



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

Paul Lau, Chief Executive Officer & General Manager

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 PowerCity<sup>SM</sup> 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
<b>Subtotal</b>	<b>\$1,140.2</b>	<b>\$1,163.9</b>	<b>\$23.7</b>
Debt Service	213.7	212.2	(1.6)
Capital (d)	390.9	359.9	(31.0)
<b>Total Budget Authorization</b>	<b>\$1,744.8</b>	<b>\$1,735.9</b>	<b>(\$8.9)</b>

*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 PowerCity<sup>SM</sup> 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 59<sup>th</sup> Street facility to remove solvents in soil and groundwater remediation efforts at the former Community Linen site (FCL). The 59<sup>th</sup> 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 eFuel<sup>SM</sup> 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 short-term 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 the 2022 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

*DRAFT*

Powering forward. Together.



# 2022 Budget

## Strategic Direction

### Purpose, Vision & Values



Powering forward. Together.



## Core Values: Strategically Essential for SMUD

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

## Key Values: Provide Value-Added Services

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

## Purpose Statement

SD-1A SMUD'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 Reliability - Meeting customer energy requirements
- SD-5 Maintain a high level of Customer Relations
- SD-6 Safety - Creating a safe environment for employees and the public is a core value of SMUD
- SD-7 Environmental Leadership - Continuous improvement in pollution prevention, minimizing environmental impacts, conserving resources and promoting equity within SMUD's diverse communities
- SD-8 Employee Relations - 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 Resource Planning process
- SD-10 Deliver innovative solutions, products and services to our customers
- SD-11 Public Power Business Model – Support and strengthen the public power business model
- SD-12 Ethics – Maintain the public trust and confidence in the integrity and ethical conduct of the Board and SMUD employees
- SD-16 Information Management and Security Policy - Proper management of cyber and physical information, 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 enterprise risk management 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 Economic Development – Promote economic vitality of our region and the growth of our customer base
- SD-14 Make selected distribution system enhancements such as relocation or underground placement of primary power lines.
- SD-15 Broad Outreach and Communication to SMUD's customers and the community
- SD-19 Broaden and diversify the products and services that SMUD offers

# 2022 Budget Performance Metrics



Powering forward. Together.



# Performance Metrics

Strategic Direction	Metric	2021 Forecast	2021 Target	2022 Target
SD-2 Competitive Rates	<b><u>Competitive System Average Rates</u></b>			
	Percent below Pacific Gas & Electric	36.7%	18.0%	18.0%
	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	<b>Fixed Charge Ratio of at least 1.50</b>	2.12	1.80	1.93
	<b>SMUD Availability of Generation Assets</b>	99%	97%	97%
	<b>Overall Availability of Transmission Assets</b>	100%	>99.99%	>99.99%
	<b><u>Distribution System Reliability<sup>1</sup></u></b>			
	<b>Duration of Outages (SAIDI)</b>			
	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
	<b>Frequency of Outages (SAIFI)</b>			
	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 Relations	Customer Satisfaction Survey <sup>2</sup>	95%	95%	95%
	Value for What You Pay <sup>3</sup>	76%	70%	72%
SD-6 Safety	<b><u>Shift safety culture, improve safety results, and maintain positive financial performance</u></b>			
	<b>Leading Indicator</b>			
	Employee-Supervisor Interactions	173%	95%	95%
	Incident Reports ≤ 3 days <sup>4</sup>	88%	95%	95%
	Incident Investigations ≤ 5 days <sup>5</sup>	65%	95%	95%
	<b>Days Away Restricted Time (DART)</b>			
	Severity incidents to 13 or less than by 2025	16	23	20
	<b>Workers' Compensation</b>			
	Workers' compensation program performance	\$1.29	\$0.85	\$0.76
SD-8 Employee Relations	<b><u>Employee Engagement<sup>6</sup></u></b>			
	Sustain Employee Engagement	TBD	>80%	>80%



# Performance Metrics (continued)

Strategic Direction	Metric	2021 Forecast	2021 Target	2022 Target
SD-9 Resource Planning	<b><u>Reduce carbon emissions</u></b>			
	Energy efficiency and electrification from buildings (2030 goal: 365,000)	90,723	95,760	131,359
	Energy efficiency and electrification from transportation <sup>7</sup> (2030 goal: 1,000,000)	68,991	70,500	88,383
	<b><u>Procure Renewable Energy to achieve SMUD's Renewable Portfolio Standards requirements</u></b>			
	% of SMUD's Retail Sales (Statutes require: 44% by 2024, 52% by 2027, and 60% by 2030)	35.8%	35.8%	38.5%
SD-13 Economic Development	<b>Supplier Education and Economic Development (SEED) - Percent of Contract Dollars</b>	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 26-29<sup>th</sup> 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



Powering forward. Together.

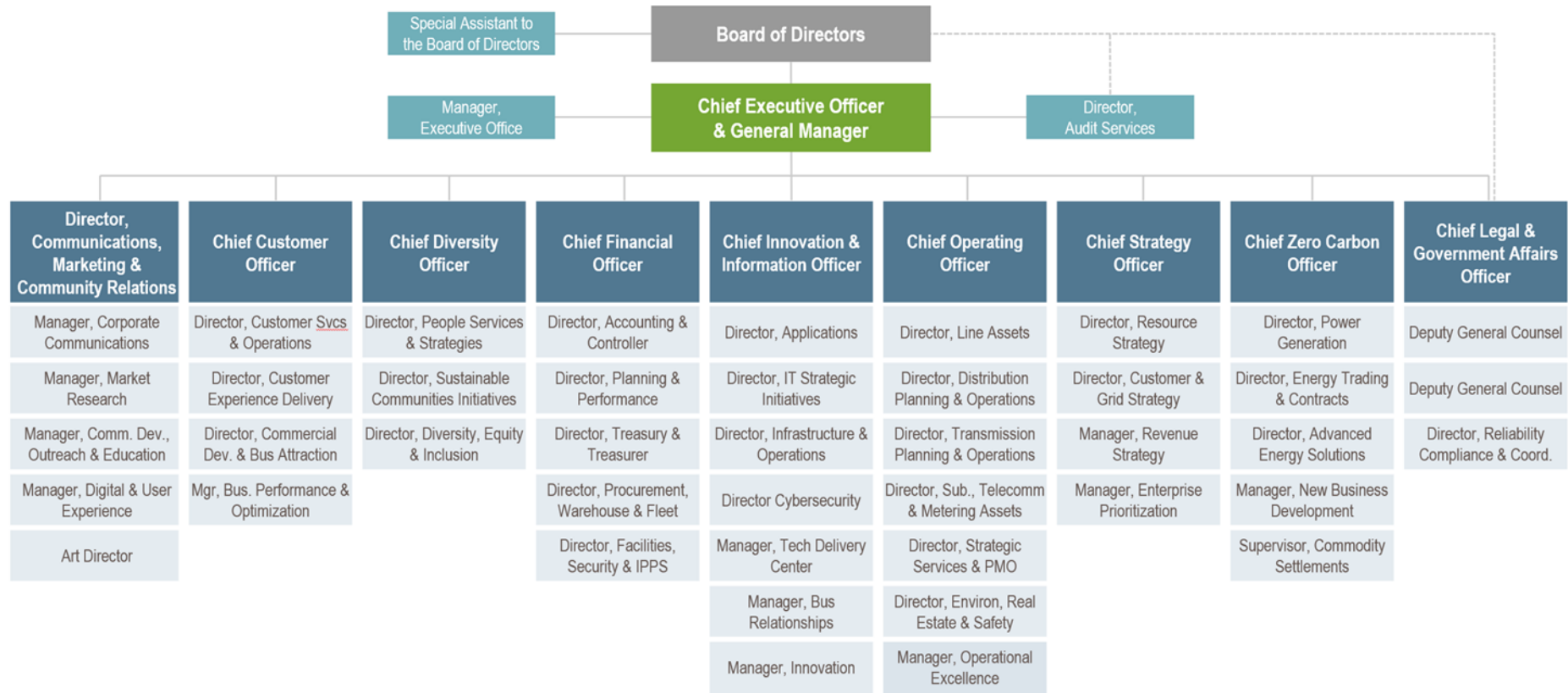


# Business Units & Segments

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

# Organization Chart by Executive



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

# 2022 Budget

## Economic Outlook & Assumptions



Powering forward. Together.



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
	<u>Budget</u>	<u>Customers</u>	<u>Budget</u>
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.



(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
<b>GENERATION</b>			
Total SMUD Generation (GWh)	6,820	7,410	590
SMUD Generation as a % of expected supply requirement	65%	70%	5%
<b>PURCHASED POWER</b>			
Net Purchased Power (GWh)	3,742	3,199	(543)
Net Purchased Power as % of expected supply requirement	35%	30%	-5%
<b>GAS</b>			
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%
<b>ACTUAL / FORWARD PRICES of UNCOMMITTED TRANSACTIONS</b>			
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.

(continued)

## Energy Requirements

Summary (GWh)	2021 Budget	2022 Proposed	Change vs Budget	Change vs Budget
<b>Generation:</b>	<b>GWh</b>	<b>GWh</b>	<b>GWh</b>	<b>GWh</b>
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%
<b>TOTAL - Generation</b>	<b>6,820</b>	<b>7,410</b>	<b>590</b>	<b>9%</b>
<b>Market Energy:</b>	<b>GWh</b>	<b>GWh</b>	<b>GWh</b>	<b>GWh</b>
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%
<b>TOTAL - Market Transactions</b>	<b>3,799</b>	<b>3,240</b>	<b>(559)</b>	<b>-15%</b>
<b>Transmission Losses</b>	<b>(58)</b>	<b>(41)</b>	<b>17</b>	<b>-29%</b>
<b>TOTAL - Supply Requirement</b>	<b>10,561</b>	<b>10,609</b>	<b>48</b>	<b>0%</b>

(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.

(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.

(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.

(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.

**Sutter Energy Center:** 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.

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

(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.



## 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.

# Budget Summary (continued)



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

**ALLOCATED:** Costs in 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.

## Description of Cost Categories

<b>Activity Type Labor</b>	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.
<b>Materials &amp; Equipment</b>	Materials and equipment either issued from inventory or purchased for a specific project or task.
<b>Dues &amp; Publications</b>	Dues and publications and general membership requirements to accomplish work.
<b>General Expenditures</b>	All services and other non-material costs not covered by other specific cost categories including training, travel, rents, leases, licenses, fees, taxes, etc.
<b>Outside Services</b>	The cost of outside services contracts, consultants, and outside legal service.
<b>Advertising</b>	The cost of advertising.
<b>Utilities &amp; Postage</b>	The cost of telephones, other utilities and postage.
<b>Insurance</b>	The cost of property and liability insurance.
<b>Rebates &amp; Incentives</b>	The cost of energy efficiency rebates and incentives.
<b>Commodities</b>	The cost of purchased power, wheeling, and fuel for SMUD and JPA generating plants.
<b>Surplus/Whsl Pwr Sales</b>	The revenue generated from selling energy which is not needed to meet SMUD retail load.
<b>LI/LS Rate Discount</b>	The discount given to customers who qualify for the Low Income or Medical Energy Discount (MED) rate subsidy.
<b>Cost Reductions/Reimb</b>	Reimbursements, cost-sharing grants, or pass-through amounts received from outside parties to reduce net costs.
<b>Cost Center Overhead</b>	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.
<b>Surcharges</b>	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
<b>Commodity (net)</b> <sup>[1]</sup>	<b>463,967</b>	<b>440,889</b>	<b>440,681</b>	<b>(208)</b>	<b>0%</b>
<i>Customer/Community (excl. PubGd)</i>	\$86,783	\$96,224	\$94,830	(\$1,394)	-1%
<i>Public Good</i>	9,874	10,557	7,661	(2,896)	-27%
<b>Customer/Community</b>	<b>96,657</b>	<b>106,781</b>	<b>102,491</b>	<b>(4,290)</b>	<b>-4%</b>
<b>Energy Delivery &amp; Operations</b>	<b>175,403</b>	<b>187,260</b>	<b>204,655</b>	<b>17,394</b>	<b>9%</b>
<i>Zero Carbon (excl. PubGd)</i>	132,272	144,105	159,135	15,030	10%
<i>JPA Interest Expense</i>	5,332	5,332	4,773	(559)	-10%
<i>Public Good</i>	35,179	53,062	51,776	(1,286)	-2%
<b>Zero Carbon Energy Solutions</b>	<b>172,783</b>	<b>202,499</b>	<b>215,684</b>	<b>13,186</b>	<b>7%</b>
<i>Energy Operations (excl. PubGd)</i>	12,788	11,943	16,861	4,919	41%
<i>Public Good</i>	447	627	609	(18)	-3%
<b>Enterprise Strategy</b>	<b>13,235</b>	<b>12,570</b>	<b>17,470</b>	<b>4,900</b>	<b>39%</b>
<i>Workforce (excl. PubGd)</i>	5,410	7,177	7,566	389	5%
<i>Public Good</i>	1,544	1,676	1,615	(61)	-4%
<b>Workforce, Diversity &amp; Inclusion</b>	<b>6,954</b>	<b>8,854</b>	<b>9,181</b>	<b>328</b>	<b>4%</b>
<b>Technology &amp; Innovation</b>	<b>34,451</b>	<b>38,906</b>	<b>36,476</b>	<b>(2,430)</b>	<b>-6%</b>
<i>Corporate (excl. PubGd)</i>	93,952	91,070	104,106	13,036	14%
<i>Public Good</i>	1,289	1,471	1,924	452	31%
<b>Corporate</b>	<b>95,242</b>	<b>92,541</b>	<b>106,029</b>	<b>13,488</b>	<b>15%</b>
<i>Enterprise (excl. PubGd)</i>	13,711	16,502	(9,184)	(25,686)	-156%
<i>Public Good</i>	0	700	0	(700)	-100%
<b>Enterprise</b>	<b>13,711</b>	<b>17,202</b>	<b>(9,184)</b>	<b>(26,386)</b>	<b>-153%</b>
<b>Other Employee Benefits</b> <sup>[2]</sup>	<b>(969)</b>	<b>32,704</b>	<b>40,359</b>	<b>7,655</b>	<b>23%</b>
<b>O&amp;M Budget Authorization</b>	<b>\$1,071,434</b>	<b>\$1,140,206</b>	<b>\$1,163,842</b>	<b>\$10,659</b>	<b>2%</b>
<b>Revenue</b>	<b>(70)</b>	<b>(25)</b>	<b>(25)</b>	<b>0</b>	<b>0%</b>
<b>O&amp;M Net</b>	<b>\$1,071,364</b>	<b>\$1,140,181</b>	<b>\$1,163,817</b>	<b>\$10,659</b>	<b>2%</b>

<sup>[1]</sup> Net of surplus sales. The 2022 Budget assumes median water year.

<sup>[2]</sup> 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
<b>ActivityType Labor</b>	<b>\$228,217</b>	<b>\$245,707</b>	<b>\$258,081</b>	<b>\$12,373</b>	<b>5%</b>
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%
<b>Non-Labor Expenditures</b>	<b>723,829</b>	<b>770,060</b>	<b>779,217</b>	<b>9,157</b>	<b>1%</b>
<b>Cost Reduction/Reimb</b>	<b>(22,560)</b>	<b>(62,552)</b>	<b>(63,922)</b>	<b>(1,370)</b>	<b>2%</b>
<b>Cost Center Overhead</b>	<b>52,845</b>	<b>54,115</b>	<b>50,655</b>	<b>(3,460)</b>	<b>-6%</b>
<b>Surcharges</b>	<b>84,740</b>	<b>94,840</b>	<b>94,679</b>	<b>(161)</b>	<b>0%</b>
<b>Expenditures Subtotal</b>	<b>1,067,071</b>	<b>1,102,170</b>	<b>1,118,710</b>	<b>16,540</b>	<b>2%</b>
<b>JPA Interest</b>	<b>5,332</b>	<b>5,332</b>	<b>4,773</b>	<b>(559)</b>	<b>-10%</b>
<b>Other Employee Benefits</b>	<b>(969)</b>	<b>32,704</b>	<b>40,359</b>	<b>7,655</b>	<b>23%</b>
<b>O&amp;M Budget Authorization [1]</b>	<b>\$1,071,434</b>	<b>\$1,140,206</b>	<b>\$1,163,842</b>	<b>\$23,636</b>	<b>2%</b>
<b>Revenue</b>	<b>(70)</b>	<b>(25)</b>	<b>(25)</b>	<b>0</b>	<b>0%</b>
<b>O&amp;M Net</b>	<b>\$1,071,364</b>	<b>\$1,140,181</b>	<b>\$1,163,817</b>	<b>\$23,636</b>	<b>2%</b>

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



# O&M Budget Summary (continued)

## Public Good

Description (\$000s)	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%
<b>Public Good Budget Authorization</b>	<b>\$48,334</b>	<b>\$68,094</b>	<b>\$63,585</b>	<b>(\$4,509)</b>	<b>-7%</b>
Rate Subsidy	34,369	40,021	35,024	(4,997)	-12%
<b>Total Public Good</b> <i>[1], [2]</i>	<b>\$82,703</b>	<b>\$108,115</b>	<b>\$98,609</b>	<b>(\$9,506)</b>	<b>-9%</b>

*[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) <sup>[1]</sup>	\$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%
<b>O&amp;M Commodities</b>	<b>\$474,782</b>	<b>\$440,889</b>	<b>\$440,681</b>	<b>(\$208)</b>	<b>0%</b>

<sup>[1]</sup> 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.

**Commodities:** 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.

# Capital Budget Summary

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%
<b>Capital Budget Authorization</b>	<b>\$301,000</b>	<b>\$390,903</b>	<b>\$359,911</b>	<b>(\$30,992)</b>	<b>-8%</b>
Revenue	(587)	0	(1,106)	(1,106)	100%
<b>Capital Net</b>	<b>\$300,414</b>	<b>\$390,903</b>	<b>\$358,805</b>	<b>(\$32,099)</b>	<b>-8%</b>

# Capital Budget Summary (continued)

Cost Category (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
<b>ActivityType Labor</b>	<b>\$59,362</b>	<b>\$62,642</b>	<b>\$80,620</b>	<b>\$17,977</b>	<b>29%</b>
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%
<b>Non-Labor Expenses</b>	<b>231,869</b>	<b>296,148</b>	<b>250,175</b>	<b>(45,973)</b>	<b>-16%</b>
<b>Cost Reduction/Reimb</b>	<b>(34,629)</b>	<b>(21,870)</b>	<b>(28,020)</b>	<b>(6,150)</b>	<b>28%</b>
<b>Expenditures</b>	<b>256,602</b>	<b>336,921</b>	<b>302,775</b>	<b>(34,146)</b>	<b>-10%</b>
<b>Cost Center Overhead</b>	<b>16,683</b>	<b>18,147</b>	<b>17,851</b>	<b>(297)</b>	<b>-2%</b>
<b>Surcharges</b>	<b>27,715</b>	<b>35,835</b>	<b>39,285</b>	<b>3,450</b>	<b>10%</b>
<b>Capital Budget Authorization</b>	<b>\$301,000</b>	<b>\$390,903</b>	<b>\$359,911</b>	<b>(\$30,992)</b>	<b>-8%</b>
<b>Revenue</b>	<b>(587)</b>	<b>0</b>	<b>(1,106)</b>	<b>(1,106)</b>	<b>100%</b>
<b>Capital Net</b>	<b>\$300,414</b>	<b>\$390,903</b>	<b>\$358,805</b>	<b>(\$32,099)</b>	<b>-8%</b>

# Capital Budget Summary (continued)

---



**Capital:** 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.



# Allocated Budget Summary

Description (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% 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%
<b>Total Allocated Budget</b> <i>[1]</i>	<b>\$121,802</b>	<b>\$131,316</b>	<b>\$133,102</b>	<b>\$1,786</b>	<b>1%</b>

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

# Allocated Budget Summary (continued)



Cost Category (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	\$ Change vs Budget
<b>ActivityType Labor</b>	<b>\$59,391</b>	<b>\$65,899</b>	<b>\$64,275</b>	<b>(\$1,624)</b>	<b>-2%</b>
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%
<b>Non-Labor Expenses</b>	<b>44,381</b>	<b>44,260</b>	<b>48,953</b>	<b>4,693</b>	<b>11%</b>
<b>Cost Reduction/Reimb</b>	<b>(500)</b>	<b>(436)</b>	<b>(107)</b>	<b>329</b>	<b>75%</b>
<b>Expenditures</b>	<b>103,271</b>	<b>109,723</b>	<b>113,121</b>	<b>3,398</b>	<b>3%</b>
<b>Cost Center Overhead</b>	<b>14,425</b>	<b>15,437</b>	<b>14,155</b>	<b>(1,282)</b>	<b>-8%</b>
<b>Surcharges</b>	<b>4,105</b>	<b>6,155</b>	<b>5,826</b>	<b>(330)</b>	<b>-5%</b>
<b>Total Allocated Budget</b> [1]	<b>\$121,802</b>	<b>\$131,316</b>	<b>\$133,102</b>	<b>\$1,786</b>	<b>1%</b>

[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)
<b>Full-time</b>				<b>2,157</b>				<b>2,210</b>	<b>53</b>
<b>Limited Term</b>				<b>92</b>				<b>39</b>	<b>(53)</b>
<b>Part-time</b>				<b>198</b>				<b>203</b>	<b>5</b>
<b>SMUD Total</b>	<b>2,157</b>	<b>92</b>	<b>198</b>	<b>2,447</b>	<b>2,210</b>	<b>39</b>	<b>203</b>	<b>2,452</b>	<b>5</b>

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

# Labor Cost Summary

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%
<b>Salaries &amp; Wages*</b>	\$264,639	\$281,710	\$295,685	\$7,167	5.0%
	<b>Overtime</b>	\$21,961	\$17,913	\$1,474	10.0%
<b>SMUD TOTAL</b>	<b>\$286,600</b>	<b>\$299,623</b>	<b>\$315,391</b>	<b>\$15,768</b>	<b>5.3%</b>

\*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.

# Benefits Summary

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%
<b>Subtotal Health &amp; Welfare</b>	<b>\$45,109</b>	<b>\$57,317</b>	<b>\$59,234</b>	<b>\$1,916</b>	<b>3%</b>
FICA Contribution	21,437	22,472	23,654	1,183	5%
Retirement Contribution	119,940	71,159	68,155	(3,004)	-4%
<b>Subtotal FICA and Retirement</b>	<b>\$141,377</b>	<b>\$93,631</b>	<b>\$91,809</b>	<b>(\$1,821)</b>	<b>-2%</b>
<b>TOTAL</b>	<b>\$186,486</b>	<b>\$150,948</b>	<b>\$151,043</b>	<b>\$95</b>	<b>0%</b>

**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

Powering forward. Together.



# Debt Service Budget

---

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.

**Commercial Paper Interest** 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.

**Scheduled Principal Repayments** 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 Budget (continued)

Debt Service (\$000s)	2021 Forecast	2021 Budget	2022 Proposed	\$ Change vs Budget	% Change vs Budget
Interest Expense <sup>1</sup>	\$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%
<b>Total Debt Service</b>	<b>\$215,131</b>	<b>\$217,544</b>	<b>\$215,754</b>	<b>(\$1,790)</b>	<b>0%</b>
Allocated to JPAs	(3,812)	(3,812)	(3,596)	216	-6%
<b>NET DEBT SERVICE</b>	<b>\$211,319</b>	<b>\$213,732</b>	<b>\$212,158</b>	<b>(\$1,574)</b>	<b>0%</b>

[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
<b>Electric Revenue Bonds</b>						
Jun-97	Series K <sup>1</sup>	55,835	5.25% to 5.90%	2024	17,670	90
May-09	Series V <sup>2</sup>	200,000	6.322% (4.11% net)	2036	-	12,644
Jul-10	Series W <sup>3</sup>	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 <sup>4</sup> (Refunding)	106,875	5.00%	2028	10,655	5,142
Jul-22	Series J	157,785	2.06%	2032	-	1,451
	<b>Subtotal</b>	<u>1,966,925</u>			<u>100,150</u>	<u>99,170</u>
<b>Subordinated Electric Revenue Bonds</b>						
Jul-19	Series A	100,000	5%	2049	-	5,000
Jul-19	Series B	100,000	5%	2049	-	5,000
	<b>Subtotal</b>	<u>200,000</u>			<u>-</u>	<u>10,000</u>
	Total Outstanding Bonds	<u>2,166,925</u>	Principal & Interest Payments		<u>100,150</u>	<u>109,170</u>
	<b>Total Debt Service</b>				<b><u>100,150</u></b>	<b><u>109,170</u></b>

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



Powering forward. Together.



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. 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
<b>Operating Revenues:</b>			
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
<b>TOTAL OPERATING REVENUES</b>	<b>1,588.2</b>	<b>1,547.3</b>	<b>1,601.3</b>
<b>Operating Expenses:</b>			
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
<b>Total Operations</b>	<b>1,106.1</b>	<b>1,180.2</b>	<b>1,198.8</b>
Depreciation, Depletion, and Amortization	217.4	220.4	222.6
<b>TOTAL OPERATING EXPENSES</b>	<b>1,323.5</b>	<b>1,400.6</b>	<b>1,421.4</b>

**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
<b>Other (Income) Expenses:</b>			
Interest Income and Other	(\$3.2)	(\$17.9)	(\$14.0)
Other Non Cash	(10.7)	(12.8)	(15.1)
<b>TOTAL INTEREST INCOME &amp; OTHER</b>	<b>(13.8)</b>	<b>(30.8)</b>	<b>(29.1)</b>
<b>Interest Expense:</b>			
Interest expense	97.0	99.9	92.6
<b>NET INTEREST CHARGES</b>	<b>97.0</b>	<b>99.9</b>	<b>92.6</b>
<b>CHANGE IN NET POSITION - NET INCOME (LOSS)</b>	<b>\$181.6</b>	<b>\$77.6</b>	<b>\$116.4</b>
Interest Payments	114.9	114.8	110.1
Principal Payments	113.0	113.0	115.6
<b>TOTAL FIXED COSTS</b>	<b>227.9</b>	<b>227.8</b>	<b>225.8</b>
<b>Cash Available to Pay Fixed Costs</b>	<b>482.4</b>	<b>409.6</b>	<b>435.7</b>
<b>FIXED CHARGE COVERAGE RATIO</b>	<b>2.12</b>	<b>1.80</b>	<b>1.93</b>
<b>RATE STABILIZATION FUND</b>	<b>69.1</b>	<b>34.0</b>	<b>69.1</b>

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

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

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

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

**Customer & Community:** The Customer & Community Services budget includes all residential and commercial customer-focused 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.

**Workforce, Diversity & Inclusion:** 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.

**Technology & Innovation:** 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.

**Corporate Services:** 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.

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

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

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

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

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

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

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

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

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

# Business Forecast (continued)

## Pro Forma Statement of Cash Flows

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

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).