to determine feasibility, infrastructure and resource investments at scale; developing business cases and ROI for integration into production; and working with key stakeholders to transition to implementation.

Work Processes

Customer Strategy

Grid Strategy

DER Strategy

Strategic Planning

Evaluation, Measurement & Verification



Customer & Grid Strategy Segment – O&M/Public Good

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
DER Planning	\$2,987	\$2,885	\$3,521	\$636	22%
DER Projects	0	64	0	(64)	-100%
Strategic Planning	410	527	1,965	1,438	273%
O&M Total	\$3,396	\$3,476	\$5,486	\$2,010	58%
Strategic Planning	447	627	609	(18)	-3%
Public Good Total	\$447	\$627	\$609	(\$18)	-3%
O&M Total	\$3,844	\$4,103	\$6,095	\$1,992	49%



Revenue Strategy Segment

The Revenue Strategy segment is responsible for development of customer pricing of retail energy and load forecasting. Pricing includes development of a rates roadmap, costing and marginal cost studies, rates reports, public rate proceedings, rate implementation support, interpretation of rates and rules, revenue forecasts and analysis of rate impacts. Load Forecasting includes research of customer class energy use, and development of system energy, sales energy and customer forecasts used for budgeting and planning by various departments. The team also maintains a data analytics database used across SMUD, as well as completes a variety of other studies and regulatory filing reports.





Revenue Strategy Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Pricing	\$2,195	\$2,773	\$2,121	(\$652)	-24%
Load Research & Forecasting	2,128	2,324	2,165	(159)	-7%
O&M Total	\$4,323	\$5,097	\$4,286	(\$811)	-16%



Enterprise Prioritization Segment

Enterprise Prioritization helps to identify and facilitate strategic decisions that have a material impact on our success in meeting our long-term strategic goals of Zero Carbon, World-Class Reliability, Affordable Rates, and Inclusion. The team supports enterprise-wide planning and strategy by providing a coordinated process and methodologies for prioritizing projects and programs across all business areas. The team works closely with business leaders across SMUD and the executive team.

Work Processes

Enterprise Prioritization



Enterprise Prioritization Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Enterprise Prioritization	\$91	\$0	\$2,200	\$2,200	100%
O&M Total	\$91	\$0	\$2,200	\$2,200	100%

2022 Budget Workforce, Diversity & Inclusion Business Unit

Powering forward. Together.





Segments & Work Processes

People Services & Strategies	Diversity, Equity & Inclusion	Sustainable Communities
Career Development & Learning	Enterprise DE&I Strategy Management & Monitoring	Sustainable Communities Partnerships & Shine Award
Employee & Labor Relations	DE&I Initiatives, Programs & Education	Economic Development and SEED
Enterprise Change & Culture	DE&I Data Management, Analysis & Reporting	Community Education & Technology Center
Talent Management		Regional Workforce Development
Total Rewards		
Strategic Planning, Performance & Analytics		

Initiatives Aligned with Strategic Direction

<u>Affordability</u>

- Community Based 2030 Zero Carbon Plan Electrification Pilots
 - Develop comprehensive custom education toolkits to help communities access SMUD programs to reduce their energy bill while making zero carbon related improvements
- Sustainable Community Partnerships
 - Establish multi-year partnerships with local non-profits to equitably provide resource support to underserved communities

(SD-2)

(SD-2)

Initiatives Aligned with Strategic Direction

Organizational Agility

(SD-8) Diversity, Equity & Inclusion Strategy Finalize tactics and initiatives to achieve strategic goals Monitor and report status of key measures Produce annual diversity, equity and inclusion report (SD-8) Diversity, Equity, Inclusion & Belonging Advisory Council Launch SMUD's inaugural DEI&B Advisory Council Support council member onboarding and council operations (SD-8) Diversity, Equity & Inclusion Audit of Policy and Procedures Procure outside expertise to guide assessment of human resources policy, programs, and processes Develop internal capability to conduct diversity, equity & inclusion audits



Initiatives Aligned with Strategic Direction

Organizational Agility

- Talent Pipeline
 - Embed purposeful, dedicated outreach efforts in talent acquisition strategies
- ent

(SD-8, 13,

15)

- Conduct a deeper reach within the community to improve representation of historically underrepresented populations
- Implement the Powering Careers program to build a pipeline for under-resourced communities to enter skilled trades at SMUD and other industry partners in our region
- Regional Diverse and Equitable Green Job Workforce Development (SD-8) Pipeline
 - Develop diverse job training pathways, partnerships and curriculum (i.e., Energy Pathways, California Conservation Corps, Energy Corps, California Mobility Center, Grid Alternatives, Energy Jobs Summit, and Job Training Centers)

Initiatives Aligned with Strategic Direction

Organizational Agility

- Talent Technology Transformation (T3)
 - Initiate the Talent Technology Transformation project implementation
 - Enhance applicant and employee experience, improve state of the human resources technology ecosystem, and improve data-driven decision-making for SMUD's human resources processes and policies
- Workforce Demographics
 - Maintain workforce demographics dashboard and enhance data elements and features
 - Conduct analysis and provide reports in response to data queries
 - Establish evidence of diversity, equity & inclusion

(SD-8, 10)





Initiatives Aligned with Strategic Direction

Organizational Agility

- Workforce Agility
 - Address risks to workforce agility through succession planning and strategic workforce planning programs
 - Give succession planning emphasis to critical roles and bring a DE&I lens to review and revise the program to support efforts to increase workforce diversity
 - Evaluate and expand the reach of existing leadership development programs and maintain organization-wide mentoring program
- Total Rewards
 - Evaluate Total Rewards benefit offerings including exploring additional adaptive benefits that meet the needs of SMUD's diverse workforce
- Employee Engagement
 - Coach and support leaders at all levels in taking meaningful action in response to employee engagement survey results that supports SMUD as a great place to work for all

(SD-8, 10)

(SD-8)



Initiatives Aligned with Strategic Direction

Organizational Agility

- Labor Relations
 - Implement successor Memorandums of Understanding (MOUs) with International Brotherhood of Electrical Workers (IBEW) and Organization of SMUD Employees (OSE)
 - Provide education to SMUD leaders on negotiated changes
 - Negotiate a new MOU for the Public Safety Officers Association (PSOA) bargaining unit before current labor contract expires on December 31, 2022
- Child Development Center
 - Open a multi-employer child development center in conjunction with California State University, Sacramento and University of California, Davis Health to help attract and retain the region's top talent, as well as address the need for childcare in Sacramento

(SD-12)

(SD-8, 10)



Initiatives Aligned with Strategic Direction

Environmental Leadership

- Sustainable Communities Resource Priorities Mapping and Metrics (SD-7)
 - Provide updated and enhanced mapping to address environmental justice, climate change, and equity-related impacts on SMUD customers and activities
- Equitable Electric Vehicle (EV) Partnerships
 - Development of EV education, usage, purchase, charging installs, and hub development in under-resourced communities
 - Example: EV school curriculum, Clean Cars for All, Prove It Campaign, Del Paso and Arden EV Hubs

Initiatives Aligned with Strategic Direction

Environmental Leadership

- Community Education Residential and Commercial
 - Promote 2030 Zero Carbon Plan goals through in-person and online classes and educational content for commercial and residential customers
- Science Technology Engineering Math (STEM) Education
 - Provide training, tours, online engagement, competitions, classroom visits, and engaging activities for students and educators to reinforce learning about climate change and energy efficiency

(SD-9)



Initiatives Aligned with Strategic Direction

Community Vitality

- Leave No Community Behind
 - Enhance existing equity index and resource priority mapping with focus on strengthening under-resourced communities
 - Work with Electric Power Research Institute (EPRI) and Smart Electric Power Alliance (SEPA) to develop industry standard for equity in electrification and apply to evaluation of new and existing SMUD programs and incentives
- Small Business Support in Under-Resourced Communities
 - Improve support to help small businesses in under-resourced communities adopt carbon zero practices and innovate to spur inclusive economic development

(SD-5, 13)

(SD-13)

Workforce, Diversity & Inclusion S Budget Summary

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
People Services & Strategies	\$1,062	\$947	\$1,516	\$570	60%
Sustainable Community Initiatives	4,349	6,230	6,049	(181)	-3%
O&M Total	\$5,410	\$7,177	\$7,566	\$389	5%
Sustainable Community Initiatives	1,544	1,676	1,615	(61)	-4%
Public Good Total	\$1,544	\$1,676	\$1,615	(\$61)	-4%
Business Unit Total	\$6,954	\$8,854	\$9,181	\$328	4%

Overview

2022 Proposed Budget is higher than the 2021 Budget by \$0.3M or 4%.

O&M: People Services & Strategies is over due to inclusion of the High School Internship Program and 4 additional disability recruitment employees (both were removed in 2021 Budget). Sustainable Communities is under due to a change in charging practices with no net impact to SMUD overall.

Public Good: Sustainable Communities is under due to a change in charging practices with no net impact to SMUD overall.

Allocated Budget Summary (Information Only)

Segment (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
People Services & Strategies	\$10,597	\$11,433	\$11,527	\$94	1%
Diversity, Equity & Inclusion	702	898	1,697	799	89%
Allocated Total*	\$11,299	\$12,332	\$13,224	\$892	7%
Included in SMUD Business Units O&M and Capital	(11,299)	(12,332)	(13,224)	(892)	7%
Net	\$0	\$0	\$0	\$0	0%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only).

Overview

2022 Proposed Allocated Budget is higher than the 2021 Budget by \$0.9M or 7%.

People Services & Strategies is over due to cost center overhead charge increases driven by a change in charging practices partially offset by staff reductions due to restructuring. Diversity, Equity & Inclusion (DE&I) is over due to addition of 3 headcount and additional non-labor budget to support DE&I work.

People Services & Strategies Segment

The People Services & Strategies Segment provides services, programs and proactive solutions for SMUD's recruiting, benefits, performance, policies, employee relations and wellness programs to create an inclusive environment where SMUD employees thrive and do their best.



People Services & Strategies Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
People Services & Strategies	\$1,062	\$947	\$1,516	\$570	60%
O&M Total	\$1,062	\$947	\$1,516	\$570	60%

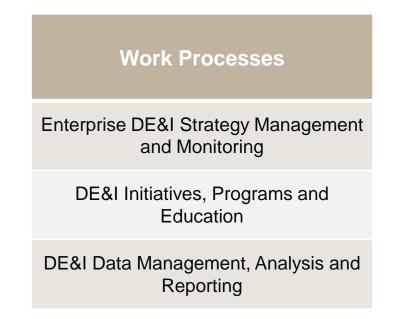
People Services & Strategies Segment – Allocated (Information Only)

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Human Resources	\$6,717	\$7,496	\$6,440	(\$1,056)	-14%
Organizational Effectiveness	3,880	3,938	5,087	1,149	29%
Allocated Total*	\$10,597	\$11,433	\$11,527	\$94	1%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only).

Diversity, Equity & Inclusion Segment

The Diversity, Equity and Inclusion segment serves as a catalyst for change focused on embedding diversity, equity and inclusion into all of SMUD's operations. The segment develops and implements strategies, initiatives, and programs to establish SMUD as a diverse and inclusive employer, and position SMUD as a key player in the community to achieve equity for those it serves.



Workforce, Diversity & Inclusion SMUD Diversity, Equity & Inclusion Segment – Allocated (Information Only)

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Diversity, Equity & Inclusion	\$702	\$898	\$1,697	\$799	89%
Allocated Total*	\$702	\$898	\$1,697	\$799	89%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only).

Sustainable Communities Segment

Sustainable Communities is committed to building thriving and equitable neighborhood outcomes through continued strategic partnerships, sponsorships, education, outreach and support for small business. We see ourselves as a convener both internally and externally, focused on leveraging collective impact. By using data to target disparity gaps we work with internal and external partners to execute on SMUD's mission to deliver energy, health, housing, transportation, education, workforce, and economic development solutions to ensure that all communities can truly have the best quality of life in our region.

Work Processes

Sustainable Communities Partnerships and Shine

Economic Development and SEED

Community Education and Technology Center

Regional Work Force Development

Sustainable Communities Segment – O&M/Public Good

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Sustainable Community Strategies	\$4,349	\$6,230	\$6,049	(\$181)	-3%
O&M Total	\$4,349	\$6,230	\$6,049	(\$181)	-3%
Community Value	434	450	450	\$0	0%
Community Education	1,110	1,226	1,165	(61)	-5%
Public Good Total	\$1,544	\$1,676	\$1,615	(\$61)	-4%
O&M Total	\$5,893	\$7,907	\$7,665	(\$242)	-3%

2022 Budget Technology & Innovation Business Unit

Powering forward. Together.







Strategy & Innovation	Strategic Initiatives	Infrastructure & Operations	Cybersecurity	Applications
Innovation	Project Delivery	Project Delivery	Cyber Governance, Risk & Compliance	Project Delivery
Project Management	Operational Support & Problem Resolution	Operational Support & Problem Resolution	CIP Compliance	Operational Support & Problem Resolution
Business Relationship Management	Contracts & License Management	Operations Architecture	Cyber & Privacy Program	Technology Enhancements
Quality Assurance	Analytics & Data Governance	Planning & Assessment	Threat Assessment & Response	Planning & Assessment
	Enterprise Architecture	Compliance	System Security Operations	
	Technology Enhancements		Incident Response & Emergency Operations	
	Planning & Assessment			



Initiatives Aligned with Strategic Direction

Safety and Reliability

•	Implement Safety Management System to better analyze and show	(SD-6, 8, 17)
	results of SMUD's safety culture	

- Install video monitoring systems to more locations in the Upper (SD-6, 8, 17) American River Project (UARP) and at Solano Wind Farm, providing real-time remote assessments of site conditions
- Replace existing Perimeter Intrusion Detection Systems (PIDS) at (SD-6, 8, 17) SMUD substation sites
- Ensure SMUD's applications and technology infrastructure are (SD-6, 8, 17) continually available, reliable, secure and in compliance
- Increase capacity and reliability of our fiber network (SD-6, 8, 17)



Initiatives Aligned with Strategic Direction

Safety and Reliability

- Manage enterprise risk across cybersecurity, physical security, (SD-16, 17) customer privacy and records management
- Continue to mature our cybersecurity best practices, focusing on the National Institute of Standards and Technology (NIST) framework for Risk and Physical security
- Collaborate across SMUD business units for the 2022 North (SD-16, 17) American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) compliance audit, conducted by the Western Electricity Coordinating Council (WECC)
- Focus on recruitment and retention of Cybersecurity staff (SD-16, 17)



Initiatives Aligned with Strategic Direction

Affordability

- Implement new customer self-service platform initially focused on commercial customers through Joint Collaboration Agreement (Innovation Generator)
 (SD-2, 5, 10, 19)
- Optimize technology infrastructure spending through Enterprise Architecture, Application Rationalization and new software license tracking technology
 (SD-2, 5, 10, 19)
- Improve SMUD's customer experience deliveries by leveraging the SAP C/4 HANA platform – Customer 360 view
 (SD-2, 5, 10, 19)
- Program and implement new rates to support the 2030 Clean (SD-2, 5, 10, 19)
 Energy Vision (Critical Peak Pricing, Successor Net Energy Metering, Electric Vehicle Charging as a Service)



Initiatives Aligned with Strategic Direction

Affordability

- Integrated Project Management Office focused on technology and (SD-2, 4) innovation
 - Centralized project management best practices
 - More effective use of project management staff
 - Centralized reporting on projects and project spend
 - Better reporting and analytics on our projects
 - Implementation of centralized Project and Portfolio Management tool (Service Now PPM)
 - Testing Center of Excellence Return on Investment (ROI) and Improved Quality Assurance



Initiatives Aligned with Strategic Direction

Organizational Agility

- Innovation and an innovative culture
 - Leverage innovation process and portal launched in 2021 transparent and inclusive processes for gathering ideas from all SMUD staff
 - Collaborate to develop and implement a unified approach to business and technology innovations and to facilitate a more innovative culture
 - Implement technologies needed for our hybrid work environment
 - Complete deployment of mobile work management technology
 - Continue multi-year transformations of our core Enterprise Resource Planning (ERP) and Human Resources systems

(SD-8, 10, 17)



10)

Initiatives Aligned with Strategic Direction

Environmental Leadership

- (SD-7, 9, 4, Continue to develop the Advanced Distribution Management System 10) (ADMS), bringing two-way communication with Distributed Energy Resources (DER) across a more decentralized grid
- (SD-7, 9, 4, Develop technology to support creation of Solar/Storage and Multi-10)**DER Virtual Power Plants**
- (SD-7, 9, 4, Deliver specialized Distribution Planning Load and Distributed Energy Resource (DER) Allocation software to show DER effects on the grid
- (SD-7, 9, 4, Develop technology to support new Advanced Demand Response 10)programs



Initiatives Aligned with Strategic Direction

Community Vitality

- Improve the customer experience by upgrading our Contact Center (SD-2, 5, 8, 6)
 technology platform to provide robust and integrated services to customer service agents
- Continue to evolve and improve mobile applications to improve the (SD-2, 5, 8, 6)
 Customer experience
- Bring advanced business intelligence and analytics to bear on (SD-2, 5, 8, 6)
 6)
- Innovative partnerships with Information Technology companies to develop technologies that better serve our community
 (SD-2, 5, 8, 6)



Budget Summary

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Strategy & Innovation	\$5,662	\$6,827	\$6,823	(\$5)	0%
Strategic Initiatives	4,687	7,170	5,980	(1,191)	-17%
Infrastructure & Operations	312	911	1,758	848	93%
Cybersecurity	1,881	2,682	2,394	(288)	-11%
Applications	21,909	21,315	19,521	(1,794)	-8%
O&M Total	\$34,451	\$38,906	\$36,476	(\$2,430)	-6%
Strategic Initiatives	9,736	14,202	17,070	2,868	20%
Infrastructure & Operations	1,761	1,537	3,219	1,681	109%
Cybersecurity	1,721	0	795	795	100%
Applications	7,061	11,587	16,161	4,574	39%
Capital Total	\$20,278	\$27,327	\$37,245	\$9,918	36%
Business Unit Total	\$54,729	\$66,233	\$73,721	\$7,488	11%



Budget Summary (continued)

Overview

The 2022 Proposed Budget is higher than the 2021 Budget by \$7.5M or 11%. The 2022 Proposed Budget reflects an increase in Capital projects offset by less O&M spending. Labor costs have shifted from Allocated and O&M cost categories to Capital projects. Overall, staffing levels remained flat leading to a labor cost increase of less than 1% across all cost categories.

O&M: 2022 Proposed Budget is lower than 2021 Budget by \$2.4M or 6%. Applications is lower due to a shift of the Agile Project Delivery Management function to Strategy and Innovation, plus slightly less O&M project costs. Strategic Initiatives is lower due to reduced planning efforts as projects shift to the capital execution phase. Infrastructure & Operations is higher due to the Conference Room Technology project being deferred from 2021 to 2022 due to the COVID-19 pandemic, and some compliance costs shifting to Cybersecurity. Strategy & Innovation is equivalent to 2021 with the shift into the segment of the SMUD Innovation and Agile Project Delivery Management functions, offset by a shift of the Business Transformation function to the Workforce & Diversity Business Unit.

Capital: 2022 Proposed budget is higher than 2022 Budget by \$9.9M or 36%. This is due to several large projects moving into execution phase. Labor costs will shift from O&M and Allocated to Capital as a result. Non-labor costs are increasing by \$5.6M. Applications is higher due to work beginning on new technologies such as a commercial customer platform, upgraded technology tools for Contact Center agents, specialized Distribution Planning Load Allocation software, and the transformation of our Human Resources systems. Strategic Initiatives is higher due to starting execution work for the planned integration of the Outage Management System (OMS) with the Advanced Distribution Management System (ADMS), continued evolution of the existing Synchronous Optical Network (SONET) communications infrastructure, and technology to increase fiber-optic network capacity, offset by reduced spending on the initial grid modernization ADMS, planned to complete in 2022. Cybersecurity and Infrastructure & Operations are higher due to more costly planned lifecycle hardware replacements.



Allocated Budget Summary (Information Only)

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Strategic Initiatives	\$9,451	\$12,020	\$11,972	(\$48)	27%
Infrastructure & Operations	21,136	17,725	18,757	\$1,032	6%
Cybersecurity	6,515	7,778	8,151	\$373	5%
Applications	22,837	24,856	26,552	\$1,696	7%
Allocated Total*	\$59,939	\$62,378	\$65,432	\$3,054	5%
Included in SMUD Business Units O&M and Capital	(59,939)	(62,378)	(65,432)	(3,054)	5%
Net	\$0	\$0	\$0	\$0	0%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only)

Overview

The 2022 Proposed Allocated Budget is higher than the 2021 Budget by \$3.1M or 5%.

Higher non-labor costs are offset by lower labor costs due to an overall shift of SMUD staff resources to Capital projects. Applications is higher driven by software license and capacity increases, software costs shifting to operational support from completing projects, license and hosting costs shifting from other business units, and contractor costs related to moving software to the cloud. Infrastructure & Operations is higher due to lifecycle purchases of specialized desktops, laptops and associated computer equipment. Cybersecurity labor is higher due to increased scope to meet current and emerging cybersecurity needs.



Strategy & Innovation Segment

The Strategy and Innovation segment has responsibility for management of technology infrastructure from idea through delivery. The Innovation function supports SMUD-wide initiatives and a culture where innovative ideas are nurtured and developed. The segment also collaborates closely with all business units on enterprise-wide technology road maps, project management and quality assurance functions.





Strategy & Innovation Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Project Planning & Execution	\$581	\$810	\$544	(\$266)	-33%
Project Management	593	1,016	2,239	1,223	120%
Business Relationship Management	2,817	3,702	1,863	(1,839)	-50%
Plan & Assess	23	0	174	174	100%
Innovation	1,647	1,299	2,002	703	54%
O&M Total	\$5,662	\$6,827	\$6,823	(\$5)	0%



Strategic Initiatives Segment

Strategic Initiatives has responsibility for the development, oversight and implementation of technology programs and projects. Program responsibilities include data governance, license and vendor management and enterprise architecture. These support SMUD's vision for short- and long-term plans and ensure the best return on technology investments. This segment is also responsible for major enterprise initiatives like ADMS, DERMS, Network Transformation, Analytics, Data Governance and technologies to support new business endeavors.

Work Processes

Project Delivery

Operational Support & Problem Resolution

Contracts & License Management

Analytics & Data Governance

Enterprise Architecture

Technology Enhancements

Planning & Assessment



Strategic Initiatives Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Project Planning & Execution	\$3,866	\$5,470	\$4,682	(\$789)	-14%
Service Requests	36	90	0	(90)	-100%
Enterprise Architecture	382	885	794	(91)	-10%
Plan and Assess	358	576	216	(360)	-62%
Data Governance	45	149	288	139	93%
O&M Total	\$4,687	\$7,170	\$5,980	(\$1,191)	-17%



Strategic Initiatives Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Project Execution	\$9,736	\$14,202	\$17,070	\$2,868	20%
Capital Total	\$9,736	\$14,202	\$17,070	\$2,868	20%



Strategic Initiatives Segment Capital Projects

Major Capital Projects - \$000s					
Project	Alignment with Strategic Direction	2022 Budget			
assists distribution system operators, engineers, managers and other electric utility staff in monitoring and controlling the distribution system resulting in the optimization of this	SD-4 Reliability SD-7 Environmental Leadership SD-17 Enterprise Risk Management	\$2,564			
will enhance the Information SiviuD's customers receive. Integrating the OMS with ADMS	SD-4 Reliability SD-17 Enterprise Risk Management	\$4,456			



Strategic Initiatives Segment Capital Projects cont'd

Major Capital Projects - \$000s					
Project	Alignment with Strategic Direction	2022 Budget			
SONET Transformation (Phases 1 and 2, MPLS Pilot) Continue replacement of the existing Synchronous Optical Network (SONET) infrastructure to support communications requirements. Additional phases, starting in 2022, will incorporate critical services and complete a pilot program to transition infrastructure to Multiprotocol Network Switching Technology (MPLS).	SD-4 Reliability SD-17 Enterprise Risk Management	\$2,744			
Fiber-Optic DWDM Deployment Deploy node technology that will add capacity to our fiber network.	SD-4 Reliability SD-17 Enterprise Risk Management	\$1,989			
AT&T Point to Point Communication Services Replacement Replace legacy point-to-point and multi-point communication services that support the Distribution Systems Operations (DSO) and have reached the end of support.	SD-4 Reliability	\$1,160			
DC Power Rack and Battery Lifecycles Lifecycle upgrades of DC racks and -48VDC batteries that have reached the end of useful life.	SD-4 Reliability	\$924			
Substation Security PIDS Lifecycle Lifecycle upgrades of Perimeter Intrusion Detection Systems (PIDS) that have reached the end of useful life.	SD-6 Safety SD-17 Enterprise Risk Management	\$907			
Gas Site Network Resiliency & Capability Update communications architecture to improve communication with and uptime of Gas sites.	SD-4 Reliability	\$676			
Storage / Multi Distributed Energy Resource (DER) Virtual Power Plant Develop technologies to support integration of several types of power sources, including Distributed Energy Resources, to deliver a reliable carbon-free power supply.	SD-7 Environmental Leadership SD-9 Resource Planning	\$655			



Strategic Initiatives Segment – Allocated (Information Only)

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Contracts & License Mgmt	\$3,726	\$3,981	\$3,591	(\$391)	-10%
Operational Support	5,085	7,174	8,381	1,207	17%
Problem Resolution	641	864	0	(864)	-100%
Allocated Total*	\$9,451	\$12,020	\$11,972	(\$48)	0%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only)



Infrastructure & Operations Segment

The Infrastructure and Operations segment provides corporate data/voice network, server/storage infrastructure, corporate email, and system administration services, support center, endpoint computing, computer operations, data center administration, infrastructure change management, and asset management.

Work Processes
Project Delivery
Operational Support & Problem Resolution
Operations Architecture
Planning & Assessment
Compliance



Infrastructure & Operations Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Plan and Assess	\$122	\$198	\$159	(\$39)	-20%
Project Planning & Execution	67	359	1,518	1,159	322%
Service Management	123	86	81	(4)	-5%
Compliance	0	267	0	(267)	-100%
O&M Total	\$312	\$911	\$1,758	\$848	93%



Infrastructure & Operations Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Project Execution	\$1,761	\$1,537	\$3,219	\$1,681	109%
Capital Total	\$1,761	\$1,537	\$3,219	\$1,681	109%



Infrastructure & Operations Segment Capital Projects

Major Capital Projects - \$000s				
Project	Alignment with Strategic Direction	2022 Budget		
Lifecycle Infrastructure Lifecycle upgrades of hardware, storage, and network equipment that has reached the end of useful life.	SD-4 Reliability	\$3,175		



Infrastructure & Operations Segment – Allocated (Information Only)

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Operational Support	\$17,581	\$14,431	\$15,806	\$1,375	10%
Problem Resolution	3,555	3,294	2,952	(342)	-10%
Allocated Total*	\$21,136	\$17,725	\$18,757	\$1,032	6%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only)



Cybersecurity Segment

The Cybersecurity segment acts as cybersecurity and privacy risk advisors to continually improve SMUD's cyber risk posture and protect our people, processes and technology through an organization-wide risk management approach.

Work Processes
Cyber Governance, Risk & Compliance
CIP Compliance
Cyber & Privacy Program
Threat Assessment & Response
System Security Operations
Incident Response & Emergency Operations



Cybersecurity Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Compliance	\$1,468	\$2,674	\$2,394	(\$280)	-10%
Project Planning & Execution	413	8	0	(8)	-100%
O&M Total	\$1,881	\$2,682	\$2,394	(\$288)	-11%



Cybersecurity Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Project Execution	\$1,721	\$0	\$795	\$795	100%
Capital Total	\$1,721	\$0	\$795	\$795	100%



Cybersecurity Segment Capital Projects

Major Capital Projects - \$000s						
Project	Alignment with Strategic Direction	2022 Budget				
I itec/icle lindrades of specialized ("Vibersecurity hardware that has	SD-16 Information Management and Security	\$795				



Cybersecurity Segment – Allocated (Information Only)

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Compliance	\$6,515	\$7,778	\$8,151	\$373	5%
Allocated Total*	\$6,515	\$7,778	\$8,151	\$373	5%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only)



Applications Segment

The Applications segment is responsible for the delivery and support of the portfolio of new information technology investments in addition to providing application and database administration and maintenance support for all deployed systems, along with applications/system security and operations services.

Work Processes
Project Delivery
Operational Support & Problem Resolution
Technology Enhancements
Planning & Assessment



Applications Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Project Planning & Execution	\$18,227	\$17,263	\$16,960	(\$303)	-2%
Plan & Assess	547	699	410	(289)	-41%
Service Requests	3,135	3,353	2,151	(1,202)	-36%
O&M Total	\$21,909	\$21,315	\$19,521	(\$1,794)	-8%



Applications Segment – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Project Execution	\$7,061	\$11,587	\$16,161	\$4,574	39%
Capital Total	\$7,061	\$11,587	\$16,161	\$4,574	39%



Applications Segment Capital Projects

Major Capital Projects - \$000s						
Project	Alignment with Strategic Direction	2022 Budget				
Talent Technology Transformation T3 SMUD's Talent Technology and Transformation (T3) project will replace the existing Human Capital Management systems with a comprehensive digital suite including HR, Payroll, Talent Management and Analytics. Both technology and processes will be transformed, bringing more simplicity and efficiency for SMUD's employees and for Workforce, Diversity and Inclusion teams. Benefits include an improved employee experience with these systems and additional tools to attract, retain, build and manage our workforce.	SD-8 Employee Relations SD-2 Competitive Rates SD-17 Enterprise Risk Management	\$5,886				
Workforce Optimization Workforce Optimization supports mobile work management in the field by implementing technology to enable that capability as well as to streamline supporting business processes. The initiative will help resolve redundant work, increase efficiency and enhance our reporting to regulatory compliance agencies. Increased visibility to data will improve decision-making, resulting in increased reliability, reduced operational cost, and improved customer experience.	SD-8 Employee Relations SD-10 Innovation SD-2 Competitive Rates	\$2,823				
Distribution Planning Load Allocation Software Procure and implement specialized Distribution Planning Load and Distributed Energy Resource (DER) Allocation software to decrease time to complete long- term distribution planning, improve processes and provide a more granular view of DER effects on the distribution grid.	SD-7 Environmental Leadership SD-9 Resource Planning SD-4 Reliability	\$1,767				



Applications Segment Capital Projects (continued)

Major Capital Projects - \$000s					
Project	Alignment with Strategic Direction	2022 Budget			
Contact Center Technology Upgrade Upgrade Contact Center technology platform to provide more robust and integrated services to customer service agent teams to enhance the experience of our customers.	SD-5 Customer Relations SD-2 Competitive Rates SD-8 Employee Relations	\$1,667			
Commercial Customer Self-Service Platform Stand up a new technology platform for Commercial customers.	SD-5 Customer Relations SD-10 Innovation SD-19 Diversified Business	\$1,600			
Vegetation Work Management Solution (Phases 1 and 2) Vegetation Management identifies vegetation locations and manages the field work performed by contracting partners. Implement a new mobile solution for Vegetation Management crews that uses advanced analytics to direct work to areas of highest need, that integrates with Geographic Information System (GIS) and SAP, and will improve contractor payments and billing workflows.	SD-8 Employee Relations SD-4 Reliability	\$997			



Applications Segment – Allocated (Information Only)

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Operational Support	\$22,120	\$24,228	\$26,552	\$2,324	10%
System Security	717	628	0	(628)	-100%
Allocated Total*	\$22,837	\$24,856	\$26,552	\$1,696	7%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only)

2022 Budget Corporate Services/Enterprise Business Unit

Powering forward. Together.



Corporate Services Business Unit SMUD

Segments & Work Processes

Governance	Finance	Facilities, Security & Office Services	Procurement, Warehouse & Fleet	Legal & Government Affairs	Comm., Marketing & Community Relations	Enterprise Affairs
Audit Services	Planning & Performance	Facilities	Procurement	Corporate Legal	Marketing & Brand	Risk Mitigation Plans
Board Coordination	Treasury Operations & Risk Management	Security Operations	Warehouse	Reliability Compliance	Corporate Communications	
Executive Management	Corporate Accounting	Image Production & Postal Services	Fleet	Legislative, Regulatory & Government Relations	Market Research	

Initiatives Aligned with Strategic Direction

Safety & Reliability

Financial & Administrative Services

•	 Continue to enhance security operations Implement phase 2 of security badging system 	(SD-6)
•	 Ongoing facilities management Remote work and employee re-entry, including facilities modifications for any new safety protocols Complete Rancho Seco Master Plan 	(SD-6, 8)
•	Continue developing the Enterprise Continuity Management Plan (ECMP) to ensure coordination across the organization	(SD-6, 17)





Initiatives Aligned with Strategic Direction

Safety & Reliability

Legal, Government Affairs & Reliability Compliance

- Western Electricity Coordinating Council (WECC) Audit of North (SD-4, 17) American Electric Reliability Corporation (NERC) Standards
- Compliance with legislative and regulatory mandates (e.g., in (SD-7, 17) response to extreme weather events)
- Ensuring information management requirements are met in new and (SD-16) existing systems
- Increasing Internal Control focus to mitigate reliability risk in high-risk (SD-4, 17) areas
- Ensure cybersecurity protections are in place and actively monitored (SD-16)
 - Using Domain Registries to reduce cybersecurity risk



Initiatives Aligned with Strategic Direction

Safety & Reliability

Marketing & Corporate Communications

Customer and employee outreach and communication

- Safety for Life, car/pole safety and wildfire safety campaigns
- Sparky's calendar and newsletter for employees' children
- Storm preparation safety campaign
- Weekly Safety for Life email newsletter for all employees

(SD-5, 6, 8, 15)



Initiatives Aligned with Strategic Direction

Affordability

Financial & Administrative Services

Support achievement of the 2030 Clean Energy Vision

(SD-2, 3)

- Provide accurate and timely financial and performance data Support grant capture process and ongoing management
- Implement enhanced planning and risk management processes to support execution
- Manage debt, mitigate unfunded liabilities, manage risk to maximize (SD-2, 3) rate smoothing and minimize rate increases
 - Incorporate green financing as feasible
 - Ensure adequate mix of self-insurance, cash reserves and insurance combined with infrastructure and maintenance investments
- Research, monitor and implement new upcoming Accounting (SD-2) standards
 - Leases and Subscription-based Information Technology Arrangements



Initiatives Aligned with Strategic Direction

Affordability

Legal, Government Affairs & Reliability Compliance

- Coordinate across SMUD to target federal grant assistance that (SD-2, 11) provides optimal support of the 2030 Zero Carbon Plan
- Legal support for new revenue opportunities and monetization of (SD-2, 7) intellectual property
- Execute litigation strategies for defense and cost recovery (SD-2)
 - Union Pacific Railroad
 - Rancho Seco settlement (annual claims process)
- Defend against costly mandates (e.g., wildfire mitigation, pole (SD-2, 11) attachments)



Initiatives Aligned with Strategic Direction

Organizational Agility

Financial & Administrative Services

- Leverage newly consolidated planning group to streamline planning (SD-2) and develop process improvements, while also delivering on operational savings
 - Partnering with Enterprise Prioritization, Operational Excellence, Innovation, Risk Management and Project Management groups

Legal, Government Affairs & Reliability Compliance

- Improvements to evidence gathering and controls to better protect (SD-2, 5, 17)
 SMUD against property damage and injury claims
- Enhancement of Document Usability and Control (SD-2, 8)
 - Implementation of email records management policy
 - Streamlining of records classification and evaluation process
- Participate in wholesale energy market development (SD-7, 9, 11)



Initiatives Aligned with Strategic Direction

Organizational Agility

Marketing & Corporate Communications

- Launch optimized pages and sections on smud.org based on (SD-5, 15) research findings and feedback
- Further streaming media engagements, including Hulu television and (SD-5, 15) Pandora radio
- Optimize digital marketing based on data from internal and external (SD-5, 15) analytics, including Google and social media platforms
- Automate educational email campaigns on and track which (SD-5, 15) customers are more likely to enroll in programs based on email interactions
- Build a Clean PowerCitySM microsite a one-stop-shop for customers to Join the Charge
 (SD-5, 15)
- Roll out digital focus groups and online research communities to (SD-5, 15) reach more people, quickly



Initiatives Aligned with Strategic Direction

Environmental Leadership

Financial & Administrative Services

- Enhancing our fleet by increasing the number of electric vehicles. (SD-7) SMUD's goal is to have 50% of all light duty vehicle miles driven be zero emissions and all electric by 2025.
- Creating a multi-year replacement plan for tool electrification (SD-7)
- Enhance environmental sustainability practices within SMUD (SD-7, 13) procurement function
 - Continue 3-year environmental sustainability projects from Utility & Supplier Alliance (EUSSCA)
 - Continuing to emphasize environmental leadership in Requests for Proposals (RFPs)
- Reduce operational waste and increase the recycling/re-use (SD-7) diversion rate



(SD-7, 9, 11)

Initiatives Aligned with Strategic Direction

Environmental Leadership

Legal, Government Affairs & Reliability Compliance

- Proactive advocacy at the local, state, and federal level that advances our strategic directives
 - Transportation and building electrification (ex. Advanced Clean Fleet)
 - California Air Resources Board (CARB) 2022 Scoping Plan
 - Distributed Energy Resource (DER) policy
 - California Energy Commission (CEC) Load Management Standard (LMS)
 - State clean energy project funding
 - Federal clean energy legislation/rule making
- Draft and negotiate power purchase agreements (SD-2, 9)
- Legal/Government Affairs support for solar development (property (SD-2, 7, 9) rights & permitting)
- Establish firmer parameters around wind and other renewable (SD-2, 7) development through litigation (Solano County v SMUD) and legislative outreach



Initiatives Aligned with Strategic Direction

Environmental Leadership

Marketing & Corporate Communications

- Deliver new integrated Clean PowerCitySM campaigns to build (SD-5, 7, 15) awareness and engagement around SMUD's 2030 Clean Energy Vision
- Educate our customers and community how they can participate in (SD-5, 7, 15) the 2030 Clean Energy Vision with quick and easy-to-understand graphics, videos and social media content
- Sign up 50,000 people to "Join the Charge" through marketing (SD-5, 7, 15) events, speaking engagements, green program enrollment and our social media channels
- Wrap transformers and fleet vehicles with a Clean Power City (SD-5, 7, 15) message
- Build and grow community sponsorships, partnerships and volunteer (SD-5, 7, 15) programs to support environmental leadership



Initiatives Aligned with Strategic Direction

Community Vitality

Financial & Administrative Services

- Partnering with the Supplier Education & Economic Development (SD-5, 13) (SEED) team and the new Diversity Equity & Inclusion (DE&I) Director to explore opportunities to enhance our procurement practices
- Ensuring the budget and resources are aligned with priorities and (SD-2, 5) risk to keep our rates affordable for all customers today and in the future

Legal, Government Affairs & Reliability Compliance

- Provide legal counsel that advances SMUD business objectives in the community
 (SD-2, 5, 7, 8)
 - Sustainable communities
 - 59th Street re-use
- Local and regional government collaboration on building and (SD-5, 13, transportation electrification in support of the 2030 Zero Carbon Plan
 15)



Initiatives Aligned with Strategic Direction

Community Vitality

Marketing & Corporate Communications

- Organize and host Zero Carbon community forums, listening (SD-5, 15) sessions and other gatherings to understand customer segments and keep them in the conversation
- Focused young adult/youth outreach including in-classroom, clubs (SD-5, 15) and social media thought leadership/influencers
- Launch an all-new HOA sponsorship and partnership initiative (SD-5, 15)
- Leverage arts partnerships to boost engagement in Clean (SD-5, 15)
 PowerCitySM, with a focus on youth, families and social media
- Market approximately 35 programs and services. All marketing is (SD-5, 15) designed to help our customers save money, protect the environment, or both.
- Continue to leverage flagship partnerships, such as the SMUD (SD-5, 15) Museum of Science and Curiosity, Sac Republic, River Cats and Kings



Initiatives Aligned with Strategic Direction

Community Vitality

Marketing & Corporate Communications (continued)

- Continue to proactively identify and secure speaking opportunities to (SD-5, 15) showcase SMUD's decarbonization efforts locally and for statewide and national audiences
- Return to participating in flagship events such as the State Fair, the (SD-5, 15) Air Show and home & garden shows
- Support SMUD Cares and The Big SMUD Giveback (SD-5, 8, 15)
- Hold community drives, such as for food, clothing and school (SD-5, 8, 15) supplies



Budget Summary

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Governance	\$10,498	\$11,258	\$11,413	\$155	1%
Finance	36,782	33,749	44,047	10,297	31%
Legal, Gov't Affairs & Reliability Compliance	11,347	11,816	13,802	1,986	17%
Facilities, Security & Office Services	8,967	6,943	6,710	(233)	-3%
Procurement, Warehouse & Fleet	1,426	2,119	1,760	(359)	-17%
Communications, Marketing & Community Relations	23,505	24,962	26,123	1,161	5%
Enterprise Affairs	1,427	223	252	28	13%
O&M Total	\$93,952	\$91,070	\$104,106	\$13,036	14%
Revenue	(44)	0	0	0	0%
Applied to SMUD Capital & Public Good [1]	(3,353)	(3,724)	(4,955)	(1,232)	33%
O&M (Net)	\$90,556	\$87,346	\$99,150	\$11,804	14%
Communications, Marketing & Community Relations	1,289	1,471	1,924	452	31%
Public Good Total	\$1,289	\$1,471	\$1,924	\$452	31%
Facilities, Security & Office Services	16,790	20,019	17,061	(2,958)	-15%
Procurement, Warehouse & Fleet	6,732	11,343	12,716	1,372	12%
Capital Total	\$23,522	\$31,363	\$29,777	(\$1,586)	-5%
Business Unit Total	\$115,367	\$120,180	\$130,851	\$10,670	9%

[1] FERC allows a portion of A&G expenses to be allocated to capital and public good work processes. SMUD has chosen a portion of Treasury & Risk Management (including Insurance) as the base of this allocation. Therefore, the allocation applied in other SMUD Business units is shown on this page to avoid duplication of overall O&M dollars.





Overview

The 2022 Proposed Budget is higher than the 2021 Budget by \$10.7M or 9%.

O&M: 2022 Proposed is \$13M higher than the 2021 Budget primarily due to a shift in labor costs resulting from the organizational realignment, with no net change to SMUD costs. The largest changes are in Planning & Performance, Accounting, Legal, and CMCR. Staff time shifted from Allocated and Overhead areas into O&M for Planning & Performance, Accounting and CMCR. Outside legal counsel and legal staff time was consolidated from various other Business Units into Legal to create efficiencies with the organization. There is also a reduction in Fleet leases due to costs being charged to projects in other areas of the company instead of Fleet O&M.

Public Good: 2022 Proposed is \$0.5M higher than the 2021 Budget due to a shift in costs back to CMCR from Advanced Energy Solutions. In 2021, budget was transferred to Advanced Energy Solutions to fund Building Electrification efforts in 2021. For 2022, this funding is returning to CMCR.

Capital: 2022 Proposed is \$1.6M lower than the 2021 Budget mainly due to some Facilities projects being shifted out to future years and a land purchase planned in 2021 that does not carry into 2022. This decrease is partially offset by an increase in fleet capital due to 2021 vehicles being carried into 2022 when delivery is expected.



Allocated Budget Summary (Information only)

Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Facilities, Security & Office Services	\$22,869	\$28,856	\$26,371	(\$2,485)	-9%
Procurement, Warehouse & Fleet	23,875	24,075	23,993	(82)	0%
Allocated Total*	\$46,744	\$52,931	\$50,363	(\$2,567)	-5%
Included in SMUD Business Unit's O&M and Capital	(46,744)	(52,931)	(50,363)	2,567	5%
Net	\$0	\$0	\$0	\$0	0%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only)

Overview

The 2022 Proposed Allocated Budget is lower than the 2021 Budget by \$2.6M or 5%.

The Allocated Proposed budget is decreasing compared to 2021 Budget due to reductions in labor costs resulting from a shift of positions to the Enterprise Resource Pool. There are also reductions in non-labor costs to reflect savings from process improvements and efficiency gains.





Governance Segment

The Governance Segment is responsible for the planning, organizing, staffing, leading/engaging and controlling/monitoring of overall activities to ensure that SMUD goals are achieved.

Work Processes
Audit Services
Board Coordination
Executive Management



Governance Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Audit Services	\$2,567	\$3,621	\$3,550	(\$71)	-2%
Board of Directors	1,087	1,178	1,179	0	0%
Executive Management	6,843	6,458	6,685	226	4%
O&M Total	\$10,498	\$11,258	\$11,413	\$155	1%



Finance Segment

The Finance Segment coordinates the development and reporting of strategic and operational plans, budgets, financial statements, and performance metrics for SMUD and JPAs. This segment also manages insurance programs and funding requirements, monitors enterprise-wide risk exposures, industry and market power issues, and updates business and economic forecasts.

Work Processes

Planning & Performance

Treasury Operations & Risk Management

Corporate Accounting

Corporate Services Finance Segment – O&M



Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Planning & Enterprise Performance	\$5,133	\$2,435	\$8,577	\$6,142	252%
Treas Ops & Risk Mgmt (excl Insurance)	7,668	7,308	7,222	(87)	-1%
Corporate Accounting	4,935	5,272	7,062	1,790	34%
Subtotal (excluding Insurance)	\$17,736	\$15,016	\$22,861	\$7,845	52%
Liability Insurance	15,018	14,566	16,626	2,060	14%
Property Insurance	4,029	4,167	4,560	392	9%
Subtotal - Insurance Only	\$19,046	\$18,733	\$21,186	\$2,452	13%
Applied to SMUD Capital & Public Good [1]	(3,353)	(3,724)	(4,955)	(1,232)	33%
O&M Net	\$33,429	\$30,025	\$39,091	\$9,066	30%

[1] FERC allows a portion of A&G expenses to be allocated to capital and public good work processes. SMUD has chosen a portion of Treasury & Risk Management (including Insurance) as the base of this allocation. Therefore, the allocation applied in other SMUD Business units is shown on this page to avoid duplication of overall O&M dollars.





Facilities, Security & Office Services Segment

The Facilities, Security & Office Services Segment provides operation and maintenance services for SMUD grounds and facilities. The segment also addresses all postal and reprographics needs and provides essential fire, security, emergency preparedness and business continuity services for SMUD.





Facilities, Security & Office Services – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Facilities	\$8,967	\$6,943	\$6,710	(\$233)	-3%
O&M Total	\$8,967	\$6,943	\$6,710	(\$233)	-3%
Revenue	(44)	0	0	0	0%
O&M (Net)	\$8,924	\$6,943	\$6,710	(\$233)	-3%



Facilities, Security & Office Services – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed		% Change vs Budget
Facilities	\$16,790	\$20,019	\$17,061	(\$2,958)	-15%
Capital Total	\$16,790	\$20,019	\$17,061	(\$2,958)	-15%





Facilities, Security & Office Services Capital Projects

Major Capital Projects - \$000s				
Project Description	Alignment with Strategic Direction	2022 Budget		
Child Care Center Tenant Improvements: SMUD's share (in partnership with UC Davis Medical Center & Sacramento State) of the tenant improvements for the new Child Care Center	SD-5 Customer Relations SD-8 Employee Relations	\$1,545		
Facilities Multi-Year Projects: Includes PACS System replacement, Headquarters Site Infrastructure Work, CSC Restack, 59th Street Demolition, and Child Care Center Lease	SD-4 Reliability SD-5 Customer Relations SD-6 Safety SD-8 Employee Relations	\$10,821		
Facilities Asset Lifecycle Projects & Programs: Includes Asset Management projects in the following categories: Building Interiors, Building & Site Infrastructure, Electrical & Mechanical Systems, and Fire and Security Systems.	SD-4 Reliability SD-5 Customer Relations SD-6 Safety SD-7 Environmental Leadership SD-8 Employee Relations	\$4,695		



Facilities, Security & Office Services – Allocated

(Information only)

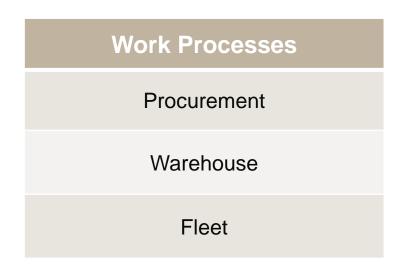
Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Facilities	\$14,759	\$19,806	\$18,228	(\$1,578)	-8%
Security	6,268	6,401	6,643	241	4%
Office Services	1,842	2,648	1,499	(1,149)	-43%
Allocated Total*	\$22,869	\$28,856	\$26,371	(\$2,485)	-9%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only)



Procurement, Warehouse & Fleet Segment

The Procurement, Warehouse and Fleet segment provides fleet equipment and services, warehousing and logistics support, and contracting solutions that support all other areas of SMUD. The segment is primarily focused on providing safe and reliable resources with environmental sustainability, community focused, and cost-effective outcomes.





Procurement, Warehouse & Fleet – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed		% Change vs Budget
Supply Chain	\$568	\$646	\$576	(\$70)	-11%
Fleet	858	1,473	1,184	(289)	-20%
O&M Total	\$1,426	\$2,119	\$1,760	(\$359)	-17%



Procurement, Warehouse & Fleet – Capital

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed		% Change vs Budget
Fleet	\$6,732	\$11,343	\$12,716	\$1,372	12%
Capital Total	\$6,732	\$11,343	\$12,716	\$1,372	12%





Procurement, Warehouse & Fleet Capital Projects

Major Capital Projects - \$000s				
Project DescriptionAlignment with Strategic Direction2022 Budget				
Fleet Capital Projects: Work Efficiency Replacements, Legal and Regulatory Compliance Replacements and Life Cycle Replacements.	SD-6 Safety SD-7 Environmental Leadership	\$12,716		



Procurement, Warehouse & Fleet – Allocated

(Information only)

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed		% Change vs Budget
Supply Chain	\$15,968	\$15,920	\$15,628	(\$293)	-2%
Fleet	7,908	8,155	8,365	210	3%
Allocated Total*	\$23,875	\$24,075	\$23,993	(\$82)	0%

*Allocated expenses included in all SMUD Business Unit's O&M and Capital summaries (information only)



Legal, Government Affairs & Reliability Compliance Segment

The Legal, Government Affairs & Reliability Compliance segment has the responsibility for all legal matters to which SMUD is a party or to which it is legally interested, and is responsible for enterprise records, management and coordination regarding federal and state regulatory requirements, legislative initiatives and governmental policies, local and regional ordinances and policies and compliance filings to meet mandatory reliability standards. This segment is also monitoring, lobbying and impacting state and federal legislative and regulatory proposals, coordinating internally and externally to assure the adequacy of controls, developing and tracking compliance programs, and advancing laws and regulations that allow the greatest innovation and flexibility for SMUD.







Legal, Government Affairs & Reliability Compliance Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Corporate Legal	\$3,264	\$3,554	\$5,505	\$1,950	55%
Legislative, Regulatory & Government Relations	5,597	5,635	5,787	152	3%
Reliability Compliance	2,486	2,627	2,510	(116)	-4%
O&M Total	\$11,347	\$11,816	\$13,802	\$1,986	17%





Communications, Marketing & Community Relations Segment

CMCR promotes the adoption of the SMUD brand and increases awareness of programs, services and value to the community through marketing, market research, community engagement, economic development and digital communication channels.

Work Processes

Marketing & Brand

Corporate Communications

Market Research



Communications, Marketing & Community Relations Segment – O&M/Public Good

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	<pre>\$ Change vs Budget</pre>	% Change vs Budget
Marketing & Brand	\$15,962	\$16,993	\$16,803	(\$191)	-1%
Corporate Communications	7,543	7,969	9,320	1,352	17%
O&M Total	\$23,505	\$24,962	\$26,123	\$1,161	5%
Marketing & Research BE/EE	1,208	1,286	1,738	453	35%
Solutions Marketing Support	81	186	185	(0)	0%
Public Good Total	\$1,289	\$1,471	\$1,924	\$452	31%
O&M Total	\$24,795	\$26,433	\$28,047	\$1,613	6%





Enterprise Affairs Segment

The Enterprise Affairs Segment houses enterprise-level efforts including the Hazard Mitigation Program and other miscellaneous items.

Work Processes

Hazard Mitigation Program



Enterprise Affairs Segment – O&M

Summary (\$000s)	2021 Forecast	2021 Budget	2022 Proposed		% Change vs Budget
Mitigation Plans	\$150	\$223	\$252	\$28	13%
Special Items	1,277	0	0	0	0%
O&M Total	\$1,427	\$223	\$252	\$28	13%

2022 Budget Enterprise Business Unit

Powering forward. Together.







Segments & Work Processes

The Enterprise Services Business unit houses enterprise-level efforts including the performance plan program and corporate contingency items.

Enterprise BU Contingency Performance Plan General/Miscellaneous

Enterprise Budget Summary



Segments (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	•	% Change vs Budget
General/Miscellaneous	\$13,711	\$16,502	(\$9,184)	(\$25,686)	-156%
O&M Total	\$13,711	\$16,502	(\$9,184)	(\$25,686)	-156%
General/Miscellaneous	0	700	0	(700)	-100%
Public Good Total	\$0	\$700	\$0	(\$700)	-100%
Capital Contingency	0	46,100	(15,000)	(61,100)	-133%
Capital Total	\$0	\$46,100	(\$15,000)	(\$61,100)	-133%
Business Unit Total	\$13,711	\$63,302	(\$24,184)	(\$87,486)	-138%

Overview

The 2022 Proposed Budget is lower than the 2021 Budget by \$87.5M or -138%.

The Enterprise Business Unit houses funds for O&M and capital contingency, remaining SB-1 fund payments and performance plan programs. In 2022, contingency amounts are added as credits to expenses in anticipation of Operational Excellence successes across the company. The remaining expenses for 2022 are related to General Claims work.