Board of Directors
Meeting
Agenda

Date: October 20, 2022
Time: 5:30 p.m.
Location: Virtual Meeting (online)
AGENDA

SACRAMENTO MUNICIPAL UTILITY DISTRICT
BOARD OF DIRECTORS MEETING

Pursuant to Government Code section 54953(e) and the Emergency Board Meeting Procedures adopted by the SMUD Board of Directors, the regular Board meeting and other public meetings are currently conducted solely via virtual (online/teleconference) meeting to align with state, local, and federal guidelines for the containment of the coronavirus.

Live video streams and indexed archives of meetings are available at: http://smud.granicus.com/ViewPublisher.php?view_id=16

Members of the public may register to provide verbal comments at an upcoming Board or Committee meeting by e-mailing a request to speak to PublicComment@smud.org. Please include the date of the meeting, name, and topic or agenda item the requestor wishes to speak on. The request may also be submitted while the meeting is in progress during the standard time for the agenda item or topic. Pre-registration is strongly encouraged by no later than 3:00 p.m. on the day of the meeting.

Members of the public may provide written public comments on a specific agenda item or on items not on the agenda (general public comment) by submitting comments via e-mail. Comments may be submitted to PublicComment@smud.org and will be placed into the record of the meeting.

Members of the public that are listening to or watching the live stream of a Board meeting and wish to submit written comments on a specific agenda item as it is being heard may submit their comments, limited to 250 words or less, to PublicComment@smud.org, noting the agenda item number in the subject line. The Board President may read comments for items on the agenda into the record, in his discretion, based upon such factors as the length of the agenda or the number of e-mail comments received. General public comment for items not on the agenda will not be read into the record but will be provided to the Board and placed into the record of the Board meeting if it is received within two hours after the meeting ends.

October 20, 2022 – 5:30 p.m.

Zoom Webinar Link: Join SMUD Board of Directors Meeting Here
Webinar/Meeting ID: 161 365 4516
Passcode: 648099

Phone Dial-in Number: 1-669-254-5252 or 1-833-568-8864 (Toll Free)

Call to Order.
   a. Roll Call.

1. Approval of the Agenda.
2. **Committee Chair Reports.**

   a. Committee Chair report of October 11, 2022, Strategic Development Committee  
   b. Committee Chair report of October 12, 2022, Policy Committee  
   c. Committee Chair report of October 18, 2022, Finance and Audit Committee  
   d. Committee Chair report of October 19, 2022, Energy Resources & Customer Services Committee

Items 5 through 8 were reviewed by the October 12, 2022, Policy Committee. Items 9 through 15 were reviewed by the October 18, 2022, Finance and Audit Committee. Items 16 through 18 were reviewed by the October 19, 2022, Energy Resources & Customer Services Committee.

*Comments from the public are welcome when these agenda items are called.*

**Consent Calendar:**

3. Approve Board member compensation for service rendered at the request of the Board (pursuant to Resolution 18-12-15) for the period of September 16, 2022, through October 15, 2022.

4. Approval of the minutes of the meeting of September 15, 2022.

5. Make findings pursuant to Government Code section 54953(e) to continue holding meetings virtually during proclaimed state of emergency (recurring item, every 30 days).  
   Policy Committee 10/12. *(Laura Lewis)*

6. Accept the monitoring report for **Strategic Direction SD-6, Safety Leadership.**  
   Policy Committee 10/12. *(Frankie McDermott)*

7. Accept the monitoring report for **Strategic Direction SD-10, Innovation.**  
   Policy Committee 10/12. *(Lora Anguay)*

8. Accept the monitoring report for **Strategic Direction SD-19, Diversified Business.**  
   Policy Committee 10/12. *(Scott Martin)*

9. Accept the monitoring report for **Strategic Direction SD-13, Economic Development Policy.**  
   Finance and Audit Committee 10/18. *(Dr. Markisha Webster)*

10. Discuss the policy and process for **Strategic Direction SD-14, System Enhancement (SD-14)** and accept the monitoring report for **SD-14.**  
    Finance and Audit Committee 10/18. *(Frankie McDermott)*

11. Approve amendment to the SMUD **2022 Budget Resolution** to augment the Commodity line item by $309.3 million.  
    Finance and Audit Committee 10/18. *(Jennifer Davidson)*

12. Approve an increase to the aggregate contract not-to-exceed amount for fleet bulk fuel and fleet fuel card program services by $12,481,000, from $16 million to $28.48 million, for Contract Nos. 4600001005 and 4500097459 with **Ramos Oil Company, Inc.**  
    Finance and Audit Committee 10/18. *(Jennifer Davidson)*
13. Approve an increase to the aggregate contract not-to-exceed amount for general line construction services by $20 million, from $20 million to $40 million, for Contract No. 4600001474 with Hot Line Construction, Inc. and Contract No. 4600001475 with Mountain G Enterprises. Finance and Audit Committee 10/18. (Jennifer Davidson)

14. Approve an increase to the aggregate contract not-to-exceed amount for Upper American River Project (UARP) Reservoir Project Wildfire Risk Reduction services by $5 million, from $8 million to $13 million, for Contract No. 4600001538 with TSU-Tree Service Unlimited, Inc., Contract No. 4600001539 with Mountain F. Enterprises, Inc., and Contract No. 4600001540 with The Original Unlimited Tree Service Co. Finance and Audit Committee 10/18. (Jennifer Davidson)

15. a. Approve contract change to Contract No. 4500110473 with United Health Care Insurance Company approving 2023 medical insurance premium rates and extending the contract by one year for the period January 1, 2023, through December 31, 2023; 2023 cost estimated at $37.4 million; and

b. Approve contract change to Contract No. 4500043215 with Kaiser Permanente approving 2023 medical insurance premium rates and extending the contract by one year for the period January 1, 2023, through December 31, 2023; 2023 cost estimated at $27.8 million.

Finance and Audit Committee 10/18. (Dr. Markisha Webster)

16. Initiate consideration of two new federal standards in accordance with the Public Utility Regulatory Policies Act of 1978 (PURPA): Demand-Response Practices (Section 111(d)(20)) and Electric Vehicle Charging Programs (Section 111(d)(21)). Energy Resources & Customer Services Committee 10/19. (Laura Lewis)

17. Accept the monitoring report for Strategic Direction SD-7, Environmental Leadership. Energy Resources & Customer Services Committee 10/19. (Frankie McDermott)


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Informational Item:

19. Provide the Board with SMUD’s financial results from the eight-month period ended August 31, 2022.

Presenter: Lisa Limcaco

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Public Comment:

20. Items not on the agenda.
Board and CEO Reports:

21. Directors' Reports.

22. President's Report.

23. CEO's Report.
   a. Board Video

Summary of Board Direction

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FOLLOWING ADJOURNMENT OF THE FOREGOING SMUD BOARD OF DIRECTORS MEETING, A SPECIAL MEETING OF THE FOLLOWING JOINT POWERS AGENCY WILL CONVENE:

SACRAMENTO MUNICIPAL UTILITY DISTRICT FINANCING AUTHORITY

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Board Committee Meetings and Special Meetings of the Board of Directors are held at the SMUD Headquarters Building, 6201 S Street, Sacramento

The SMUD Board of Directors is currently operating under Emergency Board Meeting Procedures. In accordance with findings made by the Board pursuant to Government Code section 54953(e), these meetings may be held virtually (online).

October 18, 2022  Finance and Audit Committee and Special SMUD Board of Directors Meeting  TBD  5:30 p.m.

October 19, 2022  Energy Resources & Customer Services Committee and Special SMUD Board of Directors Meeting  TBD  5:30 p.m.

November 15, 2022  Finance and Audit Committee and Special SMUD Board of Directors Meeting  TBD  5:30 p.m.

November 15, 2022  Energy Resources & Customer Services Committee and Special SMUD Board of Directors Meeting  TBD  Immediately following the Finance and Audit Committee and Special SMUD Board of Directors Meeting scheduled to begin at 5:30 p.m.
2023 Budget Review

The SMUD Board of Directors is currently operating under Emergency Board Meeting Procedures. In accordance with findings made by the Board pursuant to Government Code section 54953(e), these meetings may be held virtually (online).

November 8, 2022
SMUD 2023 Proposed Budget.  TBD  5:30 p.m.

a. SMUD 2023 Proposed Budget Overview, including Debt Service, Pay Schedule and Special Compensation, and Corporate Services 2023 Proposed Budget.

November 9, 2022
2023 Proposed SMUD Budget.  TBD  5:30 p.m.

c. Information Technology 2023 Proposed Budget.

2023 Proposed Joint Power Authority Budgets.

a. Northern California Energy Authority (NCEA) 2023 Proposed Budget.
b. Northern California Gas Authority Number 1 (NCGA1) 2023 Proposed Budget.

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Regular Meetings of the Board of Directors are held at the SMUD Headquarters Building, 6201 S Street, Sacramento

The SMUD Board of Directors is currently operating under Emergency Board Meeting Procedures. In accordance with findings made by the Board pursuant to Government Code section 54953(e), these meetings may be held virtually (online).

November 17, 2022  
TBD  
5:30 p.m.

Pursuant to Resolution No. 20-06-08 adopted on June 18, 2020, Emergency Board Meeting Procedures are in effect:

Members of the public may make either a general public comment or comment on a specific agenda item by submitting comments via email. Comments may be submitted to PublicComment@smud.org. Comments will be provided to the Board and placed into the record of the Board meeting if it is received within two hours after the meeting ends.

Members of the public that are listening or watching the live stream of a Board meeting and wish to comment on a specific agenda item as it is being heard, may submit their comments, limited to 250 words or less, to PublicComment@smud.org. The Board President may read the comments into the record, in his discretion, based upon such factors as the length of the agenda, the number of email comments received, and whether the Board is in danger of losing a quorum. Comments will be provided to the Board and placed into the record of the Board meeting if it is received within two hours after the meeting ends.

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ADA Accessibility Procedures: Upon request, SMUD will generally provide appropriate aids and services leading to effective communication for qualified persons with disabilities so that they can participate equally in this virtual meeting. If you need a reasonable auxiliary aid or service for effective communication to participate, please email Toni.Stelling@smud.org, or contact by phone at (916) 732-7143, no later than 48 hours before this virtual meeting.
RESOLUTION NO. ______________

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

That this Board hereby approves Board member compensation for service rendered at the request of the Board (pursuant to Resolution 18-12-15) for the period of September 16, 2022, through October 15, 2022.
The Board of Directors of the Sacramento Municipal Utility District met in regular session via virtual meeting (online) at 5:29 p.m.

Roll Call:

Presiding: President Rose

Present: Directors Bui-Thompson, Fishman, Herber, Kerth, Tamayo, and Sanborn

Present also were Laura Lewis, acting Chief Executive Officer and General Manager; Joe Schofield, Deputy General Counsel and Assistant Secretary, and members of SMUD’s executive management; and SMUD employees and visitors.

Director Tamayo shared the environmental tip.

President Rose called for approval of the agenda. Director Kerth moved for approval of the agenda, Director Herber seconded, and the agenda was unanimously approved.

Director Herber, Chair, presented the report on the Finance and Audit Committee meeting held on September 13, 2022.

Director Fishman, Chair, presented the report on the Energy Resources & Customer Services Committee meeting held on September 14, 2022.

President Rose then called for public comment for items on the agenda, but none were forthcoming.

President Rose then addressed the consent calendar consisting of Items 3 and 9. Director Bui-Thompson moved for approval of the consent calendar, Director Fishman seconded, and Resolution Nos. 22-09-01 through 22-09-06 were unanimously approved.
RESOLUTION NO. 22-09-01

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

That this Board hereby approves Board member compensation for
service rendered at the request of the Board (pursuant to Resolution 18-12-15)
for the period of August 16, 2022, through September 15, 2022.

Approved: September 15, 2022

INTRODUCED: DIRECTOR BUI-THOMPSON
SECONDED: DIRECTOR FISHMAN

DIRECTOR AYE NO ABSTAIN ABSENT
ROSE X
BUI-THOMPSON X
FISHMAN X
HERBER X
KERTH X
TAMAYO X
SANBORN X
WHEREAS, in September 2019, the Legislature approved Assembly Bill 689 amending section 12773 of the California Public Utilities Code ("MUD Act") effective January 1, 2020, to January 1, 2025, granting SMUD authority to hold nonstock security in a corporation or other private entity if the security is acquired as part of a procurement of goods or services from that entity, provided no separate funding is expended solely for the nonstock security, and not more than three nonstock security acquisitions are made during the effective period; and

WHEREAS, by Resolution No. 20-12-11, adopted on December 10, 2020, this Board authorized SMUD to operate a pilot project and policy governing the acquisition of nonstock security, the Nonstock Security Pilot Project Program ("Policy"), from January 1, 2020, to January 1, 2025; and

WHEREAS, SMUD policy for the acquisition of nonstock security is set forth in the Policy guidelines and minor changes to the guidelines are requested in Section 2. Definitions to define "Financial Interest" (which had previously been undefined); and

WHEREAS, Section 3. Conflict of interest of the Policy includes detailed requirements to address the Legislature’s concern of financial self-dealing, as it may relate to SMUD’s authority to acquire nonstock security; and

WHEREAS, as currently written, Section 3. may broadly prevent SMUD from using reasonable and lawful due diligence to determine whether to enter into a particular acquisition; and

WHEREAS, staff’s recommendation is to revise Section 2. of the Policy to define "Financial Interest” and Section 3. of the Policy to clarify the strict parameters under which SMUD may use non-public information, and to ensure the Policy both allows for informed acquisition of the nonstock security while affirmatively prohibiting insider trading; NOW, THEREFORE,
BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:

Section 1. This Board approves the revisions to Section 2.

Definitions and Section 3. Conflict of interest of the Nonstock Security Pilot Project Program (“Policy”), substantially in the form as set forth in Attachment A, with all other Policy provisions remaining in full force and effect.

Approved: September 15, 2022
Pilot Project Program Description

1. **Purpose:** To provide an opportunity for a return on investment from SMUD’s contribution to the development of goods or services procured from a corporation or private entity, consistent with Strategic Directives (SD-10: Innovation, SD-13: Economic Development, and SD-19: Diversified Business).

2. **Definitions:**

   **Acquisition** – An act of obtaining an asset.

   **Financial Interest** – Any monetary interest that is equal to or exceeds the ownership of 3 percent of the shares of a corporation for profit, provided that the total annual income to them from dividends, including the value of stock dividends, from the corporation does not exceed 5 percent of their total annual income, and any other payments made to them by the corporation do not exceed 5 percent of their total annual income.

   **Nonstock Security** – A “security,” as defined in Section 25019 of the California Corporations Code, that is not a stock.

   **Stock** – A distinct type of security that specifically includes an ownership interest in a corporation, where the owner is entitled to participate in: (i) the company’s management (e.g., has a voting right); (ii) a proportionate share of profits; and (iii) distribution of assets upon dissolution of the company. Its unit of measurement is the share.

3. **Conflict of interest:** To avoid any potential conflict or perceived conflict of interest and to prevent violations of applicable conflict of interest rules including Cal. Gov’t Code § 1090, et seq.; the Political Reform Act (Cal. Gov’t Code § 81000, et seq.); and the Fair Political Practices Commission Regulations (Cal. Code of Regulations § 18700, et seq.), SMUD shall not enter into an agreement to acquire a nonstock security interest in a corporation or private entity under any of the following situations:

   a. A board member, or spouse or dependent child of the board member, has a financial interest in the corporation or private entity.
b. A board member, or spouse or dependent child of the board member, has a personal or familial relationship with any officer or employee of the corporation or private entity.

c. An executive officer of SMUD, or spouse or dependent child of the officer, has a financial interest in the corporation or private entity.

Board members and certain other SMUD staff are each to file annually a Statement of Economic Interests (Form 700) to ensure that those public agency officials are disclosing certain financial interests in a manner that is transparent. It also serves as a reminder for public agency officials and employees to abstain from participating in decisions, including agreements, that could enhance their personal finances in a manner that is inconsistent with law or policy.

Prior to entering into an acquisition agreement, SMUD shall review Board members’ most recent financial disclosure filing for potential financial conflicts of interest related to the acquisition.

Further, existing federal and state laws prohibit individuals from purchasing or selling a security when that individual knows material, non-public information about a company which would significantly affect the market price of the security in that company (e.g., company stock price). To avoid any appearance or accusation of insider trading, SMUD shall not use such material non-public information for any purpose other than to evaluate the proposed transaction including, but not limited to, the acquisition of nonstock security interest in such corporation or private entity. In addition, SMUD shall not trade (purchase or sell) the securities of such corporation or private entity so long as it is in possession of such material information that has not first been made public.

4. **Determination of how much of nonstock security to accept:** Prior to SMUD’s acquiring any nonstock security, the Business Unit initiating the procurement of the underlying goods or services shall, in consultation with New Business Development and Treasury Departments, ensure that:

   a. SMUD, overall, receives a reasonable return for SMUD’s investment, considering, at a minimum, the value of the following: (i) use of any SMUD intellectual property; (ii) SMUD’s investment of staff time; and (iii) use of SMUD facilities for field testing; and

   b. The value of the nonstock security acquisition does not unduly influence the amount paid for the associated goods and services.
5. **Payment of associated goods or services:** SMUD may only hold nonstock security in a corporation or private entity if acquired as part of a procurement of goods or services from that entity. The price paid for such goods or services should not be increased due to the availability of acquiring nonstock security in that corporation or private entity. SMUD is not “purchasing” the nonstock security, so no cash will be exchanged solely for the acquisition of the nonstock security. Any acquisition of nonstock security is incidental to the procurement of goods or services.

6. **Approval for acquisition:** The Chief Executive Officer and General Manager shall seek Board approval prior to entering into an acquisition agreement.

7. **Reporting to the Board:** Staff shall report annually to the Board on the status of this Pilot Project Program and any related acquisitions.

8. **Management of Security:** All decisions and administrative actions concerning the management of any security issued to SMUD by a corporation or other private entity shall be recommended by the Chief Financial Officer or her delegatee and approved by the Board. This includes decisions on when the security will be exercised or converted to cash. The Chief Financial Officer shall carry out this function consistent with her delegated investment authority.

9. **Distribution of Security Interest:** Upon such time that SMUD’s security interest is sold for cash, the proceeds will be received and recorded by SMUD accounting, indicating the source of funds. SMUD’s subsequent use of any cash proceeds shall be in accordance with SMUD policies and to benefit SMUD ratepayers.

10. **Related Reference:** SD-10 Innovation; SD-13 Economic Development; SD-19 Diversified Business; BL-8 Procurement; BL-14 Products, Services and Programs
RESOLUTION NO. 22-09-03

WHEREAS, by Resolution No. 20-12-11, adopted on December 10, 2020, and pursuant to California Public Utilities Code section 12773 (the “MUD Act”), this Board established SMUD’s Nonstock Security Pilot Project whereby SMUD may hold nonstock security in a corporation or other private entity if acquired as part of a procurement of goods or services from that entity; and

WHEREAS, SMUD is poised to enter into a new strategic collaboration with ESS Tech, Inc. (ESS), in accordance with Board-Staff Linkage BL-14, Delegation to the Chief Executive Officer and General Manager with Respect to Products, Services and Programs (BL-14) to accelerate the adoption of long duration energy storage technology in SMUD’s service territory in support of SMUD’s 2030 Zero Carbon Plan; and

WHEREAS, as part of SMUD’s procurement of ESS technology and equipment, SMUD will acquire nonstock security in ESS in compliance with the requirements contained in SMUD’s Nonstock Security Pilot Project Program; and

WHEREAS, ESS designs, builds and deploys environmentally sustainable, low-cost iron flow batteries for long-duration commercial and utility scale energy storage applications requiring flexible energy capacity; and

WHEREAS, the goals of the collaboration with ESS include neighborhood and critical infrastructure resiliency, reducing thermal generation, maximizing local solar generation and utilization, and supporting workforce development; and

WHEREAS, under the joint collaboration agreement, SMUD and ESS will work together on a multi-year project that may culminate in an aggregate phased deployment of up to 200MW/2GWh of long duration energy storage by 2028; and

WHEREAS, this Board finds the collaboration with ESS and associated acquisition of nonstock security to be consistent with the public purpose of SMUD, as a Municipal Utility District; and
WHEREAS, this Board finds the nonstock security acquisition in ESS, as part of the procurement of ESS equipment and services, is in the best interests of SMUD, its ratepayers and the community as it will (1) promote carbon reduction, clean energy, and other environmentally sustainable technologies that will help foster a better environment for the Sacramento community and beyond, (2) fairly compensate ratepayers for their community investment in such technologies by creating a revenue stream that may potentially offset future rate increases, and (3) encourage economic development which may lead to job growth in the Sacramento region; NOW, THEREFORE.

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

Section 1. That this Board authorizes the Chief Executive Officer and General Manager, or his designee, to enter into a joint collaboration agreement with ESS Tech, Inc. (ESS) to accelerate adoption of long duration energy storage technology in SMUD’s service territory.

Section 2. That this Board authorizes the Chief Executive Officer and General Manager, or his designee, to enter into, on behalf of SMUD, an acquisition agreement for nonstock security in ESS, subject to the requirements of California Public Utilities Code section 12773.

Section 3. The Chief Executive Officer and General Manager, or his designee, is authorized to make future changes to the agreements that, in his prudent judgment: (a) further the primary purpose of the agreements; (b) are intended to provide a net benefit to SMUD; and (c) for, the acquisition agreement, do not exceed the authorized amounts stated in California Public Utilities Code section 12773.

Approved: September 15, 2022

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WHEREAS, Community Choice Aggregation (CCA) was created in California by Assembly Bill 117 (2002), which authorized local governments to aggregate customer electric load and purchase electricity for customers in the service territories of investor-owned utilities; and

WHEREAS, Marin Clean Energy (MCE) is a CCA established in 2010 by a joint powers authority which serves approximately 588,000 residential and commercial electricity customers across a service area comprised of 37 communities in four counties: Contra Costa, Marin, Napa, and Solano; and

WHEREAS, for more than 75 years as a community-owned electric utility, SMUD has performed many of the same services for our own service territory required by MCE, and since 2018 has provided similar services for other CCAs include Valley Clean Energy (VCE) and East Bay Community Energy (EBCE); and

WHEREAS, SMUD submitted a comprehensive proposal in response to a Request for Proposals for services including data management, billing, analytics, systems assessment and other related consulting services; and

WHEREAS, MCE selected SMUD as the winner on July 5, 2022, and the MCE Board’s vote to award SMUD the contract is scheduled for September 15, 2022; and

WHEREAS, staff believes providing MCE services will present both net financial benefits for SMUD, as well as foster public power and regional clean energy solutions; and

WHEREAS, the proposed services leverage the systems and services already in place for VCE and EBCE, which contribute to increased net revenue for SMUD and economies of scale in our CCA service offerings; and

WHEREAS, SMUD will ensure that our financial viability, internal operations, and customer service portfolios are not adversely affected by providing MCE services; and

WHEREAS, the Municipal Utility District Act (MUD Act) grants SMUD broad authority to provide services related to light, heat, and power, and
take all acts necessary and convenient for the full exercise of the powers therein; and

WHEREAS, the MUD Act authorizes SMUD to provide competitive services and commodities within or outside of our service territory; and

WHEREAS, providing services to MCE to meet their energy objectives is a valid exercise of SMUD’s authority; and

WHEREAS, SMUD will ensure that our financial viability, internal operations, and customer service portfolio are not adversely affected by providing MCE services, NOW, THEREFORE,

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

Section 1. The Chief Executive Officer and General Manager, or his designee, is authorized to enter into a contract with the Marin Clean Energy (MCE) to provide Community Choice Aggregation (CCA) data management and related services.

Section 2. The Chief Executive Officer and General Manager, or his designee, is authorized to enter into vendor contracts to facilitate the ongoing operations of MCE provided that no individual contract shall exceed $1 million.

Approved: September 15, 2022
WHEREAS, Community Choice Aggregation (CCA) was created in California by Assembly Bill 117 (2002), which authorized local governments to aggregate customer electric load and purchase electricity for customers in the service territories of investor-owned utilities; and

WHEREAS, since 2018, SMUD has provided data management services to CCAs, including Valley Clean Energy and East Bay Community Energy, and plans to expand such services to Marin Clean Energy and potentially other CCAs in the future; and

WHEREAS, in conjunction with the provision of data management services, SMUD has entered into contracts for technology platform subscription services (Agreements) to support SMUD’s CCA business; and

WHEREAS, the original subscription terms of these Agreements are approaching expiration and these Agreements are critical to maintaining the CCA business; and

WHEREAS, leveraging existing systems and services contributes to increased net revenue for SMUD and economies of scale in our CCA service offerings; and

WHEREAS, transitioning at this time from separate CCA-specific delegations to a general CCA delegation for technology platform subscription services contracts is in the best interests of SMUD; and

WHEREAS, staff recommends entering into contracts for technology platform subscription services until such time as it is determined to be in the best interests of SMUD to change or no longer support the CCA business model; and

WHEREAS, subscription fees for future years will be approved by the Board as part of the annual budget; NOW, THEREFORE,

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

Section 1. That this Board authorizes the Chief Executive Officer and General Manager, or his designee, to negotiate and enter into Community
Choice Aggregation (CCA) technology platform subscription services that support all CCAs for whom SMUD provides services.

Section 2. Subscription fees for future years will be approved by this Board with the approval of the annual budget.

Approved: September 15, 2022

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RESOLUTION NO. 22-09-06

WHEREAS, SMUD is committed to preserving public access and participation in meetings of the Board of Directors and to the safety of meeting attendees; and

WHEREAS, all meetings of the Board of Directors are open and public, as required by the Ralph M. Brown Act (Gov’t Code, §§ 5495054963) ("Brown Act"), so that any member of the public may attend, participate in, and watch SMUD’s governing body conduct its business; and

WHEREAS, the newly enacted Government Code section 54953(e) authorizes a local agency’s governing body, during a proclaimed state of emergency, to participate in its public meetings using remote teleconferencing without compliance with the requirements of Government Code section 54953(b)(3), under specified conditions; and

WHEREAS, a required condition is that a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558; and

WHEREAS, another condition is that state or local officials have imposed or recommended measures to promote social distancing, or, the legislative body determines that meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, on February 28, 2022, the California Department of Public Health rescinded the mask requirement effective March 1, 2022, for all individuals regardless of vaccination status and instead issued a strong recommendation that all persons, regardless of vaccine status, continue indoor masking; and

WHEREAS, the Sacramento County Department of Public Health on its Epidemiology COVID-19 Dashboard continues to show elevated case and death data, and this is supported by ongoing wastewater sampling; and
WHEREAS, Sacramento County currently has medium community transmission rates for COVID-19 as defined by the Centers for Disease Control and Prevention, and all surrounding counties are classified as medium to high; and

WHEREAS, on April 21, 2022, the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) re-adopted its workplace COVID-19 Emergency Temporary Standards (ETS), as modified, effective May 6, 2022, through December 31, 2022, including outbreak reporting; and

WHEREAS, SMUD is incrementally reintroducing staff to its administrative buildings, staff infections continue to be reported with some consistency, and, under the current schedule, the majority will not return to working on-site until August or September 2022; and

WHEREAS, SMUD Board and Committee meetings can last as long as four hours, with participants sitting in the same room sharing air the entire time; and

WHEREAS, it would be impractical for SMUD to take steps necessary to prevent imminent risks to the health and safety of attendees, such as by holding public meetings outdoors, ensuring public meeting attendees are vaccinated, have appropriate face coverings, and wear them consistent with public health guidance; and

WHEREAS, all meetings, agendas, meeting dates, times, and manner in which the public may participate in the public meetings of the SMUD Board and offer public comment by telephone or internet-based service options including video conference are posted on the SMUD website and physically outside of SMUD’s Headquarters Building; and

WHEREAS, by Resolution No. 21-10-01 adopted on October 12, 2021, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and
WHEREAS, by Resolution No. 21-10-03 adopted on October 21, 2021, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 21-11-05 adopted on November 18, 2021, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 21-12-04 adopted on December 9, 2021, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-03-01 adopted on March 8, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-03-03 adopted on March 17, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-04-01 adopted on April 13, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-04-03 adopted on April 21, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-05-06 adopted on May 19, 2022, this Board made findings that requisite conditions exist for the SMUD Board to
conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-06-02 adopted on June 16, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-07-02 adopted on July 21, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-08-05 adopted on August 18, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; NOW, THEREFORE,

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

Section 1. Risks to Health and Safety of Attendees. The Board has reconsidered the circumstances of the state of emergency and hereby finds that the state of emergency continues to directly impact the ability of the members to meet safely in person and holding SMUD Board meetings in person would present imminent risks to the health and safety of attendees.

Section 2. Remote Teleconference Meetings. SMUD staff are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution, including conducting open and public meetings in accordance with section 54953(e) and other applicable provisions of the Brown Act.

Section 3. Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i) October 15, 2022, or (ii) such time the Board of Directors adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend
the time during which the SMUD Board may continue to teleconference without compliance with paragraph (3) of subdivision (b) of section 54953.

Approved: September 15, 2022

<table>
<thead>
<tr>
<th>DIRECTOR</th>
<th>AYE</th>
<th>NO</th>
<th>ABSTAIN</th>
<th>ABSENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROSE</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUI-THOMPSON</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FISHMAN</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HERBER</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>THOMAS</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>TAMAYO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SANBORIN</td>
<td></td>
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</tr>
</tbody>
</table>
President Rose then turned to Informational Items 10 through 12 and stated that any public comment on informational items could be provided during the general public comment period.

Chief Zero Carbon Officer, Lora Anguay, announced that earlier in the week, SMUD went live with the advanced distribution management system (ADMS), which is the control system for distribution system operators. She stated the ADMS allows for increased adoption of distributed energy resources, which is foundational to the 2030 Zero Carbon Plan. She congratulated Katarina Miletić, Manager of Distribution Operations Engineering, and her team, Amber Connors, Director of Strategic IT Initiatives, and the Operations Technology team, and the members of the Research & Development team under Ed Hamzawi for this major accomplishment toward achieving SMUD’s 2030 goals.

Ed Hamzawi, Director, Advanced Energy Solutions, gave a presentation on agenda item 10 to brief the Board on SMUD’s Zero Carbon customer programs. A copy of the slides used in his presentation is attached hereto.

Lisa Limcaco, Director, Accounting & Controller, gave a presentation on agenda item 11, to provide the Board with SMUD’s financial results from the seven-month period ended July 31, 2022, and a summary of SMUD’s current Power Supply Costs. A copy of the slides used in her presentation is attached hereto.

With regard to agenda item 12, the Audit Reports for Community Funding, Greenergy Partner Plus Verification, and Power Source Disclosure Program, no clarifying questions were forthcoming.

President Rose asked if there were any requests to speak for items not on the agenda.

Deputy General Counsel Schofield stated that two requests to speak had been submitted, but one speaker had withdrawn the request and the other did not appear to be logged into the meeting.

Public comment was received, copies of which are attached to these minutes, from the following members of the public:
President Rose then turned to Directors’ Reports and noted that his President’s Report would be brief given the hour.

Director Bui-Thompson reported on her attendance at the River City Food Bank Empty Bowls event and her participation in the SMUD Cares golf tournament to raise funds for charity.

Director Fishman reported on his attendance at the Hispanic Chamber of Commerce Luces Hispanas Awards. He then reported on his participation in the Sacramento Downtown Partnership Calling All Dreamers Awards where he represented SMUD. He closed by thanking Director Herber and Jose Bodipo-Memba, Director of Sustainable Community Programs, for their assistance in providing a presentation to the National Association for the Advancement of Colored People (NAACP) on the 2030 Zero Carbon Plan and Sustainable Communities.

Director Herber thanked Director Fishman and Jose Bodipo-Memba as well. She then reported on her attendance at the opening of the Food Literacy Center where Congresswoman Doris Matsui was in attendance. She reported on her participation in the Social Venture Partners Fast Pitch event and a tree planting at Crocker Riverside School. She closed by reporting on her attendance at the Burnett Awards given by the Sacramento History Museum where the Kerth Family was one of the award recipients.

Director Kerth thanked staff for going above and beyond for keeping the power on during the recent heat wave.

Director Tamayo thanked staff for their work in keeping the lights on. He closed by reporting on his attendance at the Urban Land Institute workshop on building electrification.

Vice President Sanborn reported on her attendance at the Sacramento Regional Innovation Awards pre-event. She stated she had met with Katharina Gerber who works for a company that makes parts for lithium ion batteries that are 100% recyclable. She then reported on her attendance at the Carmichael Parks Foundation Dinner in the Park for Carmichael Recreation and
Park District. She thanked staff for their work during the recent heat wave and the community for responding to the calls to conserve.

President Rose reported on his attendance at the River City Food Bank event as well as the Sacramento Business Journal’s Best of Real Estate Project Awards. He thanked staff for their work on the new ADMS system. He then thanked staff for their work during the heat wave and the community for cutting load during critical times. He also thanked everyone for their flexibility as the Committee meetings were canceled in the previous week and the items rescheduled.

Mr. Schofield stated that before moving on, Rosie Yacoub was available to provide her public comment.

Rosie Yacoub, member of the 350 Sacramento Electrification Team, read from her prepared statement, a copy of which is attached to these minutes as previously noted.

President Rose thanked her for her comments and stated the reports for Strategic Direction SD-7, Environmental Leadership, and Strategic Direction SD-9, Resource Planning, had been rescheduled to next month, when the conversation would continue.

Laura Lewis, acting Chief Executive Officer and General Manager, reported on the following items:

1) **Heat Wave.** As you know, last week’s heat wave was one of the worst in recent history. We had 10 straight days of extreme heat, breaking previous records by reaching 116 degrees in Sacramento on Tuesday, September 6th. This led to record demand for electricity and critically tight power supplies across the state as well as in our service area. Our peak load reached 3,292 MW, just 7 MW shy of breaking our peak record load set during a heat wave in 2006. It took all-hands-on-deck approach, through the Labor Day weekend and for multiple days in a row, to successfully secure adequate power, keep our equipment up and running and communicate the urgent need
for everyone in our community to conserve energy. Many of our community partners also helped spread the word about the need to conserve energy, and we are extremely grateful to everyone who helped us out. The possibility of rotating outages was real, and we were prepared on all fronts to do so if needed. Thankfully, they were not necessary thanks to the conservation efforts of our customers and community and the work by staff to secure additional power. We really appreciate everything our customers did to meet the challenge and conserve energy when it mattered most. Together we were able to keep the lights on through the unprecedented heat event.

2) **Award for Chief Zero Carbon Officer.** I would like to congratulate our Chief Zero Carbon Officer, Lora Anguay. Lora received an Exceptional Woman of Color Excellence Award from the Sac Cultural Hub Media Foundation. The award recognizes Lora’s commitment to and leadership in our 2030 Clean Energy Vision. Congratulations, Lora!

3) **Board Video.** Tonight’s video is part of a new series: SMUD 24/7, which showcases the work people and teams across SMUD do to deliver reliable service. Line Inspector Darryl Cook, who is featured in the video, is with us tonight. Line Foreman Mark Lagerstedt was also with us, but he had to leave since he is on-call and just got called out. This demonstrates the dedication of our staff.

Director Fishman thanked staff for their work during the heat wave event. He stated that he had been in the California Independent System Operation (CAISO) control room when those types of emergency conditions are happening and knew it was intense during those times, so he was thankful.

President Rose requested the Summary of Board Direction, but there were no items.
No further business appearing, President Rose adjourned the meeting at 8:21 p.m.

Approved:

_________________________ _____________________________
President                     Assistant Secretary
Exhibit to Agenda Item #10
Brief the Board on SMUD’s Zero Carbon customer programs.

Board of Directors Meeting
Thursday, September 15, 2022, scheduled to begin at 5:30 p.m.
Virtual Meeting (online)
Zero Carbon Customer Programs by Portfolio

Building Electrification & Energy Efficiency
Encourages customers to decarbonize their homes and workplaces by converting from gas to efficient electric equipment and optimize and manage their electricity use

Transportation Electrification
Incentives, information, and special rates that help customers purchase and charge electric vehicles for homes and businesses

Load Flexibility & Battery Storage
Programs and options for customers to participate in building our Virtual Power Plant to help shift and manage loads during times when energy is needed or when excess energy is available

Green Pricing
Gives SMUD customers the ability to conveniently satisfy their desire to achieve and maintain a highly renewable or zero carbon power supply
How do I electrify my HVAC or Hot Water System?

Building Electrification & Energy Efficiency

Customer searches for available rebates and participating contractors

[smud.org/rebates]
[smudcontractornetwork.org]

Customer signs installation contract

Contractor completes installation & sends documentation to SMUD

Customer selects a participating contractor & requests cost estimate for HVAC or HW conversion

Contractor reserves qualifying rebates

SMUD reviews/approves project & pays rebate

September 15, 2022 Board of Directors Meeting
How do I decarbonize my home?

Building Electrification & Energy Efficiency Residential Programs

Advanced Home Solutions Contractor Network

- Seal and insulate
- Heat pump HVAC
- Heat pump water heaters
- Panel upgrade
- Circuit upgrade

Retailer Partnerships

- Washers & dryers
- Refrigerator & freezers
- Air cleaners
- Room air conditioners
- Advanced power strips
- Refrigerator recycling

Customer Rebates and Information

- Induction cooktops
- SMUD Energy Store
  o Smart thermostats
- Informational Programs
  o Home Electricity Reports

smud.org/rebates
## How do I decarbonize my business?

Building Electrification & Energy Efficiency Commercial Programs

<table>
<thead>
<tr>
<th>Approach</th>
<th>Solutions</th>
<th>Resources</th>
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<tbody>
<tr>
<td><strong>Self-Service Approach</strong></td>
<td>• Express Energy Solutions</td>
<td>smud.org/ees</td>
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<td></td>
<td>• Turnkey Approach</td>
<td>smud.org/ces</td>
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<tr>
<td></td>
<td>• Specialized Approach</td>
<td>smud.org/custom</td>
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<tr>
<td></td>
<td>• Advanced Commercial Solutions</td>
<td></td>
</tr>
<tr>
<td><strong>Property Owners / Managers</strong></td>
<td>• Multifamily retrofit</td>
<td>smud.org/multifamily</td>
</tr>
<tr>
<td><strong>Builders / Developers</strong></td>
<td>• Commercial Integrated Design Solutions</td>
<td>smud.org/ids</td>
</tr>
<tr>
<td></td>
<td>• Residential Smart Homes</td>
<td>smud.org/smarthomes</td>
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### Key Metrics & Milestones

#### Building Electrification & Energy Efficiency

<table>
<thead>
<tr>
<th>Metric</th>
<th>2021 Final</th>
<th>2022 July Actual</th>
<th>2022 EOY Forecast</th>
<th>2022 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Pump HVAC Conversions</td>
<td>2,575</td>
<td>1,888</td>
<td>3,224</td>
<td>2,600</td>
</tr>
<tr>
<td>Heat Pump Water Heater Conversions</td>
<td>958</td>
<td>622</td>
<td>1,357</td>
<td>1,380</td>
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<tr>
<td>New Homes &amp; Multifamily Units Constructed</td>
<td>578</td>
<td>713</td>
<td>1,200</td>
<td>1,300</td>
</tr>
<tr>
<td>Cumulative Carbon Reduction (metric tons)</td>
<td>53,421</td>
<td>59,950</td>
<td>74,026</td>
<td>71,106</td>
</tr>
</tbody>
</table>

### Future Activities

- Launch Home Electricity Reports
- Expand SMUD Contractor Network to Commercial Installers
- Integrate Community Impact Plan Offerings

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September 15, 2022  
Board of Directors Meeting
Future Activities and Program Expansions

**Residential**
- Neighborhood focus: providing bundle offerings to increased # of customers
- Multifamily: increased incentives for affordable housing property managers

**Commercial**
- Neighborhood approach for small/medium-sized businesses: providing energy bundles for Zero Carbon Plan programs
Transportation Electrification
How do I electrify my personal vehicle?

Transportation Electrification

1. Searches for EV info
   - smud.org/driveelectric

2. Researches which EV and home charger is most appropriate
   - PlugStar Online Tools
   - SMUD EV Support Program
     - support@pluginamerica.org

3. Test drives an EV
   - Ride & Drive Events

4. Visits a dealership
   - Dealer Engagement

5. Makes EV purchase
   - CA Clean Fuel Reward Program

6. Purchases and installs a home charger
   - SMUD Energy Store
   - SMUD Charge@Home Incentives
   - Sacramento Clean Cars for All Partnerships

7. Wants to save money when charging at home
   - EV Rate Credit
     - (Time-of-Day)

8. Enrolls in Managed Charging pilot
   - smud.org/driveelectric
How do I electrify my company fleet?

Transportation Electrification

1. Reviews EV Fleet options
   - smud.org/driveelectricbusiness
   - Talk to Commercial EV Staff

2. Develops plan for fleet electrification
   - Commercial EV Program
   - SMUD eFuel AdvisorSM

3. Develops plan & install chargers
   - Commercial EV Program
   - SMUD eFuel SolutionsSM

4. Makes EV purchases
   - Commercial EV Program

5. Examines ways to reduce demand charge burden
   - Commercial EV Pilot Rate

September 15, 2022 12 Board of Directors Meeting
Residential and Commercial Programs
Transportation Electrification

Residential (smud.org/DriveElectric)

- Drive Electric Program
  - Individual EV Support
  - Ride & Drive Events
  - Dealer Engagement
  - PlugStar Online Tools
- SMUD Charge@Home Program
- Residential EV Rate Credit
- Sacramento Clean Cars for All Partnership
- Community Partnerships
- EV Managed Charging Pilot

Commercial (smud.org/DriveElectricBusiness)

- Commercial EV Program
  - Light, Medium, and Heavy-Duty vehicle incentives
  - Level 1, 2 and fast charger incentives
- SMUD eFuelSM
  - Advisor
  - Solutions
- Commercial EV Pilot Rate
- CALeVIP Partnership
# Key Metrics & Milestones
## Transportation Electrification

<table>
<thead>
<tr>
<th></th>
<th>2021 Final</th>
<th>2022 July Actual</th>
<th>2022 EOY Forecast</th>
<th>2022 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential EV Chargers</td>
<td>N/A</td>
<td>486</td>
<td>833</td>
<td>800</td>
</tr>
<tr>
<td>Commercial EV Chargers</td>
<td>266</td>
<td>129</td>
<td>320</td>
<td>300</td>
</tr>
<tr>
<td>Cumulative Residential EV Rate Participants</td>
<td>12,176</td>
<td>15,156</td>
<td>16,500</td>
<td>16,376</td>
</tr>
<tr>
<td># of Light Duty EV's in Service Territory</td>
<td>23,421</td>
<td>24,816</td>
<td>27,385</td>
<td>25,879</td>
</tr>
</tbody>
</table>

### Future Activities
- **SMUD Contractor Network** to install SMUD Charge@Home projects launching October 2022
- Expanded e-mobility incentives and EV home charger installations for EAPR and income qualified customers
- Add additional electric vehicle manufacturers to Managed Charging pilot
- **SMUD eFuel Solutions** program offering launch by year end
- In depth consultation services helping customers right size home EV charging solutions
- Investigating Universal Charging

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September 15, 2022

Board of Directors Meeting
Load Flexibility & Battery Storage
How can I help build my “Virtual Power Plant”?  

Load Flexibility & Battery Storage

1. Online search for qualifying smart thermostats
2. Purchases smart thermostat
   - SMUD Energy Store
3. Enrolls smart thermostat in My Energy Optimizer Partner
4. Receives $50 enrollment rebate and Critical Peak Pricing information
5. Receives notifications around Peak Event Days
6. Home preconditioned during Peak Event Days
7. Receives $25 participation rebate at the end of season or Critical Peak Pricing bill savings
How can I help my community build a virtual power plant?

Load Flexibility & Battery Storage

Rate Arbitrage
- My Energy Optimizer Starter
  - Battery Storage

Residential Summer Peak Days
- My Energy Optimizer Partner
  - Thermostat
  - Battery Storage

Residential Year Round
- My Energy Optimizer Partner+
  - Battery Storage

Summer Emergency Events
- Peak Corps (Air Conditioner Load Management)

Commercial Summer Peak Days
- PowerDirect

Research Pilots
- EV Managed Charging
- PowerMinder Water Heaters

smud.org/storageres
myenergyoptimizer.org
smud.org/storageres
smud.org/peakcorps
smud.org/powerdirect
### Key Metrics & Milestones

**Load Flexibility & Battery Storage**

<table>
<thead>
<tr>
<th></th>
<th>2021 Final</th>
<th>2022 July Actual</th>
<th>2022 EOY Forecast</th>
<th>2022 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Energy Optimizer Smart Thermostats</td>
<td>NA</td>
<td>4529</td>
<td>6500</td>
<td>5600</td>
</tr>
<tr>
<td>My Energy Optimizer Battery Customers</td>
<td>NA</td>
<td>33</td>
<td>100</td>
<td>368</td>
</tr>
<tr>
<td>PowerDirect (MW)</td>
<td>15.6</td>
<td>17.9</td>
<td>18.0</td>
<td>17.7</td>
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<tr>
<td>Load Flexibility Portfolio (Total MW)</td>
<td>74</td>
<td>113</td>
<td>182</td>
<td>206</td>
</tr>
</tbody>
</table>

### Future Activities

- **Increase PowerDirect® Small-Medium Business Participation**
- **Grow My Energy Optimizer Partner Thermostat Participation**
- **Implement My Energy Optimizer Partner Battery and Partner+ Events**
- **Launch Next Gen Air Conditioning Load Management Offering**
Green Pricing
How do I participate in Residential Greenergy™?

**Green Pricing**

<table>
<thead>
<tr>
<th>Becomes aware of Greenergy</th>
<th>Selects Greenergy participation level</th>
<th>Receives 1st year thank you letter and information on upgrading to Greenergy Neighbor or Climate Advocate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Electrical Service</td>
<td>smud.org/move</td>
<td>Annual Power Content Label &amp; Letter</td>
</tr>
<tr>
<td>Social Media Campaign</td>
<td>smud.org/going-green</td>
<td></td>
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<tr>
<td>Media Advertising</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Moves into home, finds Greenergy option via the start service interaction

2. smud.org/move

3. Selects Greenergy participation level

4. Receives welcome letter with information about choice and impact

5. smud.org/going-green
Residential and Commercial Programs

Green Pricing

Residential Greenenergy

Updated - January 2022
- Standard
- California Renewable
- Local Renewable

New options - June 2022
- Neighbor
- Climate Advocate

Commercial Greenergy

- Partner Plus
  - 100% California-based carbon free generation
- Custom Blend
  - Tailored based on customer needs

Sacramento Shade

- Partnership between SMUD and Sacramento Tree Foundation
- Up to 10 free trees for residential customers

Community Solar/Storage

- Neighborhood SolarShares
- Commercial StorageShares

smud.org/greenergy

smud.org/shadetrees

smud.org/going-green/neighborhood-solarshares
## Metrics & Milestones

### Green Pricing

<table>
<thead>
<tr>
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<th>2022 EOY Forecast</th>
<th>2022 Plan</th>
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<tbody>
<tr>
<td>Residential Greenergy customers</td>
<td>68,000</td>
<td>66,000</td>
<td>67,000</td>
<td>71,000</td>
</tr>
<tr>
<td>Commercial Greenergy customers</td>
<td>2,128</td>
<td>1,215</td>
<td>1,700</td>
<td>1,700</td>
</tr>
<tr>
<td># of trees distributed</td>
<td>11,628</td>
<td>6,047</td>
<td>12,250</td>
<td>12,250</td>
</tr>
<tr>
<td># of Neighborhood SolarShares homes enrolled</td>
<td>16</td>
<td>1809</td>
<td>2100</td>
<td>2500</td>
</tr>
</tbody>
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### Future Activities

- **2023 - Planning and development of Commercial Greenergy California Renewable Offering**
- **2024 - Planning and development of Commercial Renewable Shares Offering**
- **2023 – Update Sacramento Shade Contract**

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**September 15, 2022 22 Board of Directors Meeting**
<table>
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<tr>
<th>Program</th>
<th>Email address</th>
<th>Phone</th>
<th>Web Site</th>
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<tbody>
<tr>
<td>Advanced Home Solutions</td>
<td><a href="mailto:AdvancedHomeSolutions@smud.org">AdvancedHomeSolutions@smud.org</a></td>
<td>916-732-5732</td>
<td>smud.org/rebates</td>
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<tr>
<td>Express Energy Solutions</td>
<td><a href="mailto:Express.EnergySolutions@smud.org">Express.EnergySolutions@smud.org</a></td>
<td>916-732-5095</td>
<td>smud.org/ees</td>
</tr>
<tr>
<td>Complete Energy Solutions</td>
<td><a href="mailto:CES@trccompanies.com">CES@trccompanies.com</a></td>
<td>844-529-4084</td>
<td>smud.org/ces</td>
</tr>
<tr>
<td>Advanced Commercial Solutions</td>
<td><a href="mailto:CustomRetrofit@smud.org">CustomRetrofit@smud.org</a></td>
<td>916-732-5095</td>
<td>smud.org/custom</td>
</tr>
<tr>
<td>Integrated Design Solutions</td>
<td><a href="mailto:IntegratedDesign@smud.org">IntegratedDesign@smud.org</a></td>
<td>916-732-5095</td>
<td>smud.org/ids</td>
</tr>
<tr>
<td>Multifamily Go Electric</td>
<td><a href="mailto:multifamily@smud.org">multifamily@smud.org</a></td>
<td>916-732-6359</td>
<td>smud.org/multifamily</td>
</tr>
<tr>
<td>All Electric Smart Homes</td>
<td><a href="mailto:mc@trccompanies.com">mc@trccompanies.com</a></td>
<td>916-732-5300</td>
<td>smud.org/smarthomes</td>
</tr>
<tr>
<td>My Energy Optimizer</td>
<td><a href="mailto:MyEnergyOptimizer@smud.org">MyEnergyOptimizer@smud.org</a></td>
<td>916-732-7400</td>
<td>myenergyoptimizer.org</td>
</tr>
<tr>
<td>PowerDirect® ADR</td>
<td><a href="mailto:powerdirect@smud.org">powerdirect@smud.org</a></td>
<td>916-732-6950</td>
<td>smud.org/powerdirect</td>
</tr>
<tr>
<td>Drive Electric</td>
<td><a href="mailto:Support@PlugInAmerica.org">Support@PlugInAmerica.org</a></td>
<td>877-EV-HELP-1</td>
<td>pluginamerica.org/sacramento-ev-support-program</td>
</tr>
<tr>
<td>Charge@Home</td>
<td><a href="mailto:evincentives@smud.org">evincentives@smud.org</a></td>
<td>916-732-4800</td>
<td>smud.org/driveelectric</td>
</tr>
<tr>
<td>Commercial Electric Vehicles</td>
<td><a href="mailto:commercialev@smud.org">commercialev@smud.org</a></td>
<td>916-732-5095</td>
<td>smud.org/driveelectricbusiness</td>
</tr>
<tr>
<td>Greenergy</td>
<td><a href="mailto:greenergy@smud.org">greenergy@smud.org</a></td>
<td>888-742-7683</td>
<td>smud.org/greenergy</td>
</tr>
<tr>
<td>Shade Trees</td>
<td><a href="mailto:shadetrees@sactree.com">shadetrees@sactree.com</a></td>
<td>916-924-8733</td>
<td>smud.org/shadetrees</td>
</tr>
</tbody>
</table>
Thank You
Exhibit to Agenda Item #11

Provide the Board with SMUD’s financial results from the seven-month period ended July 31, 2022, and a summary of SMUD’s current Power Supply Costs.

Board of Directors Meeting
Thursday, September 15, 2022, scheduled to begin at 5:30 p.m.
Virtual Meeting (online)
## July 2022 Financial Highlights

### Net Income

- **$116 Million**
- Favorable compared to budget

### Customer Revenue

- **$895 Million**
- $37M or 4.3% higher customer revenues than budgeted (favorable)
  - $50M higher than target primarily due to higher customer usage & lower bad debt expense
  - Offset by $13M reduction in commercial customer revenues due to overstatement of 2021 estimated unbilled revenues

### Commodity

- **$406 Million**
- $101M or 33.0% higher commodity expenditures than budgeted (unfavorable)
  - Purchased power higher due to increased load, reduced hydro, and thermal generation down due to Cosumnes power plant outage
  - Non-cash revenue transfer from Hydro Rate Stabilization fund of $25 million will offset increased purchased power costs from lack of hydro

### Other Operating Expenses

- **$310 Million**
- $19M or 5.8% lower expenditures than budgeted (favorable)
  - Customer expenses & program costs - $16M lower primarily due to lower transportation electrification expenses and supply chain issues leading to delay in participation in customer programs
  - Public Good $8M lower primarily from less participation in energy efficiency programs, due to slower economic recovery in the commercial sector
  - Offset by $5M higher Transmission and Distribution expenses - primarily due to higher distribution maintenance underground line & station equipment expenses

### Non-cash Expenses

- **$105 Million**
- $51M or 32.7% lower non-cash expenses than budgeted (favorable)
  - Accounting Governmental Accounting Standards Board required journal entries for pension

*There are $42M other net revenues and expenses not included in the highlights above – primarily $25M transfer from the Hydro rate stabilization fund*
Hydro generation was 44% lower than budget in July, and 31% lower than budget year-to-date.

Thermal plants generation 59% lower than budget for July due to the Cosumnes power plant outage, and 28% lower than budget year-to-date.

Net purchased power was 174% higher than budget for July due to purchase of replacement power for the Cosumnes power plant, and 51% higher year-to-date due to higher load and the shortfall of hydro & thermal.
## Delinquency by Account Type

**As of August 31, 2022**

<table>
<thead>
<tr>
<th>Delinquency Summary as of 8/31/2022</th>
<th>Delinquency (millions)</th>
<th>Number of Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>$36.6</td>
<td>114,969</td>
</tr>
<tr>
<td>Energy Assistance Program Rate (EAPR)</td>
<td>$11.7</td>
<td>31,503</td>
</tr>
<tr>
<td>Commercial</td>
<td>$14.5</td>
<td>9,319</td>
</tr>
<tr>
<td>All other (St. Lighting, Night Light, Agriculture)</td>
<td>$ 1.0</td>
<td>1,685</td>
</tr>
<tr>
<td>Totals</td>
<td>$63.8</td>
<td>157,476</td>
</tr>
</tbody>
</table>

### Delinquency by Account Type

- **Residential**
  - September 2021: $67
  - October 2021: $73
  - November 2021: $75
  - December 2021: $42
  - January 2022: $44
  - February 2022: $44
  - March 2022: $44
  - April 2022: $41
  - May 2022: $38
  - June 2022: $31
  - July 2022: $32
  - August 2022: $37

- **EAPR**
  - September 2021: $17
  - October 2021: $18
  - November 2021: $20
  - December 2021: $11
  - January 2022: $11
  - February 2022: $19
  - March 2022: $18
  - April 2022: $17
  - May 2022: $16
  - June 2022: $15
  - July 2022: $14
  - August 2022: $15

- **Commercial**
  - September 2021: $15
  - October 2021: $17
  - November 2021: $18
  - December 2021: $11
  - January 2022: $11
  - February 2022: $12
  - March 2022: $12
  - April 2022: $11
  - May 2022: $10
  - June 2022: $10
  - July 2022: $10
  - August 2022: $12
SMUD has in place financial mitigation tools that hedge against hydroelectric uncertainty.

- **$56.1 Million** Hydro Rate Stabilization Fund balance
- **-$25.1 Million** HRSF withdrawal for Water Year April 2021 to March 2022
- **$31.0 Million** HRSF remaining balance after withdrawal
- **$33.5 Million** Western Area Power Administration Rate Stabilization Fund balance
- **-$30.0 Million** WAPA RSF forecasted withdrawal
- **$3.5 Million** Estimated – WAPA RSF remaining balance after forecasted withdrawal

### 2022 Commodity Forecasted Annual Costs as of July 31, 2022

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast</td>
<td>$635 - $654 Million</td>
</tr>
<tr>
<td>2022 Budget</td>
<td>$441 Million</td>
</tr>
<tr>
<td>Difference</td>
<td>$194 - $213 Million</td>
</tr>
</tbody>
</table>

### Hydro Performance Annual Forecast as of August 31, 2022

<table>
<thead>
<tr>
<th>Description</th>
<th>UARP</th>
<th>WAPA</th>
<th>UARP + WAPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast</td>
<td>995 GWh</td>
<td>221 GWh</td>
<td>1,216 GWh</td>
</tr>
<tr>
<td>2022 Budget</td>
<td>1,303 GWh</td>
<td>661 GWh</td>
<td>1,964 GWh</td>
</tr>
<tr>
<td>Variance</td>
<td>-308 GWh</td>
<td>-440 GWh</td>
<td>-748 GWh</td>
</tr>
</tbody>
</table>

**WAPA**: Western Area Power Administration  
**UARP**: Upper American River Project  
**RSF**: Rate Stabilization Fund
Days Cash on Hand
As of July 31, 2022

<table>
<thead>
<tr>
<th>Days Cash on Hand</th>
<th>Days Cash on Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td>As of July 31, 2022</td>
<td>July 31, 2022 Budget 180 days</td>
</tr>
<tr>
<td>July 31, 2022 Actual 177 days</td>
<td></td>
</tr>
<tr>
<td>Dec. 31, 2022 Projected 155 days</td>
<td></td>
</tr>
<tr>
<td>Dec. 31, 2022 Projected 155 days</td>
<td></td>
</tr>
</tbody>
</table>

Projected Days Cash
Actual Days Cash
Days Cash Minimum
Comments on SMUD Climate Zero Plan

Community Programs

We believe that SMUD is aiding in the electrification of County buildings at a below par level. Using data in this and last year’s SD-9 report, we found that electrification accomplishments in 2021 were 40% to 45% below the previous year. Even more telling is that the total changeouts represent less than 10% of the potential annual turnover of nearly 38,000 of the appliance stock in the County as indicated in my table below.

This low program expectation will carry over to this year as indicated in the milestone table presented at the Zero Carbon Customer Program update tonight. These 2022 program goals call for heat pump conversions (2,600 HVAC and 1,380 Water Heat) to be below those achieved in 2020, and far below the 38,000 units actually available for changeout annually. Clearly, these goals are set too low and do not seem to account for collateral efforts on electrification measure by local municipalities.

Moreover, there are not clear goals for future electrification outlined. These too should be ambitious. Currently SMUD is only projecting 112,000 home retrofits by 2030 -- only 20% of the actual County housing units of 564,500.

SMUD needs to present a plan for how they can benefit and optimize the measures in the Inflation Reduction Act that will create a better projection by 2030. One way this could be done is to provide a financing measure that would allow more individuals and landlords to actually make the conversion to all-electric, and let the Inflation Reduction Act rebates allow them to repay the financing sooner. Focusing on equity and lowering the bar for doing the conversions is very important.

Rosie Yakoub

350 Sacramento
## Electrification Team

### SMUD Building Electrification Accomplishments 2020-2021

<table>
<thead>
<tr>
<th>Original appliance:</th>
<th>2020</th>
<th>2021</th>
<th>Change (Pct)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gas</td>
<td>Electric</td>
<td>Totals</td>
</tr>
<tr>
<td><strong>Heat pump water heaters</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single family</td>
<td>1.025</td>
<td>77</td>
<td>1,102</td>
</tr>
<tr>
<td>Multi-family</td>
<td>45</td>
<td>622</td>
<td>667</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1,070</td>
<td>699</td>
<td>1,769</td>
</tr>
<tr>
<td><strong>Heat pump space heaters</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single family</td>
<td>1.49</td>
<td>2.54</td>
<td>4,031</td>
</tr>
<tr>
<td>Multi-family</td>
<td>45</td>
<td>622</td>
<td>667</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1,536</td>
<td>3,162</td>
<td>4,698</td>
</tr>
</tbody>
</table>

**Total Sacramento County Housing Units:** 56,445  
**Projected Annual Appliance Turnover (15-yr life):** 37,630

### Key Metrics & Milestones

<table>
<thead>
<tr>
<th></th>
<th>2021 Final</th>
<th>2022 July Actual</th>
<th>2022 EOY Forecast</th>
<th>2022 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Pump HVAC Conversions</td>
<td>2,575</td>
<td>1,888</td>
<td>3,224</td>
<td>2,600</td>
</tr>
<tr>
<td>Heat Pump Water Heater Conversions</td>
<td>958</td>
<td>622</td>
<td>1,357</td>
<td>1,380</td>
</tr>
<tr>
<td>New Homes &amp; Multifamily Units Constructed</td>
<td>578</td>
<td>713</td>
<td>1,200</td>
<td>1,300</td>
</tr>
<tr>
<td>Cumulative Carbon Reduction (metric tons)</td>
<td>53,421</td>
<td>59,950</td>
<td>74,026</td>
<td>71,106</td>
</tr>
</tbody>
</table>
We are very concerned with SMUD’s current power problems including low hydro availability and the unplanned disability of Cosumnes. This power supply update partially explains how staff has scrambled to make up the shortfall. But the report raises the following questions for those of us worried about the greenhouse gas emission impacts and the cost of continual investment in a plant that may be destined for shutdown or repurposing by 2030.

- What are power sources from the WSPP, specifically how much comes from renewable power including hydroelectric?
- When is the estimated timeframe for Cosumnes to come back on-line?
- Is the turbine under warranty? How much is estimated to fix it?
- If it requires a sizable capital addition would SMUD be better off buying power from the market as it develops its new fleet of renewables? This might require that BANC merge with the CAISO. Would the other BANC members agree?
- Does the Cosumnes outage make SMUD more vulnerable now to rotating outages?
- How are the biogenic fuels that are piped to Cosumnes being used during the shut-down?

It occurs to us that this problem is similar to the one SMUD faced with Rancho Seco. Throwing good money after bad for an asset that has a short life span (to 2035??). This is a situation where the Board members need to ask the right questions and just not go along with management's theory of the case that fixing Cosumnes is the only solution.

Thank you

350 Sacramento SMUD Watch Committee
Rick Codina
Ed Smeloff
TO

1. Jennifer Davidson
2. Brandy Bolden
3. Farres Everly
4. Suresh Kotha

Consent Calendar
X

DEPARTMENT
Legal Department

Requested Action: Make findings pursuant to Government Code section 54953(e) to continue meetings via virtual (online/teleconference) meeting for the next 30 days.

Summary: Pursuant to Executive Order N-29-20 issued on March 17, 2020, and Executive Order N-35-20 issued on March 21, 2020, as well as the Emergency Board Meeting Procedures adopted by this Board via Resolution No. 20-06-08 on June 18, 2020, this Board has conducted regular Board meetings and other public meetings via remote (online/teleconference) meetings.

On September 16, 2021, Governor Newsom signed Assembly Bill 361 (AB 361), which became effective immediately upon signature, containing language that eased Brown Act requirements to allow local agencies to meet remotely. AB 361 allows meetings to continue to be conducted by teleconference, similar to the process used during the current COVID-19 pandemic, but only when there is a declared state of emergency when the local governing body makes findings that there are imminent health risks to meeting in person.

On February 25, 2022, Executive Order N-04-22 was issued leaving the California State of Emergency due to the threat of COVID-19 in effect for the foreseeable future. Though the State of Emergency remains in effect, mask mandates have been dropped locally and at the state level.

On April 21, 2022, CAL/OSHA re-adopted its workplace COVID-19 Emergency Temporary Standards (ETS), as modified, effective May 6, 2022, through December 31, 2022, including outbreak reporting. Due to the lack of a requirement to sign in at SMUD Board meetings with contact information, it could be nearly impossible to undertake effective contact tracing. Although the most recently reported COVID-19 data published by the Sacramento County Department of Public Health on its Epidemiology COVID-19 Dashboard, and covering the period up to September 24, 2022, indicated a local COVID-19 case rate of 8.3% and 13 deaths since the last update, meaning Sacramento County is currently in the low severity tier for COVID-19 with surrounding counties also being in the low tiers, staff and community partners continue to report COVID-19 infections, sometimes with fairly severe symptoms. This is consistent with wastewater data showing COVID-19 samples to have remained at a fairly consistent level in Sacramento County for the last few weeks. The bivalent booster shots are widely available but reportedly only a third of people say they plan to get it soon. Moreover, when SMUD Board and Committee meetings were held in person, they could last as long as four hours with all participants in a single room. And although we could space out participants, they would still be breathing one another’s respirated air for what could be a lengthy period of time. The last two years saw rapid increases in infection rates during the fall, and if that pattern remains true for this year, a new surge could come soon.
By Resolution 21-10-01 adopted on October 12, 2021, Resolution No. 21-10-03 adopted on October 21, 2021, Resolution No. 21-11-05 adopted on November 18, 2021, Resolution No. 21-12-04 adopted on December 9, 2021, Resolution No. 22-03-01 adopted on March 8, 2022, Resolution No. 22-03-03 adopted on March 17, 2022, Resolution No. 22-04-01 adopted on April 13, 2022, Resolution No. 22-04-03 adopted on April 21, 2022, Resolution No. 22-05-06 adopted on May 19, 2022, Resolution No. 22-06-02 adopted on June 16, 2022, Resolution No. 22-07-02 adopted on July 21, 2022, Resolution No. 22-08-04 adopted on August 18, 2022, and Resolution No. 22-09-06 adopted on September 15, 2022, this Board has previously made findings to continue to hold regular Board meetings and other public meetings via solely virtual (online/teleconference) format.

Staff’s recommendation is to continue to hold regular Board meetings and other public meetings via solely virtual (online/teleconference) meeting and continue to monitor developments related to the COVID-19 pandemic. Pursuant to Government Code section 54953(e), this Board must make findings every 30 days that conditions warrant continuing to meet virtually instead of in-person.

**Board Policy:** Governance Process GP-3, Board Job Description – j) Take such other actions as may be required by law.

**Benefits:** Making the determination to continue remote meetings will allow for efficient conduct of SMUD business.

**Cost/Budgeted:** Contained in Business Unit budget for internal labor.

**Alternatives:** Take no action and comply with all original Brown Act requirements.

**Affected Parties:** SMUD, Board of Directors, Public

**Coordination:** Executive Office, Board Office, Legal Department, Information Technology, Communications

**Presenter:** Laura Lewis, Chief Legal & Government Affairs Officer

Additional Links:

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>Make Findings to Continue Online/Teleconference Meetings</th>
</tr>
</thead>
</table>

ITEM NO. (FOR LEGAL USE ONLY) 5

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
WHEREAS, SMUD is committed to preserving public access and participation in meetings of the Board of Directors and to the safety of meeting attendees; and

WHEREAS, all meetings of the Board of Directors are open and public, as required by the Ralph M. Brown Act (Gov’t Code, §§ 5495054963) (“Brown Act”), so that any member of the public may attend, participate in, and watch SMUD’s governing body conduct its business; and

WHEREAS, the newly enacted Government Code section 54953(e) authorizes a local agency’s governing body, during a proclaimed state of emergency, to participate in its public meetings using remote teleconferencing without compliance with the requirements of Government Code section 54953(b)(3), under specified conditions; and

WHEREAS, a required condition is that a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558; and

WHEREAS, another condition is that state or local officials have imposed or recommended measures to promote social distancing, or, the legislative body determines that meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, on February 28, 2022, the California Department of Public Health rescinded the mask requirement effective March 1, 2022, for all individuals...
regardless of vaccination status and instead issued a strong recommendation that all persons, regardless of vaccine status, continue indoor masking; and

WHEREAS, the Sacramento County Department of Public Health on its Epidemiology COVID-19 Dashboard continues to show elevated case and death data that appears to have been stable for weeks, and this is supported by ongoing wastewater sampling; and

WHEREAS, Sacramento County and surrounding counties currently have low community transmission rates for COVID-19 as defined by the Centers for Disease Control and Prevention; and

WHEREAS, on April 21, 2022, the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) re-adopted its workplace COVID-19 Emergency Temporary Standards (ETS), as modified, effective May 6, 2022, through December 31, 2022, including outbreak reporting; and

WHEREAS, SMUD staff and other community members are still reporting infections with lasting symptoms; and

WHEREAS, adoption of the new bivalent booster is still relatively low; and

WHEREAS, SMUD Board and Committee meetings can last as long as four hours, with participants sitting in the same room sharing air the entire time; and

WHEREAS, it would be impractical for SMUD to take steps necessary to prevent imminent risks to the health and safety of attendees, such as by holding public meetings outdoors, ensuring public meeting attendees are vaccinated, have appropriate face coverings, and wear them consistent with public health guidance; and
WHEREAS, all meetings, agendas, meeting dates, times, and manner in which the public may participate in the public meetings of the SMUD Board and offer public comment by telephone or internet-based service options including video conference are posted on the SMUD website and physically outside of SMUD’s Headquarters Building; and

WHEREAS, by Resolution No. 21-10-01 adopted on October 12, 2021, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 21-10-03 adopted on October 21, 2021, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 21-11-05 adopted on November 18, 2021, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 21-12-04 adopted on December 9, 2021, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-03-01 adopted on March 8, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct
remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

    WHEREAS, by Resolution No. 22-03-03 adopted on March 17, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

    WHEREAS, by Resolution No. 22-04-01 adopted on April 13, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

    WHEREAS, by Resolution No. 22-04-03 adopted on April 21, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

    WHEREAS, by Resolution No. 22-05-06 adopted on May 19, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

    WHEREAS, by Resolution No. 22-06-02 adopted on June 16, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and
WHEREAS, by Resolution No. 22-07-02 adopted on July 21, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-08-05 adopted on August 18, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. 22-09-06 adopted on September 15, 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, by Resolution No. [XX] adopted on [October], 2022, this Board made findings that requisite conditions exist for the SMUD Board to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; NOW, THEREFORE,

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

Section 1. Risks to Health and Safety of Attendees. The Board has reconsidered the circumstances of the state of emergency and hereby finds that the state of emergency continues to directly impact the ability of the members to meet safely in person and holding SMUD Board meetings in person would present imminent risks to the health and safety of attendees.
Section 2. Remote Teleconference Meetings. SMUD staff are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution, including conducting open and public meetings in accordance with section 54953(e) and other applicable provisions of the Brown Act.

Section 3. Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i) November 19, 2022, or (ii) such time the Board of Directors adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the SMUD Board may continue to teleconference without compliance with paragraph (3) of subdivision (b) of section 54953.
### Board Meeting Date
October 20, 2022

#### Staffing Summary Sheet

<table>
<thead>
<tr>
<th>TO</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Claire Rogers</td>
<td>6. Suresh Kotha</td>
</tr>
<tr>
<td>2. Frankie McDermott</td>
<td>7.</td>
</tr>
<tr>
<td>5. Farres Everly</td>
<td>10. CEO &amp; General Manager</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<td>FROM (IPR)</td>
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<td></td>
<td>Eliias van Ekelenburg</td>
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#### NARRATIVE:

**Requested Action:** Accept the monitoring report for Strategic Direction SD-6, Safety Leadership.

**Summary:** Report on the status of Strategic Direction SD-6, Safety Leadership (SD-6), for safety performance from January through June of 2022. Report addresses safety leadership accomplishments during the first six months of the year, current Days Away Restricted Time numbers, and safety opportunities and challenges.

**Board Policy:** This report supports the SD-6 Core Value of Safety by providing a safety performance status.

**Benefits:** Provide the scheduled bi-annual monitoring report as requested by the Board of Directors and Executive Staff. The report provides an opportunity to make recommendations or policy revisions, as necessary.

**Cost/Budgeted:** None

**Alternatives:** Provide the Board monitoring report without a presentation.

**Affected Parties:** Board of Directors, Executive Staff

**Coordination:** Organization-wide

**Presenter:** Eliias van Ekelenburg, Director of Environmental, Safety, and Real Estate Services

**Additional Links:**
TO: Board of Directors

FROM: Claire Rogers CR 9/28/22

SUBJECT: Audit Report No. 28007434
          Board Monitoring Report; SD-06, Safety Leadership

Audit and Quality Services (AQS) received the SD-06 Safety Leadership first-half 2022 Biannual Board Monitoring Report and performed the following:

- A review of the information presented in the report to determine the possible existence of material misstatements;
- Interviews with report contributors and verification of the methodology used to prepare the monitoring report; and
- Validation of the reasonableness of a selection of the report’s statements and assertions.

During the review, nothing came to AQS’ attention that would suggest the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:

Paul Lau
1. **Background**

Strategic Direction SD-6, Safety Leadership states that:

Creating a safe environment for employees and the public is a core value of SMUD.

Through best practice methods and continuous improvement, SMUD will be recognized as a leader in employee safety while also assuring the safety of the public related to SMUD operations and facilities. SMUD commits to a proactive approach, including the active involvement of SMUD leadership, employees, contractors, and the community, as well as comprehensive monitoring of organizational and public safety performance.

Therefore, SMUD will continue to improve safety results to:

**Workplace Safety**

a) Reduce SMUD’s injury severity incidents to 13 or less than by 2025, as measured by OSHA’s Days Away Restricted Time (DART), a rate that demonstrates top quartile safety performance for similar size utilities using the Bureau of Labor Statistics (BLS) work-related safety data.

b) Provide timely, quality health care for injured employees that aids their recovery while maintaining positive financial performance of the workers’ compensation program.

**Contractor Safety**

a) Support contractors to reduce and eliminate potential hazards for Serious Injuries and/or Fatality (SIF) when conducting high risk work.

**Public Safety**

a) Track and report injuries to the public related to SMUD operations or facilities.

b) Implement measures to protect the public from injuries related to SMUD operations or facilities.

2. **Executive Summary**

SMUD is in compliance with the SD-6 direction and is in alignment with SMUD’s new 5-year strategy of working toward a zero-incident culture. SMUD is currently on track to meet safety performance targets related to SD-6 for 2022.
Workplace Safety

From January 2022 through June, SMUD recorded 15 OSHA Recordables injuries. This is a 40% decrease from this time last year (25 OSHA Recordables). Of the 15 injuries, 4 (2 Lost Time & 2 Modified Duty injuries) resulted in a .039 DART rate. This represents a continued decrease in injuries which is trending downward to meet our 2025 Target (See Appendix A).

Quality care of injured employees is measured through the Workers’ Compensation program’s performance, which is assessed annually by an independent actuary. SMUD continues to have a reduction in claims over the past three years, a reduction in injury frequency rates, and a reduction in indemnity benefits as presented below.

<table>
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<tr>
<th></th>
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<th>2019</th>
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<td>No. of Claims (Medical &amp; Indemnity)</td>
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<td>89</td>
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<tr>
<td>Incident rate per 100 employees</td>
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<td>3.6</td>
<td>2.3</td>
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<td>Rates per $100 payroll</td>
<td>.98</td>
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This year has continued to present challenges with COVID-19. COVID-19 has not only impacted the way SMUD is getting work done but has also resulted in new and emerging legislation surrounding paid leave and workers’ compensation liabilities for COVID related injuries. Despite these challenges SMUD’s program remains strong and continues to lead when compared with similarly situated organizations. No COVID-19 claims were made in 2022.

Contractor Safety

Safety has completed 96 contractor site safety field visits thru the 2nd Quarter of 2022. These visits focus on high hazard work performed on SMUD projects focusing on construction safety hazards, such as excavation, working at elevations, and in confined spaces to verify safe working practices by our contractor to reduce the potential for serious injuries or property damage. Contractor reported incidents require an investigation to be completed and typically will warrant additional site safety visits to verify corrective measures have been put into place to reduce further occurrences.

Public and Community Safety

SMUD tracks public and community incidents in the Safety Incident Tracking System (SITS) involving car-pole, electrical contact, dig-in incidents, and injuries to the public that are related to SMUD’s operations or facilities. For the first half of 2022, there have been 150 incidents where the public struck a SMUD asset with a vehicle, with one fatality from such events. Seven electrical contacts were reported with one minor injury, and 45 dig-ins with no reported injuries.

3. Additional Supporting Information

The new SD-6 Safety Direction became effective February 2021. Our goal is to achieve the desired performance objectives by year-end 2025. This report summarizes the first half of the 2022 safety performance.
**Safety Leadership.** The Safety Team continues with its integration efforts to support Executive Leadership’s 5-year plan that emphasizes zero incidents and injuries and a focus on a zero-accident safety culture. SMUD’s Chief Executive Officer (CEO) Paul Lau, re-emphasized the need to improve safety at SMUD with a greater focus of developing a "Safety for Life" culture, reducing the risk of serious injuries and fatalities, implementing a safety management system, and improving the analysis of injury and incident trends. These goals are outlined in SMUD’s Safety Road Map, which was updated in early 2022.

**Safety Management System (SMS).** Five applications within the Safety Management System are planned to be activated in 2022. They include the Contractor Manager, Safety Data Sheets (SDS), Industrial Hygiene, Initial Injury Reports and Incident & Measurements which will replace core functions of the legacy Safety Incident Tracking System (SITS). During 2022, Safety anticipates that there will be sufficient data to activate and utilize, new safety dashboards and reports for leadership.

**Safety Standards Development.** The Safety Team has continued their efforts to improve the process of routing new or updated Health & Safety Standards to appropriate Directors for review, utilizing the SMS “Doc Manager” application. The first standard to be routed, utilizing this process is the PCB Health & Safety Standard. In addition, the Team has been preparing for updates from Cal/OSHA on the COVID-19 requirements, to ensure our Injury Illness Prevention Program (IIPP) and COVID-19 Appendix contains the most up-to-date regulatory requirements and is provided to all SMUD personnel in a timely manner.

**Supervisor-Employee Interactions.** Safety continues to strengthen its supervisor-employee interaction quality program. Improvements included moving data to the new Safety Management System (SMS). Emphasis is placed on field visits for work with the highest hazard potential. For office personnel, an emphasis is placed on observing personnel pertaining to ergonomic risk, and slip/trip/fall hazards in walking areas. During the first half of 2022, a total of 7,067 Supervisor-Employee interactions were complete that resulted in a 152% percentage observed.

**Near Miss Reporting.** Leadership continues to support and encourage near miss reporting. During the first half of 2022, the Safety Incident Tracking System (SITS) and applications within the new Safety Management System, provided a method to track near miss reporting. The goal of this process is to identify opportunities for learning, prior to an incident occurring. Thirty-four near miss incident were reported through June 2022, 22 through the SITS applications and 12 in the new Safety Management System.

**Contractor Safety.** SMUD continues to use the ISNetworld system to evaluate our contractor’s safety record and safety program. The Contractor Safety program focuses on SMUD contractors in Power Generation, Environmental Services, Line, Substation, and Vegetation management contractors that perform high risk work, such as high voltage work, working at heights, vegetation management, confined spaces, excavations, etc. Additionally, we have begun to integrate the use of the SMS system for use with SMUD contractors, primarily for incident tracking, reporting and investigations as we move away from SITS.

SMUD currently has 80 contractors in the ISN system. During the past year we have expended our site safety evaluations performed on our high-risk contractors validate safety performance on the jobsites. Through the second quarter of 2022, 96 site safety evaluations have been completed and SMUD is on track to meet or exceed the 2022 target of 150 evaluations. We are also continuing to validate our pre-qualification criteria for contractor selection. SMUD’s pre-qualification criteria focuses on Contractor Fatality History, OSHA Citation History, DART and
Total Recordable Incident Rates (TRIR), Insurance Experience Ratio, Safety Culture Questions, and Safety Program Review.

In addition, SMUD Procurement and Safety have partnered together working on enhancing contract language as it relates to contractor safety requirements, Request for Proposal (RFP) templates for high-risk work and incorporating contractor safety as part of the onboarding process.

**Safely Conducted Observations Reduce Common Hazards (SCORCH).** A SCORCH Spring Cleaning event and Summer Safety photo contest were conducted to continuously promote SMUD’s Safety for Life culture and intentionally expand employee use of the (SMS) Safety Management System. Employees positively responded to engagement opportunities that allow them to share photos of themselves and/or family members demonstrating safe behaviors in action at home and at play. Feedback obtained from these observations will be used to create an additional CBI behavior checklist that extends beyond the employee’s core work. SCORCH relaunched its external process engagement efforts and best practices information gathering by attending Dekra’s, Safety in Action conference after a two-year absence. An internal mini conference will serve as the forum for sharing the information and made available for all employees to attend. The goal is to elevate behavior awareness and wellness ownership to a level that is in alignment with a sustained work/life balance here at SMUD.

Through June of 2022, SCORCH team members conducted 1,995 Office and Professional observations and 1,399 Field employee observations. These safety interactions resulted in the removal of 2 barriers to employee safety. **Head & Neck Posture** is the current/trending top at-risk behavior for office employees. Early awareness and behavior ownership coaching for avoiding repeated or sustained awkward postures (chin to chest, chin to sky or craning) of the head and neck was out into action.

For Field employees **Situational Awareness** is the top trending at-risk behavior. This led to an action plan focused on elevating behavior awareness for more frequently updated information for potential moving and/or changing conditions related to the surrounding work area. Early recognition for a potential hazard (vehicle, pedestrians, or stray dogs) can provide employees the space, visibility, and time to safely react to a situation.

4. **Challenges**

**COVID-19 and Vaccination Guidance.** The safety of our employees is of utmost importance, so we continue to monitor SMUD COVID-19 cases and manage prevention efforts. In 2022 SMUD Safety, People, Services, & Strategies, along with Communications revised the COVID-19 guidance to meet regulation changes within the Cal-OSHA Emergency Temporary Standard around facial covering, testing programs, quarantine, and isolation guidelines to protect employees, contractors, and the public. SMUD continues to provide employees with COVID-19 vaccinations and antigen testing at our EC-OC clinic, as well as PCR testing at our contractor facility. Our third-party vendor Axiom Medical continues to handle employee contract tracing and the process has been working well.

**Data Management.** SMUD Safety and IT selected the GenSuite Safety Management System (SMS) to improve the quality, automation, and use of safety data. Injury dashboards and
automated reports will be available to leadership in the second half of 2022, with the rollout of the Incidents & Measurements application.

**Chronic Muscular Injuries.** The SMUD Safety Team continues to work with business units to reduce all incidents. This year, the following actions were taken to focus on a reduction to chronic muscular injuries: SMUD leadership and employees worked together to continue to build trust. Safety continued to partner with SCORCH (behavior-based) Committees to utilize data from home observations and what at-risks were trending. Safety then used this data for areas to focus on during ergo evaluations and quarterly safety meeting topics.

Safety for Life efforts continued with Sparky’s Crew sending quarterly safety newsletters, postcards, birthday cards and reaching out for children’s artwork for the Safety Calendar.

Safety continued crew and contractor safety field visits, getting eyes on work and ensuring our employees, contractors, customers and community are safe. The Safety team has made additional updates to safety standards and trainings both in person and virtual. In addition, SMUD continued the field ergonomic program with Power Generation and started a pilot Injury Prevention Outpost with Line Division, at the end of the Q4 2021.

**Wildfire Smoke.** This year, in May and June, Safety held several Tabletop Exercises with our various leadership teams who have outdoor workers, to prepare for the use of the Purple Air monitoring system and reporting, in cab vehicle air filters, PPE, scheduling, and training as a different method to inform and assist with response of poor air quality days, should the need arise. We sent a voting email to all leadership to determine the need and interest of receiving Wildfire Smoke Alerts throughout the organization for these events. This year, to date, we have had 5 days of notifications, of which, were only provided to the UARP personnel due to the Oak and Electra Fires.

5. **Recommendation**

SMUD is committed to becoming a recognized leader in safety. Both SMUD’s leadership team and employees recognize that to achieve success we must integrate safety into all that we do. It is recommended that the Board accept the Monitoring Report for SD-6.
6. Appendices - Business Segment Safety Program Improvement Initiatives

Energy Delivery and Operations (EDO). Grid Assets leadership is continuing its efforts to achieve World Class Safety with ongoing efforts, of encouraging field staff input and participation in Business Unit and Work Group specific Joint Labor Management Safety Committees (JLMSCs), which include representatives from Field, Supervision, Union, Warehouse, Fleet and Safety in attendance. The Quarterly Business Segment JLMSC continues with an “All field teams’ approach” at SMUD, allowing for the sharing of ideas and mitigation controls, of similar risks. Due to COVID-19 impacts, these meetings continue to be held via Teams. A few of the subjects addressed this year which directly affect field staff have been SMS roll out of the Concern Report App, SCORCH Observation App, and Monthly Vehicle Inspections and Housekeeping Inspections in the Inspection Tool App; FR Clothing product substitution with like products (in response to global supply chain issues); procurement of a healthier electrolyte alternative and cooling hard hats for high heat in the summer months. Field crew response continues to be positive, for the safety improvements being made, recognized, and appreciated. During the first half of the year, Safety has partnered with ED&O field operations to roll out a highly effective, innovative field focused ergonomics program. Instead of having staff come in from the field to interact with the ergonomics specialist, the expert is going out to the job site. During this crew specific, 1-1 discussions various stretching techniques, ergo support tools are provided, and awkward postures are identified. This program started with the Line department and is quickly moving throughout the organization.

Safety has continued to work with the SMUD Power Academy, through the COVID pandemic, reviewing internal and external safety training programs, to ensure continued consistency and quality. This year, the SMUD Power Academy has been invited to participate and collaborate in the Health & Safety Standards update reviews, for input and identification of training opportunities.

The Safety Team continues to provide required health and safety training to field employees, utilizing smaller class sizes, updated signage, use of temperature stations, improved sanitization, PPE, and pre shift wellness checks. This adjustment to the safety training delivery has prevented any COVID related illnesses spread or outbreaks by the field crews during their participation in SMUD Safety training at the Power Academy, ECOC, Fresh Pond, or other SMUD reporting facility.

To ensure the Safety for Life culture continues to evolve during this time of social distancing and remote work, more emphasis will be placed on Safety for Life communications and testimonials. There were two employee shares this year in our Employee Safety for Life Newsletter. One newsletter was a personal share about how the wildfire smoke affected her and how she safely evacuated her home, and the other was a share about an employee’s son being bitten by a rattlesnake which offered information about myths and how to keep others safe. The Safety team hosted three driving rodeos this year for the Telecom, Meter Reading and Energy Specialist teams and has one more scheduled in fourth quarter for the Facilities teams. Safety for Life Sparky’s Crew for SMUD children consisting of birthday cards, safety newsletters, postcards, and the safety calendar with children’s artwork, has continued throughout the pandemic.

It is important to maintain health and wellness with the ever-changing landscape we are currently working through. Health & Safety realizes the environments in which we live, work and
play, impacts our well-being. The wellness program embraces a holistic approach that includes physical, financial, social, spiritual, and emotional wellness to support positive behavioral changes. Wellness activities were designed to support all employees, whether working on-site or remotely, through virtual wellness programs and activities. These activities focused on improving overall health, through on-line stretch breaks, workouts, nutritional seminars, and cooking demos, all to support physical health. In 2022, Health and Safety partnered with Wellness to establish guidelines to safely re-open locker rooms and showers to accommodate bike commuters and runners that have returned to campus. Earlier this year a new mental health workshops brought awareness to emotional health and provided tools and resources to support employees and their families. The new Mental Health Hotline was introduced for people dealing with a mental health crisis can now call the national hotline by dialing 988 for help. Health and Wellness efforts continue to focus on employees and their families, empowering them to promote and model positive attitudes and behaviors through a lifelong commitment to wellness.

**Zero Carbon Energy Solutions (ZCES).** Since the beginning of the COVID-19 pandemic, Power Generation has prioritized employee safety while ensuring that critical work is completed. The Upper American River Project (UARP) increased work planning efforts to isolate crews and document work routes in case contact tracing was needed. Gas Pipeline began reporting directly to the field, to limit employee to employee contact. Meetings that include JLMSC updates, tailboards, safety meetings and safety training, including annual crew training, have continued with appropriate modifications to occur virtually, or when an in-person meeting is required, social distancing is utilized.

Power Generation employees continued with their Savvy FIT Daily Dozen for soft tissue injury reduction. As a result, soft tissue injuries continue to trend down.

In addition to the COVID-19 Pandemic, Power Generation has also responded to extreme high heat and wildfire smoke events. Multiple employees have been fit tested for N95 respirators, so they are able to respond to emergency call-outs.

In February 2022, Hydro Operations received the highest Cal/OSHA recognition, VPP Star status. VPP is designed to recognize employers and their employees who have implemented safety and health programs that effectively prevent and control occupational hazards. These programs go beyond minimal Cal/OSHA standards and provide the best feasible protection at the site. Achieving this status ensures that Hydro will continue with safety process improvements with annual comprehensive safety audits performed by a third party. Their 2022 audit will take place in September.

Management commitment and employee participation are key elements in achieving VPP recognition. VPP establishments are considered leaders in the field of workplace safety and health. GPO continues to meet and prepare for their Cal/OSHA audit.

Some of the major projects completed by Hydro employees include the Camino unit 1 generator maintenance consisting of rotor and stator cleaning and repair. Camino unit 1 and 2 breakers and switch gear were also replaced. In 2022, the Rubicon Reservoir flow meters and pipe were replaced all projects were high hazard work and were completed without injury or incident.
Customer & Community Services (CCS). Safety worked closely with CCS and Security to safely re-open the CSC lobby to full capacity. CCS initiated the dunning process that drove more customer into the lobby and all five customer windows were opened to support the increase of customer traffic. COVID-19 safety protocols remain in place to protect employees, contractors, and members of the public. The front lobby parking lot project is well underway for upgrades to meet ADA compliance and is scheduled for completion by Q4, 2022.

Corporate Financial and Administrative Services (CFAS). Facilities and Safety continue to partner on re-entry efforts and Home-Based Agent workspace installations to ensure ergonomic comfort for employees in office and at home. COVID-19 mitigation measures continue in the office workspace to protect all employees, contractors, and the public. Facilities has integrated Monthly Vehicle Inspections into SMS through the Inspection Tool application for easy access and data trending. Facilities continues to support the SMUD 2030 Zero Carbon goal by supporting the installation of EV Charging infrastructure throughout SMUD campuses as a united effort with SMUD contractors.

This summer, the Sacramento area has experienced record-breaking high temperatures throughout the region. Warehouse has partnered with Safety in heat-illness prevention mitigations to ensure all field employees have access to cool water, portable shade, and UV skin protection. During days with high heat hazards, Warehouse provides electrolyte-replenishing beverages to field employees. Safety and Warehouse have collaborated with various business units to pilot new hard-hats with advanced ventilation designs to improve the comfort of our field employees wearing mandatory personal protective equipment while performing essential work in high heat environments.

Fleet and Safety collaborated in integrating Motor Vehicle Accidents reporting into SMS and in improving the Monthly Vehicle Inspections in SMS by including vehicle cleanliness as an inspection item to improve cleaning and disinfecting measures before servicing. Fleet employees are participating in EV training courses customized to suit SMUD’s needs in preparation for the transition to an all-electrified fleet by 2030.

All business units continue to partner in a consultative collaborative development of a World Class Safety program as One SMUD. One project that continues to support onsite personnel and operations by the Facilities department is installation of a passive HVAC ionization system called, needlepoint bipolar ionization (NPBI). Thus far DSO and SPA operations have units installed. With additional areas of the campus being assessed. These units have demonstrated performance in reducing indoor air particles during smoke wildfire events.

Driver Safety. In 2022 the Driver Safety program was reimplemented with COVID-19 safety protocols in place. Supervisors began conduction side by side ride alongs, in-person Smith System driving classes resumed and more Driving Rodeos were scheduled to meet demands. Due to the closure of 59th Street, the Driving Rodeo relocated to the HQ west parking lot however, with more employees returning to campus, another location was secured to accommodate the driving course. Safety and Facilities staff partnered with Safetyville to reserve space at the Army Depot for storage of equipment and supplies and set up multiple stations for the driving rodeo.
Appendix A

DART Count and OSHA Recordable 2012-2022
RESOLUTION NO. ______________

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

This Board accepts the monitoring report for Strategic Direction SD-6,

Safety Leadership, substantially in the form set forth in Attachment _____ hereto and
made a part hereof.
### BOARD AGENDA ITEM

**STAFFING SUMMARY SHEET**

**SSS No.**
AES22-109

**Committee Meeting & Date**
Policy – 10/12/22

**Board Meeting Date**
October 20, 2022

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#### Consent Calendar

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#### NARRATIVE:

**Requested Action:** Accept the monitoring report for Strategic Direction SD-10, Innovation.

**Summary:** SD-10 supports innovation by investigating emerging technologies, business models, and solutions that can provide value for SMUD, our customers, and our community. SMUD has developed a diverse portfolio of projects designed to balance risk with potential environmental and economic benefits that are intended to provide operational improvements, provide a more sustainable energy supply, and support, accelerate, or expand our ability to deliver on our carbon reduction goals.

**Board Policy:** SD-10, Innovation

**Benefits:** Benefits sought include accelerated technology deployments, innovative products & services, and an improved ability to meet SMUD's strategic directives such as environmental protection and climate change, reliability, local control, and energy efficiency and renewable energy goals.

**Cost/Budgeted:** Activities represented in the monitoring report were budgeted in the respective year in which they occurred.

**Alternatives:** Do not accept the monitoring report.

**Affected Parties:** Zero Carbon Energy Solutions, Enterprise Strategy, Customer & Community Services, Energy Delivery, Information Technology

**Coordination:** Zero Carbon Energy Solutions, Advanced Energy Solutions, Research & Development

**Presenter:** Ed Hamzawi, Director, Advanced Energy Solutions

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#### Additional Links:

**SUBJECT**
SD-10, Innovation Board Monitoring Report

**ITEM NO. (FOR LEGAL USE ONLY)**
7

 ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
TO: Board of Directors
FROM: Claire Rogers
SUBJECT: Audit Report No. 28007433
         Board Monitoring Report; SD-10: Innovation

Audit and Quality Services (AQS) received the SD-10 Innovation 2022 Annual Board Monitoring Report and performed the following:

- A review of the information presented in the report to determine the possible existence of material misstatements;
- Interviews with report contributors and verification of the methodology used to prepare the monitoring report; and
- Validation of the reasonableness of a selection of the report’s statements and assertions.

During the review, nothing came to AQS’ attention that would suggest the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:
Paul Lau
1) Background
SD-10 States: Delivering innovative solutions, products and services to our customers is a core value. To assure our long-term competitiveness, SMUD shall invest in research and development projects that support its core and key values, and integrate emerging technologies and new business models into SMUD’s customer offerings in a way that balances risk and opportunity and benefits our customers and community.

2) Executive Summary
SMUD’s Research & Development portfolio (R&D) addresses innovation and challenges in electric transportation, energy efficiency, building electrification, load flexibility, thermal transition, and climate change. The research provides insight into future planning and supports the development of near-term technology solutions for SMUD customers and the grid, in support of SMUD’s target of zero carbon by 2030 and associated thermal transition. A number of foundational initiatives were launched or expanded this year to support SMUD’s Zero Carbon Plan (ZCP) goals and significant effort was expended supporting the development of grant concepts to prepare SMUD to take advantage of pending state and federal funding opportunities.

Our conclusion is that SMUD is in compliance with SD-10 Innovation.

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<td>Project Implementation</td>
<td>Project distribution indicates breadth of portfolio diversity and prioritization of program areas.</td>
<td>42 active projects in 2022. 7 projects are complete as of September 1, 2022¹.</td>
<td>This reflects a 35% decrease in active projects and 56% reduction in completions compared to previous reporting period.</td>
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<td>Risk</td>
<td>Technology risk assesses ability to meet expected performance goals. Implementation risk assesses probability of deployment.</td>
<td>74% of projects are deemed low to medium-low technology risk. 72% are deemed low to medium-low implementation risk.</td>
<td>The risk portfolio is consistent with the previous reporting period. Potential risks are managed by creating a diversified portfolio and partnering with other entities to distribute risk and mitigation.</td>
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<td>Benefits</td>
<td>Research stage and benefits timeframe indicate the relevance of portfolio to address customer needs and strategic planning.</td>
<td>79% of projects are in stages 4-5². 91% are expected to provide benefits to SMUD or customers within 5 years.</td>
<td>Percent of stages 4-5 is consistent with 2021’s 80%, reflecting the shift in focus to near-term applications. Benefits time frame is consistent with 2021.</td>
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¹ Reporting metrics and achievements reflect the reporting period of October 1, 2021 – September 1, 2022.
² Stage 1 - Preliminary Investigation, Stage 2 - Concept Definition/Lab scale, Stage 3 - Concept Development (Prototype/bench scale), Stage 4 - Technology Development and Verification (pilot scale; field testing), Stage 5 - Commercialization

Table 1: SD Requirements Compliance
3) Additional Supporting Information

Project Implementation

SMUD's Research and Development team has the primary responsibility of meeting SD-10; however, notable relevant innovation occurs throughout SMUD.

Electric Transportation (ET)

Transportation electrification will improve air quality and reduce net greenhouse gas emissions and petroleum consumption to support energy sustainability, while creating new revenue streams for SMUD. This strategy is supported through investigation of mitigation of grid impacts due to charging, improvement of electric vehicles (EV) value via pricing signals and remote controls, increased EV adoption and access to charging.

Key Achievements:

- SMUD was awarded $2.23M by the California Energy Commission REACH grant for the ChargeReady Community project, which will deploy EV chargers in underserved multi-family homes. SMUD expects to sign the grant agreement with the CEC in Q4 2022, which will fund 60% of the total project cost.
- The Residential Managed EV Charging project launched and enrolled the first customers Q3 2022. SMUD is partnering with GM, Ford and BMW to incentivize Sacramento-area customers to charge their EVs when it’s most beneficial to the electric grid, using plentiful renewable energy. Customers plug in their vehicle and let the automaker know when their vehicle needs to be charged via a secure remote home charging management tool and smartphone apps.
- Building off the experience implementing the BESTFIT grant supporting the Twin Rivers Unified School District with equipment specifications and interconnection to pilot managed charging (V1G) and Vehicle-to-Grid (V2G) capabilities of electric school buses, SMUD is working to expand the pilot for V1G and V2G capabilities to other school districts and vendors with electric school bus fleets.
- SMUD's Fleet department is purchasing 5 medium-duty all-electric utility trucks from Zeus. Delivery of the trucks has been delayed by regulatory and technical issues, but they are in production and have received approval for state incentives for electric vehicles. R&D evaluation will commence upon delivery of the trucks.

Energy Efficiency (EE) & Electric Buildings (EB)

This program area optimizes energy delivery costs and improves grid asset utilization through targeted, time-specific energy efficiency and building electrification as well as by capturing permanent outcomes in building codes. R&D explores emerging and underutilized technologies; working to enhance advanced applications in building decarbonization and energy efficiency and increase technology adoption.

Key Achievements:

- SMUD returned as a founding sponsor and contributing member of the Advanced Water Heating Initiative, an initiative formed to increase adoption of heat pump water heaters nationally. SMUD R&D team members lead the AWHI Residential Group, and a task group delivering a proposal for national Data Standardization and Sharing.
• The 120V Heat Pump Water Heater Field Trial has begun installations in customers' homes. 12 installations are expected to be completed in 2022, with monitoring and analysis complete by early 2024. The trial will investigate potential installation, performance, or customer satisfaction issues with these new units that avoid the need for a new 240V circuit to electrify the water heater.

• Completed evaluation of a novel, central heat pump water heater design without electric resistance backup elements at St. Francis Manor, a high-rise 128-unit senior community. Analysis showed 20% bill savings and 54% reduction in CO2 emissions annually compared to the gas boiler that was replaced.

• Staff completed phase 1 of the Home Infrastructure Planning project, creating a data collection and cleaning process for data sourced from inside and outside SMUD. Analysis to identify the magnitude and shape of load impacts to residential customers due to home electrification retrofits will be used in Phase 2 starting in 2023 to develop tools and forecasts to help distribution planners and customers make optimal decisions regarding utility service upgrades.

**Load Flexibility**
This program supports cost-effective, reliable, scalable flexible resource growth to serve future grid needs. R&D determines functional, operational and market viability of flexible loads to align supply and demand, give customers bill management options, improve air quality, and reduce carbon emissions.

Key Achievements:
• SMUD launched the My Energy Optimizer, Partner level, in June 2022 to evaluate aggregator management of multiple customer DERs to support grid services. The pilot leverages an aggregator to enroll customers and automate the response of their smart thermostats and batteries to utility dispatch signals, including a subset of customers enrolled on SMUD's Critical Peak Pricing rate. SMUD is launching Partner+ this fall, a program that leverages customer-owned and sited battery storage to operate a Virtual Power Plant, maximizing value to customers and benefitting the grid at times of high carbon intensity.

• SMUD is partnering with UC Davis and Panasonic to pilot the EnergyKit home energy management system in 8 SMUD customer homes. Customers will be able to automate their electric appliances, optimizing for comfort, convenience, and cost, in response to SMUD dispatch signals.

**Thermal Transition**
R&D pursues innovative grid, storage and generation solutions to facilitate SMUD's goal of zero carbon by 2030 and accelerate interconnection of grid-connected systems and devices to ensure safe and efficient operation. This program supports system reliability and reducing emissions through alignment of DERs and zero-carbon generation with grid needs. It seeks to improve grid reliability through reduced outage frequency and duration; control of the distribution system, voltage and frequency variations, and
overload conditions; and optimize grid benefits of DERs through advancing integration standards and coordinated automation.

Key Achievements:

- SMUD completed construction and all commissioning tests for grid support functionality for our first utility-scale battery project adjacent to Hedge substation. SMUD also received an EPRI Technology Transfer award for applying phase 1 of the EPRI Fire Prevention & Mitigation Project to the Hedge Battery. SMUD enrolled in phase 2 which includes developing training for first responders.
- Q3 2022, staff issued a Request for Information regarding Long Duration Energy Storage solutions to support SMUD’s Zero Carbon Plan. The intent is to identify promising technological solutions to provide 300 MW of long duration energy storage with duration capability at least 8-10 hours at full output to maintain resiliency in an increasingly renewable generation portfolio.
- The EPRI supplemental project assessing NET Power’s Allam Fetvedt Cycle (a Super Critical CO2 Cycle) found that this carbon capture technology is not yet ready for utility implementation.
- The analysis of alternative fuels shortlisted two zero carbon fuel types (Renewable Natural Gas and Hydrogen) and five pathways as deserving of closer scrutiny. The five pathways include Renewable Natural Gas from dairy, landfill, wastewater and Forest Waste Biogas and Electrolytic Green Hydrogen.
- SMUD is one of 20+ industry and academia participants and eight National Labs collaborating on $12.45M DOE grant for hydrogen blending research. Testing is underway to understand what upgrades to our pipeline would be needed to support up to 100% replacement of natural gas with hydrogen, supporting SMUD’s zero carbon goal.
- The PREconfiguring and Controlling Inverter SEt-points (PRECISE™) software tool was developed at the National Renewable Energy Laboratory, with SMUD collaboration, and won the R&D 100 Award in 2019 from R&D World Magazine. In 2022, SMUD successfully finished implementing the tool with SMUD systems to enable interconnection of more behind the meter (BTM) PV while mitigating grid power quality issues by leveraging advanced inverter settings.
- Installed and began testing direct communication to smart-inverters to evaluate their potential to support distribution operations via the DERMS and the ability to replace PV production meters for residential customers.

**Climate Change**

This program provides technical, economic, and policy expertise on climate change and impacts to SMUD territory. It compliments SMUD’s Zero Carbon Plan and aligns with our board direction to address climate vulnerabilities, and we partner with our customers and community on mitigation opportunities and regenerative, net positive projects.

Key Achievements:

- Carbon Farming and Ecosystem Service Research kicked off at Rancho Seco II. The project will evaluate the use of native pollinator plant species to reduce operational costs associated with vegetation management, erosion control and fire protection at utility...
solar sites, quantify the impact on the power production of the PV system, and measure the carbon captured and sequestered in the soil by these plants.

**Enterprise-Wide Innovations**
While SD-10 innovation goals are met by R&D research programs, additional notable achievements occurred across SMUD supporting progressive customer offerings.

- The Innovation Program has continued to encourage employee participation in innovation at SMUD to accelerate digitization, drive acquisition of new data, embrace new technologies, expand new business models, and build new ecosystems to solve for SMUD’s 2030 zero carbon objective and operational efficiencies. In 2022, 38 new ideas were submitted through IdeaHub, bringing the total to 79. Concepts successfully operationalized include:
  - Name Pronunciation Recording enables employees to record how to properly pronounce their name, which promotes equity and inclusion.
  - RealWear Headsets enable multiple subject matter experts to virtually attend a site visit with only one staff member physically deployed in the field, reducing travel and associated risks and costs.
- ADMS development complete, implemented Q3 2022. DERMs Phase 1 developed, implemented Q3 2022. Phases 2-3 are planned to go live Q1 2024.

**Summary**
As SMUD shifts to implementation of the 2030 Zero Carbon Plan, R&D has focused on ramping up efforts supporting thermal transition and load flexibility technologies and business models leveraging storage, electric transportation, and buildings, while we continue to advance research in climate change. These innovations expand customer choice and offer new solutions toward a low carbon future. Our diverse portfolio helps maintain long-term competitiveness and balance risk with potential environmental and economic benefits, ensuring community benefits.

**4) Challenges**
2022 continued in a primarily remote work environment due to the ongoing health pandemic, with increasing concern about supply chain and inflationary impacts. The new Enterprise Prioritization process involved a learning curve for staff submitting proposals for research and innovation. Staff resources were balanced between project planning and implementation and grant planning and acquisition to reduce SMUD’s cost for research and demonstration projects. R&D revised the team reporting structure to better reflect two pillars of the zero carbon plan, thermal transition technologies and customer programs, and staff time was focused on providing subject matter expertise for efforts supporting zero carbon by 2030.

**5) Recommendation:** Recommend the Board accept the SD-10 Monitoring Report.
### Table 2: R&D Projects

<table>
<thead>
<tr>
<th>Research Program</th>
<th>ID</th>
<th>Project Name</th>
<th>Project Description</th>
<th>SD-10 Benefits</th>
<th>Start Date</th>
<th>End Date</th>
<th>Ward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Electrification</td>
<td>11</td>
<td>Direct Bury Customer and Building Analysis</td>
<td>Identify the locations, characteristics, and electrification market barriers for customers who are currently served by direct burial cables (DBC).</td>
<td>This will provide insights into the characteristics of DBC customers, and the related challenges to SMUD’s decarbonization efforts.</td>
<td>9/28/2020</td>
<td>12/31/2021</td>
<td>All</td>
</tr>
<tr>
<td>Building Electrification</td>
<td>12</td>
<td>Electrification Readiness Study</td>
<td>Conduct an expedited utility industry analysis to identify key insights from utilities, community choice aggregators (CCAs), and other key market actors to accelerate electrification programs. The analysis informs a research-based approach for accelerating SMUD’s own electrification programs.</td>
<td>Establishes a new paradigm for how research informs the development of incentive programs. Identifies opportunities for incentive programs to maximize outcomes like GHG savings, equity, and affordability. Creates rapid feedback on the performance of new technologies within programs.</td>
<td>8/20/2020</td>
<td>1/28/2022</td>
<td>All</td>
</tr>
<tr>
<td>Building Electrification</td>
<td>67</td>
<td>St. Francis Manor Central HPWH Study</td>
<td>SMUD staff will monitor the performance and benefits of converting a gas powered (boiler) domestic hot water system to a heat pump water heater (HPWH) driven system. The system will allow the customer to electrify the bulk of the hot water demand while not straining the electrical panel.</td>
<td>Confirm the realized savings and benefit of replacing existing boiler and gas-powered hot water systems in a central plant, which will inform replacements for the 50-100 similar commercial sites within SMUD territory that could electrify the hot water system.</td>
<td>4/1/2021</td>
<td>5/31/2022</td>
<td>5</td>
</tr>
<tr>
<td>Building Electrification</td>
<td>72</td>
<td>120V Heat Pump Water Heater Field Trial</td>
<td>Objective is to overcome electrification barriers by increasing options that reduce impacts on panel upgrades and provides solutions for space constraints such as multifamily. Conduct a statewide field trial of 120V heat pump water heaters, to ensure their performance meets the needs of customers, and to investigate typical installation costs and technical hurdles. The field trial is being conducted in coordination with other CA utilities as part of the Advanced Water Heater Initiative. 12 homes in SMUD territory will take part, out of a project total of around 60 homes.</td>
<td>SMUD will be one of the first utilities nationally to deploy 120V HPWH as part of a program. In parallel with introducing this new technology without delay, SMUD is testing its effectiveness in the field, in order to make course corrections to the technology and program delivery as needed.</td>
<td>4/27/2021</td>
<td>12/31/2023</td>
<td>All</td>
</tr>
<tr>
<td>Building Electrification</td>
<td>112</td>
<td>Home Infrastructure Planning Phase 1</td>
<td>Phase I leverages historical SMUD single-family electrification programs data to understand drivers for service panel upgrades. Collaboration with SMUD IT will generate Machine Learning predictions based on building attributes, customer demographics, and existing infrastructure. In later phases, these predictions will be the basis for customer engagements on building electrification, incentives programs, and predictive distribution planning.</td>
<td>Generating insights about infrastructure upgrades for SMUD distribution planners, electrification program designers, and SMUD Customers. The innovative tools produced in this project will help scale programs and optimally allocate resources towards 2030 ZCP goals.</td>
<td>10/22/2021</td>
<td>11/25/2022</td>
<td>All</td>
</tr>
<tr>
<td>Building Electrification</td>
<td>115</td>
<td>Advanced Water Heating Initiative 2022 Sponsorship</td>
<td>SMUD is continuing as a 2022 sponsor of the Advanced Water Heater Initiative, which seeks to dramatically expand the heat pump water heater market using advocacy, program alignment, and research. SMUD was a founding sponsor of AWHI in 2021. The U.S DOE supports the initiative.</td>
<td>The project will set out a consensus agenda and process for water heating research, specifically joint research between utilities. It will also bring together best practices to ensure that SMUD and other utilities are implementing the most innovative programs.</td>
<td>1/1/2022</td>
<td>12/31/2022</td>
<td>All</td>
</tr>
<tr>
<td>Climate Change</td>
<td>64</td>
<td>Carbon Farming and Ecosystem Service Research at RSSII</td>
<td>Conduct field experiments at Rancho Seco to research ecosystems and evaluate the use of native species/pollinators to reduce the operational costs associated with vegetation management, erosion control, and fire protection. The project will explore the effects of vegetation and panel layout on PV generation and soil carbon.</td>
<td>The project will help identify and demonstrate strategies to integrate ecosystem services and agricultural value into large scale solar projects, helping to mitigate their environmental impact and build public support for their continued construction, assisting SMUD in achieving the 2030 ZCP.</td>
<td>1/30/2021</td>
<td>1/30/2026</td>
<td>2</td>
</tr>
<tr>
<td>Climate Change</td>
<td>96</td>
<td>EPRI Evaluating Landholdings for Monarch Habitat</td>
<td>The SMUD Pollinator working group will determine recommended actions, including proposed acres, timing and cost for enrollment in the CCAA, if appropriate.</td>
<td>Assists SMUD in understanding opportunities and costs associated with enrollment in the Monarch butterfly CCAA and compliance with a potential future Endangered Species Act listing.</td>
<td>3/1/2021</td>
<td>7/31/2022</td>
<td>All</td>
</tr>
<tr>
<td>Climate Change</td>
<td>109</td>
<td>Natural Refrigerant Incentive Pilot Program</td>
<td>Provides incentive for customer natural refrigerant systems, replacing super-polluting conventional refrigerants with high global warming potential. SMUD's first incentive program based on GHG reduction, not kWh savings. Monitored field pilots are underway at Grocery Outlet and Raley's stores in Sacramento.</td>
<td>DEED grant funding ($125K) was secured to support the Grocery Outlet project and technology transfer. First of its kind for the utility industry, this program demonstrates SMUD's leadership in leveraging relationships with our customers to help them save money and reduce GHG emissions in the region.</td>
<td>1/1/2018</td>
<td>12/31/2022</td>
<td>All</td>
</tr>
<tr>
<td>Electric Transportation</td>
<td>15</td>
<td>Zeus Electric Truck Deployment</td>
<td>Collaboration with the California Mobility Center and Zeus Electric Chassis to deploy and test five Medium-Duty Electric Vehicles. Five unique configurations of the Zeus truck will operate in SMUD’s fleet to study the performance, duty-cycle, and costs associated with utilizing electric trucks.</td>
<td>Inform both SMUD operations and customers of the challenges and benefits of fleet electrification. This project synergizes with the launch of the California Mobility Center which will support local economies and improve health and safety in DACs.</td>
<td>1/3/2023</td>
<td>6/30/2023</td>
<td>All</td>
</tr>
<tr>
<td>Electric Transportation</td>
<td>17</td>
<td>Del Paso Mobility Hub</td>
<td>Help create an e-Mobility hub for different modes of transportation, such as taxis, Uber, Jump, buses, etc. It will also include EV charging capability as well as gig cars. The first project in execution is the Del Paso Mobility Hub.</td>
<td>This is a novel project and transportation facility concept. It includes electric and fuel cell vehicles, including an electric shuttle, EV charging, shared vehicles, electric micro-mobility (ebikes and electric scooters) and transportation services.</td>
<td>9/1/2022</td>
<td>8/31/2023</td>
<td>5</td>
</tr>
<tr>
<td>Electric Transportation</td>
<td>18</td>
<td>Mobi EV and Gen Charger Loan Pilot Program</td>
<td>Test and understand the technical and economic viability as well as the logistic application of mobile electric vehicle (EV) chargers and battery powered generators to support the development of transportation electrification and elimination fossil fuel generators. SMUD loans the units to customers who can demonstrate they have a need for the chargers at no cost.</td>
<td>Acquire knowledge about mobile battery powered EV chargers and generators, which may play key roles in transportation electrification. This pilot also yields learnings regarding loan programs and potential revenues from rental units.</td>
<td>8/3/2020</td>
<td>3/31/2022</td>
<td>All</td>
</tr>
</tbody>
</table>
### Electric Transportation

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Description</th>
<th>Goal/Outcomes</th>
<th>Start Date</th>
<th>End Date</th>
<th>Education/Informational Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Twin Rivers Commercial Managed Charging (V1G, V2G)</td>
<td>Incorporate electric school buses and light duty vehicles to evaluate the effectiveness of managed charging and vehicle-to-grid capabilities to balance impacts on customer and utility electrical distribution and create value through grid services.</td>
<td>V1G findings will support smart charging applications which can mitigate customer charging costs and support grid management and deferred infrastructure upgrades. Reduce grid impacts, reduced customer infrastructure build-out cost, wholesale energy or capacity cost avoidance, and mirror characteristics of stationary storage using V2G.</td>
<td>1/30/2021</td>
<td>9/30/2024</td>
<td>5</td>
</tr>
<tr>
<td>21 EPRI Qualification of EVSE</td>
<td>Produce a compliance matrix for EVSE that SMUD will be able to use to qualify EVSE vendors for our EV-related programs.</td>
<td>Increase EV adoption by having publicly available working charging stations in high trafficked areas.</td>
<td>1/6/2020</td>
<td>3/31/2022</td>
<td>All</td>
</tr>
<tr>
<td>22 Residential Managed EV Charging (V1G)</td>
<td>Actively manage residential EV charging times and peak power consumption. Managed EV charging can enable deferment of distribution system upgrades, smooth the duck curve, reduce renewable generation curtailment, and provide import and export arbitrage opportunities.</td>
<td>Benefits include reduction of the financial risks associated with transportation electrification, specifically by mitigating the risk of overloading electrical distribution infrastructure. Another secondary benefit is to better align energy delivery for charging with low-cost energy supply.</td>
<td>10/1/2021</td>
<td>12/30/2024</td>
<td>All</td>
</tr>
<tr>
<td>24 SMUD-Owned EVSE</td>
<td>Operation and maintenance of SMUD's public level 2 and DCFC charging stations.</td>
<td>Increase EV adoption by having publicly available working charging stations in high trafficked areas.</td>
<td>1/1/2014</td>
<td>12/31/2027</td>
<td>All</td>
</tr>
<tr>
<td>97 ChargeReady Community</td>
<td>ChargeReady Community is the Sacramento region's replicable, equity-first EV charging solution for multi-family housing (MFH). Powered by SMUD and in partnership with community-based organization and site host Mutual Housing California and Sacramento Metropolitan Air Quality Management District, ChargeReady Community will deploy a pilot model that transitions EV charging in under-resourced communities from inaccessible amenity to expected, critical infrastructure.</td>
<td>Help SMUD better understand the challenges and opportunities of deploying EVSEs in multi-unit dwelling in underserved communities, helping SMUD advance the adoption of electric transportation, which contributes to GHG emissions reductions, and promoting equity in transportation.</td>
<td>5/11/2022</td>
<td>6/30/2025</td>
<td>All</td>
</tr>
<tr>
<td>104 Light Duty Fleet V2G</td>
<td>This project will test and demonstrate V2X functionality on campus with capable fleet vehicles such as the Nissan Leaf and Ford F150 Lightning. We hope to understand interconnection process, installation requirements, and V2X functionality through this project before proposing a larger scale pilot.</td>
<td>Informed deployment of light-duty V2X will reduce grid impacts and customer infrastructure build-out costs. LDV fleet management can also offer wholesale energy or capacity cost avoidance, and mirror characteristics of stationary storage.</td>
<td>1/1/2022</td>
<td>12/31/2023</td>
<td>All</td>
</tr>
<tr>
<td>107 V2G Commercial Expansion</td>
<td>This project will build off the electric school bus project with Twin Rivers Unified School District. We will demonstrate and test Automated Load Management, Managed Charging, and Vehicle to Grid functionality with electric school buses and other capable EVs.</td>
<td>Reduce grid impacts, reduced customer infrastructure build-out cost, wholesale energy or capacity cost avoidance, and mirror characteristics of stationary storage using V2G.</td>
<td>1/1/2022</td>
<td>5/30/2024</td>
<td>All</td>
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<tr>
<td>Energy Storage</td>
<td>#</td>
<td>Description</td>
<td>Details</td>
<td></td>
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<tr>
<td>Residential Energy Storage Programs</td>
<td>5</td>
<td>Continuation of Residential BTM energy storage systems including Commitment to Operate, Smart Energy Optimizer, and PowerMinder. Study of these systems will answer research questions regarding how customers respond to dispatch models, what communication standards could promote battery manufacturer relationships and data communication quality.</td>
<td>Residential BTM energy storage are customer-facing innovations that will provide resilience and system benefits to customers and SMUD alike. This work will inform future pilots including Multi- DER and Capacity Contracts VPPs. 1/1/2021 12/31/2023 All</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hedge Utility-Scale Battery</td>
<td>6</td>
<td>Deployment and operation of a 4 MW / 8 MWh utility-scale storage battery to test different operational modes and grid interactions.</td>
<td>The Hedge Battery supports the StorageShares program and SMUD’s goal of adding 1,100 MWs of battery capacity in the coming decade. Proximity to the Sacramento Power Academy training facility will foster opportunities for workforce development in battery storage operations. 3/1/2019 12/31/2023 3</td>
<td></td>
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</tr>
<tr>
<td>Integrated EV Charging with Storage and Solar PV</td>
<td>26</td>
<td>Install and test a new 175 kW DC Fast Charger and 2nd-life battery storage. Integrate solar, storage, and EV charging into an advance site controller.</td>
<td>Help promote EV adoption by using load management to prevent unnecessary infrastructure installations, ultimately saving the customer and SMUD time and money. 11/5/2018 12/31/2021 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunverge in Schools</td>
<td>29</td>
<td>Partner with schools to install eight battery energy storage units at high schools or colleges to provide early hands-on education of battery energy storage systems.</td>
<td>Support local workforce development by developing a battery energy storage curriculum and installing battery energy storage system at educational institutes. 1/1/2021 12/31/2022</td>
<td></td>
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<tr>
<td>LDES Market &amp; Technology Report</td>
<td>87</td>
<td>This project performed detailed technology and cost characterization of Long Duration Energy Storage (LDES) technologies. Perform an assessment of the viability and adoption of LDES that provide compelling features to help mitigate the issues associated with variable and intermittent renewables by improving its dispatchability and help meet or exceed SMUD’s Zero Carbon Plan (ZCP). Investigate current, planned and potential LDES technologies that will provide highest values to SMUD. Perform comparative analysis of viable LDES technologies, discuss pros &amp; cons, along with attributes for next steps that will meet or exceed ZCP.</td>
<td>Empower SMUD planners to make confident technology decisions along the flexible path to zero carbon. These technologies will provide grid stability and predictable electricity prices for SMUD customers. 4/29/2021 4/29/2022 All</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy Digesters eRIN Applications</td>
<td>34</td>
<td>Develop and submit the biogas-to-electricity pathway applications for Van Steyn, Van Warmerdam and New Hope dairy digesters under the Renewable Fuel Standard (RFS) for electricity Renewable Identification Number (eRIN) credits, generated when electricity produced from dairy digester biogas is used to charge electric vehicles in SMUD service territory.</td>
<td>The use of eRIN credits could unlock $0.12/kWh to $0.33/kWh of electricity generated for electric vehicle charging. This legal and financial innovation offer sound investment into biofuels production and carbon-negative transportation for electric vehicles. 1/1/2021 12/31/2022 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generation and Sequestration</td>
<td>Appendix</td>
<td>PRECISE Project Phase 2</td>
<td>Evaluate PV interconnection applications and identify the advanced inverter settings that each PV system to be set to. This process will significantly save SMUD engineer’s time and yet maximize the benefit of each asset.</td>
<td>Increased safety and avoiding reprogramming of advanced inverters post-install, and minimizing curtailment. Deploying the tool in a real utility environment would advance chances of commercialization of PRECISE and revenues to SMUD.</td>
<td>1/1/2019</td>
</tr>
<tr>
<td>Generation and Sequestration</td>
<td>Appendix</td>
<td>LCFS Electricity Pathways for Dairy Digesters, Solar and Wind</td>
<td>LCFS Electricity pathway applications for Van Warmerdam, Van Steyn and New Hope dairy digesters, wastewater biogas and wind/solar that perform carbon intensity life cycle modeling, certification, verification, monetization, and reporting for LCFS credits to charge electric vehicles in SMUD territory. This initiative stimulates revenue generation, supports the growth of electric transportation and advanced renewable generation and helps achieve carbon zero target goal.</td>
<td>At full utilization of the 30 dairies and 14,000 cows in SMUD territory, the dairy digesters could offset a minimum of 70,000 Metric Tons of CO2 per year, while garnering $12.6 Million per year in LCFS credits. In 2021, Van Warmerdam and Van Steyn reduced 7,856 MT of GHG worth $1.2M LCFS. This project also proved the financial viability of Zero Carbon Intensity (CI) wind generation, which garnered approximately $1 Million from LCFS.</td>
<td>6/1/2019</td>
</tr>
<tr>
<td>Generation and Sequestration</td>
<td>Appendix</td>
<td>DER Carbon Tool</td>
<td>Expand DER planning and modeling tool that assesses carbon reduction/savings, budgeting, portfolio optimization, cost effectiveness and load forecasting to include EE, Load flexibility, ET solar PV and battery storage measures.</td>
<td>Provide hourly forecasting of load shapes, evaluate carbon impacts and cost effectiveness for programs. Provides insights about DER valuation and the attribution of GHG reductions.</td>
<td>11/1/2020</td>
</tr>
<tr>
<td>Generation and Sequestration</td>
<td>Appendix</td>
<td>Wind Resources in Northern CA, 2 Terrawathours</td>
<td>This study will help SMUD identify sites in Northern California suitable for adding wind generation. The work will be performed by a consultant.</td>
<td>Identifying areas outside of SMUD's service territory suitable for wind resource, will enable SMUD to remain on track to meet the 2030 carbon reduction goals.</td>
<td>4/28/2021</td>
</tr>
<tr>
<td>Generation and Sequestration</td>
<td>Appendix</td>
<td>NET Power – Allam Fetvedt Cycle (Super Critical CO2 Cycle) Study</td>
<td>Participation in the EPRI supplemental project which will perform research on the Allam Fetvedt Cycle for supercritical carbon capture. The project will yield a technology assessment, value proposition, and analysis of SMUD-focused applications.</td>
<td>Key information will be provided on the design of Allam-Fetvedt Cycles during this project, along with detailed testing data and performance assessments. The project will look to provide insights and lessons learned on the technology and its operations, giving more evidence of its potential viability for low-carbon power generation.</td>
<td>4/28/2021</td>
</tr>
<tr>
<td>Generation and Sequestration</td>
<td>Appendix</td>
<td>Assessments of Alternative Fuels (Generation)</td>
<td>SMUD will hire a consultant to explore the feasibility of using renewable ethanol, biodiesel, renewable diesel, RNG &amp; others as potential fuel-sources for our thermal generation assets.</td>
<td>This assessment will facilitate enterprise decision-making, providing a deep understanding of the resource sustainability, supply chain landscape, price forecasts, market trends, and techno-economic feasibility of each biofuel.</td>
<td>4/28/2021</td>
</tr>
<tr>
<td>Generation and Sequestration</td>
<td>Appendix</td>
<td>Hydrogen Blend Collaborative Research</td>
<td>Address the barriers on pipeline materials compatibility and degradation related to the blending of hydrogen into natural gas pipelines, a concept referred to as HyBlend. SMUD will provide data and serve as one of the injection points of H2. The data that will be</td>
<td>The HyBlend project will specify the role Hydrogen can play in the transformation of SMUD’s thermal generation. HyBlend is a leading fuel choice that offers benefits for seasonal energy storage, resilience, and GHG emissions reductions.</td>
<td>7/1/2021</td>
</tr>
<tr>
<td>Grid Evolution</td>
<td>Project</td>
<td>Description</td>
<td>Benefits</td>
<td>Start Date</td>
<td>End Date</td>
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<tr>
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<td>----------</td>
</tr>
<tr>
<td>36</td>
<td>EPRI SHINES</td>
<td>Beneficial integration of solar PV, energy storage, load management, and solar forecasting. EPRI will test the architecture at three sites to compare configurations and size, as well as grid connections, and solar generation variability.</td>
<td>Enhanced grid operations, increased PV deployments, time shifting of solar generation, improved generation/load profiles, reduced grid impacts and interconnection processing time and cost.</td>
<td>11/1/2019</td>
<td>4/29/2022</td>
</tr>
<tr>
<td>45</td>
<td>Transmission Line Monitoring</td>
<td>Test the achievability and usability of Dynamic Line Ratings (DLR) to inform short-term operational and long-term planning decisions, using the LineVision V3 monitoring system.</td>
<td>Increases efficiency of transmission asset utilization while maintaining reliability. Advanced line rating methodologies can result in cost savings and operational benefits.</td>
<td>4/22/2021</td>
<td>12/31/2023</td>
</tr>
<tr>
<td>52</td>
<td>HQ Solar Port Microgrid</td>
<td>Install and commission a small microgrid at the HQ Solar port using second-life batteries, solar and an advance site controller. These activities provide insights regarding DSO operating processes, microgrid maintenance downtimes, data communication, and operations during normal and emergency conditions.</td>
<td>Microgrids can increase reliability by providing backup power to customers during power outages using renewable generation, reduce transmission infrastructure needs, and hedge against volatile energy markets.</td>
<td>1/1/2021</td>
<td>12/1/2022</td>
</tr>
<tr>
<td>61</td>
<td>3M Spartan II</td>
<td>The Spartan units will be used to gain visibility on the downtown network where we currently have none.</td>
<td>Savings on SCADA for the downtown network and reduction in time for restoring service.</td>
<td>11/5/2018</td>
<td>11/5/2021</td>
</tr>
<tr>
<td>80</td>
<td>EPRI 2021 Utility Blockchain Interest Group</td>
<td>Work alongside other utilities to expand knowledge of blockchain technology and its potential applications. Enable collaboration among utilities and act as a bridge to the startup/vendor community, compile and track a comprehensive list of global utility blockchain pilots and extract and document industry trends, lessons learned and key insights.</td>
<td>Through a collaborative approach, expand utility knowledge of blockchain technology and its potential applications in the industry. Enable collaboration opportunities among utilities and act as a bridge to the startup/vendor community.</td>
<td>1/1/2021</td>
<td>12/31/2021</td>
</tr>
<tr>
<td>89</td>
<td>Smart Inverters</td>
<td>This project will test smart inverter connection via two pathways: direct connection and through vendors/aggregators. Direct connection will assist in development of the DERMS, while the vendor/aggregator pathway leverage OEM and aggregator relationships to establish pilot access agreements to a broader range of smart inverters.</td>
<td>Smart inverters are new technology that allows SMUD to monitor residential PV and storage and provides control functionality to assist in grid support.</td>
<td>7/1/2021</td>
<td>3/31/2023</td>
</tr>
<tr>
<td>100</td>
<td>EPRI Transmission &amp; Substations Collaborator Project</td>
<td>Participation in this EPRI collaborative enables SMUD to stay current on industry-wide EPRI R&amp;D, including results of advanced technology testing, software tool development, reference guides and the application of research results.</td>
<td>Apply EPRI tools and research results in Overhead Lines, Underground Lines, Substations, and Asset Analytics. Increased knowledge of failure rates and emerging issues by contributing to and accessing EPRI’s T&amp;S Asset Industry-Wide Databases.</td>
<td>1/1/2021</td>
<td>12/31/2021</td>
</tr>
</tbody>
</table>
This project will research the ability of the proposed solution to orchestrate a diversity of qualifying residential customer-sited devices to deliver load flexibility needs throughout the year and to assess whether it makes sense to continue to scale-up.

Upon successful completion of the Multi-DER VPP, SMUD will have a reliable flexible residential load program. This load will be integrated with the DERMS and allow SMUD to operate as required for business needs (EIM/RA/Emergency).

SMUD will have a reliable flexible residential load program. This load will be integrated with the DERMS and allow SMUD to operate as required for business needs (EIM/RA/Emergency).

Load Flexibility

Load Flexibility

Load Flexibility

Table 3: Enterprise-Wide Initiatives

<table>
<thead>
<tr>
<th>Initiative Name</th>
<th>Initiative Description</th>
<th>Initiative Benefits</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation Program (IdeaHub)</td>
<td>Innovation at SMUD comprises of exploratory activities related to new strategies. The IDEAHub portal captures technology, business model, and operational efficiency opportunities submitted by employees to support SMUD Innovation.</td>
<td>The Innovation team will propel us towards our 2030 absolute zero carbon goal by balancing diverse emerging technologies and ideas across the organization that drive operational efficiencies and competitive advantage with a centralized team that can champion breakthrough innovations.</td>
<td>2021</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Name Pronunciation Recording</td>
<td>SMUD'S IT team worked to identify software that can support an employee recording the pronunciation of their name so that colleagues can learn the correct way to pronounce names that may appear unfamiliar.</td>
<td>This software solutions helps employees learn other employee’s names, increasing inclusion and employee morale.</td>
<td>11/10/2021</td>
<td>6/14/2022</td>
</tr>
<tr>
<td>RealWear Headsets</td>
<td>RealWear Headsets allow staff to call in to site visits and see a live video feed from their computer and communicate in real-time with the person in the field.</td>
<td>Using RealWear camera allows one subject matter expert to attend site visits while other SMEs participate from their home/office. This reduces the number of staff required to travel and attend field meetings in person.</td>
<td>8/27/2021</td>
<td>6/15/2022</td>
</tr>
<tr>
<td>DERMS</td>
<td>Strategic business partnership with OSI to develop a Distributed Energy Resource Management System whereas SCADA and behind the meter resources can be used to solve distribution constraints, participate in the market, and manage flexibles loads.</td>
<td>Leverage DER capabilities to meet economic objectives, peak load reduction, local constraint issues, deferred infrastructure investment, and grid optimization. As OSI’s partner, SMUD shares revenue from future sales.</td>
<td>2018</td>
<td>2028</td>
</tr>
<tr>
<td>ADMS</td>
<td>Implement a real-time Advanced Distribution Management System (ADMS) Platform (DMS and D-SCADA) to improve management and control of distribution system, enhance distribution operations functions, optimize distribution system and improve forecasting accuracy.</td>
<td>ADMS is the foundation to support providing SMUD’s Distribution System Operations a 360 view of distribution and is required to support future DERMS Phases.</td>
<td>02/2018</td>
<td>2022</td>
</tr>
</tbody>
</table>
RESOLUTION NO. ______________

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

This Board accepts the monitoring report for Strategic Direction SD-10, Innovation, substantially in the form set forth in Attachment ____ hereto and made a part hereof.
**BOARD AGENDA ITEM**

**STAFFING SUMMARY SHEET**

**Requested Action:** Accept the monitoring report for Strategic Direction SD-19, Diversified Business.

**Summary:**
The purpose is to provide the Board with an update on SD-19, Diversified Business, for 2021. SMUD has three revenue portfolios that are delivering revenues from sources other than traditional electricity sales to customers. They are comprised of a diverse mix of projects that leverage SMUD’s brand, intellectual property and assets to create new revenues for SMUD.

For 2021, the three portfolios generated $14.7M in revenues.

**Board Policy:** Strategic Direction SD-19, Diversified Business

**Benefits:** These portfolios support the goals and objectives of SMUD’s Enterprise Strategy of Affordability through:
1) Operational Excellence with respect to better utilization of existing assets, and 2) Partnerships with respect to creating new revenue streams.

**Cost/Budgeted:** Budgeted

**Alternatives:** Provide the Board written reports and communications through the CEO/General Manager.

**Affected Parties:** N/A

**Coordination:** Budget Office, Audit & Quality Services

**Presenter:** Rachel Huang, Director, Customer & Grid Strategy

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<table>
<thead>
<tr>
<th>TO</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bryan Swann</td>
<td>6. Suresh Kotha</td>
</tr>
<tr>
<td>2. Claire Rogers</td>
<td>7. Brandy Bolden</td>
</tr>
<tr>
<td>4. Lora Anguay</td>
<td>9. Legal</td>
</tr>
<tr>
<td>5. Jennifer Davidson</td>
<td>10. CEO &amp; General Manager</td>
</tr>
</tbody>
</table>

**Consent Calendar:** Yes

**If no, schedule a dry run presentation:** Yes

**Budgeted:** Yes

**If no, explain in Cost/Budgeted section:**

**FROM (IPR):**
Rachel Huang

**DEPARTMENT:** Customer & Grid Strategy

**MAIL STOP EXT. DATE SENT**
B305 6930 9/19/2022

**Additional Links:**

**SUBJECT**
SD-19 Diversified Business 2021 Monitoring Report

**ITEM NO. (FOR LEGAL USE ONLY):** 8

**ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.**
TO:        Board of Directors            DATE: September 28, 2022

FROM:   Claire Rogers CR 9/28/22

SUBJECT: Audit Report No. 28007423
         Board Monitoring Report; SD-19: Diversified Business

Audit and Quality Services (AQS) received the SD-19 *Diversified Business* 2021 Annual Board Monitoring Report and performed the following:

- A review of the information presented in the report to determine the possible existence of material misstatements;
- Interviews with report contributors and verification of the methodology used to prepare the monitoring report; and
- Validation of the reasonableness of a selection of the report’s statements and assertions.

During the review, nothing came to AQS' attention that would suggest the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:
Paul Lau
1) **Background**

Strategic Direction SD-19 states that:

Broadening and diversifying the products and services that SMUD offers is a key value. The desired results are to: a) generate new revenues that contribute to SMUD’s long-term financial health; b) spur the creation of innovative products and services; c) capture the value of SMUD’s brand and intellectual property; d) better leverage and optimize SMUD’s assets; and e) enable SMUD to continue to attract and retain a talented workforce.

Therefore:

a) SMUD shall broaden and diversify its lines of business, which may include:
   i) Being an external service provider;
   ii) Expanding wholesale energy market opportunities;
   iii) Capitalizing on intellectual property and assets to develop products and services either solely or through strategic partnerships;
   iv) Selling products and services aligned with SMUD’s purpose and Strategic Directions.

b) SMUD shall ensure any new lines of business:
   i) Benefit SMUD’s customers and our community;
   ii) Achieve a balanced, diversified portfolio of rewards and risks;
   iii) Create economic value without compromising SMUD’s financial health;
   iv) Do not pose unreasonable risk to SMUD’s reputation;
   v) Align with, leverage, and optimize SMUD’s strengths, assets and expertise;
   vi) Position SMUD for the future.

2) **Executive Summary**

a) Staff is tracking and reporting on three separate revenue portfolios. These revenue programs are deriving revenues that are not traditional electricity sales to customers. The three portfolios are a diverse mix of projects that leverage SMUD’s brand, intellectual property (IP) and assets to create new revenues for SMUD.

b) **SMUD is in compliance with SD-19, Diversified Business**.

c) There are three portfolios that generate revenue for SMUD. Prior to development of SD-19, tracking costs and revenues separately for each revenue program was aligned with operational efforts, and not specifically configured in a manner to
measure net revenue per project. Therefore, only revenues are reported for Legacy Revenue and Innovation Generator Programs. However, for the New Revenue Program portfolio, both costs and revenues are reported.

The founding objective of the Legacy Revenue Programs was to improve customer satisfaction by offering products and services requested by customers. Revenue generation was secondary. A requirement was that such programs must be self-sustaining after 5 years. Because many of the operational costs are shared across many programs, it is difficult to calculate net revenues even though revenues are tracked separately.

For fiscal year 2021, the actual costs and revenues for each portfolio are as follows:

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>Total Expenses</th>
<th>Total Revenues</th>
<th>Total Net Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Revenue Program</td>
<td>$(7,441,337)</td>
<td>$10,902,597</td>
<td>$3,461,261</td>
</tr>
<tr>
<td>Legacy Revenue Programs</td>
<td></td>
<td>$3,748,833</td>
<td></td>
</tr>
<tr>
<td>Innovation Generator Program</td>
<td></td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$14,651,430</td>
<td></td>
</tr>
</tbody>
</table>

3) Additional Supporting Information
   a) Financial Summary
   A total of 13 programs/projects are included in the three portfolios. Descriptions of each deal within each portfolio are listed in Appendix A.

   For the Legacy Revenue Programs, actual revenues of $3,748,833 were $874,874 above planned revenues of $2,873,959. Within the Legacy Revenue Programs, Cell Site Revenue and Home Power contributed most of the revenue out of the portfolio. The Innovation Generator Program actual revenues were negligible; again, there is no plan tracked for this program.

   There have been no new deals added to the New Revenue Program in 2021. The New Revenue Program generated $10,902,597 in revenue which was $837,972 above the planned revenue of $10,064,625. The actual expenses of $7,441,337 were $1,090,722 lower than the planned expenses of $8,532,059. This resulted in positive net revenue of $3,461,261 compared to a planned positive net revenue of $1,532,566 – a variance of $1,928,694. The biggest driver of this improvement over plan is due to the Community Energy Services
Program performing 80% better on a net basis than planned. The program performed better on both on reducing costs more than planned while increasing revenue more than planned.

The New Business Development Program is centrally responsible for developing, assessing, negotiating, overseeing implementation and tracking performance of existing and new business opportunities for all of SMUD. However, for all of 2021, this team was dedicated full time to launching the California Mobility Center. This team did not actively track the current portfolios or pursue any new opportunities for SMUD.

b) Risk Summary
Risk is reported here only for the New Revenue Program and the methodology is derived from SMUD’s Enterprise Risk business practices. Risk is generally defined as the ability to successfully recoup SMUD’s investment over a reasonable timeframe, without damaging SMUD’s reputation, causing financial hardship, or resulting in regulatory or policy violations.

Risk is evaluated on five impact areas - Financial; Legal, Regulatory and Legislative; Operational; Strategic; and Reputational. See Appendix B for definitions.

The overall risk ratings of the New Revenue Program portfolio were not modified from the 2020 assessment as no new opportunities were added. The previous overall portfolio risk was rated low. For 2021, the portfolio risk was not reevaluated or changed as it is still deemed low.

c) Compliance with Desired SD-19 Outcomes
Two of the three portfolios are meeting the desired results stated in the policy as follows:

New Revenue – The New Revenue Program is generating positive net revenue for the second year in a row.

Spurs Innovative Product and Services – The New Revenue Program is delivering innovative products and services to existing SMUD customers and new customers.
Capture Value From Brand and IP – Intrinsically, brand and IP value are considered and included in the associated revenue models for many of the projects included in the portfolios.

Asset Leverage and Optimization – Transmission Sales is a prime example of how SMUD is extracting additional value from an existing asset by selling surplus transmission capacity more competitively. For 2021, SMUD generated over 60% more revenue in excess transmission sales than was planned.

4) Challenges
Regimented cost and revenue tracking will be paramount to assessment of performance under SD-19. Staff is working diligently to maximize the revenue generation that is possible from all three portfolios.

As SMUD embarks on attaining new goals relative to zero carbon emissions, a robust innovation pipeline, greater reliance on strategic partnerships and business diversification will all play vital roles. New revenue generation opportunities aligned to SMUD’s 2030 zero carbon goals will be a priority. As an example, the California Mobility Center will continue to play a critical role in helping to identify new zero emission mobility solutions aligned to SMUD’s goals. Additionally, SMUD’s participation in the Global Mobility Strategic Fund – a venture fund established to support early-stage mobility companies – will create new opportunities for revenue generation from this sector.

As part of this evolution as it relates to new revenue opportunities, SMUD needs to learn how to be comfortable with trying new business models for revenue generation, fail quickly and move on to other ideas. The innovation process must be quicker.

5) Recommendation
It is recommended that the Board accept the Fiscal Year 2021 Monitoring Report for SD-19, Diversified Business.
New Revenue Program:

1. **Community Choice Aggregator Services**: SMUD provides back office support services such as data management, call center, whole energy, marketing, communications and customer care for Community Choice Aggregators.

2. **NEC/STI**: Partnership with NEC Corporation (NEC) to collaborate on energy solutions for Japanese electric power providers and others in the Asia Pacific region.

3. **Sacramento Power Academy (SPA)**: Program to train future utility workers in hundreds of utilities throughout the Western United States.

4. **Smart Grid Billing**: Smart Grid Billing enables real-time device monitoring and control to lower energy consumption and provide predictive maintenance for equipment. Our current pilot is with Embassy Suite and Hyatt Regency in Sacramento. This pilot offers an installation of a storage battery in the Hyatt in midtown that will be connected with the energy management system (EMS).

5. **OSI/DERMS Co-Development**: Open System International, Inc. (OSI) and SMUD strategic technology partnership to implement and deploy an industry-leading Distributed Energy Resource Management System (DERMS). SMUD will receive royalties from future sales of the enhanced product suite for DERMs.

6. **GridX**: Program will generate pro forma bills for all SMUD residential customers under various tariffs as part of RTOU planning efforts.

Legacy Revenue Programs:

1. **Cell Site Construction**: Revenues derived from SMUD review of cell site modifications or new construction.

2. **Energy Profiler**: Energy Profiler Online (EPO) lets customers to see their load profiles, energy consumption by time period, and other information on their facilities from any computer with Internet access.

3. **Home Power**: Program that covers customer’s homes against unforeseen electrical repairs to outlets, switches, circuit breakers, fuses and accessible internal wiring. All repairs are performed by a SMUD approved electrical contractor.

4. **Moving Connections**: Program designed to enhance a customer’s overall move experience. Residential customers can sign up for phone, internet, and other services, after transferring or starting electric service with a SMUD Customer Service Representative (CSR).

5. **Power Protection**: Residential program that prevents harmful voltage surges from entering a home via a whole house surge suppressor attached to the meter.
Appendix A
The program includes a manufacturer’s warranty covering surge damage to appliances and electronic equipment.

Innovation Generator Projects

1. **DER Planning Software:** DER Planning Tool software will forecast adoption scenarios (rate of adoption and geographic location) of DERs like electric vehicles, solar PV, storage, etc.

2. **Intelligent Energy Solutions:** Software that minimizes certain electrical end uses in the customer’s home (e.g. pool pumps).
Risk is tracked only for the New Revenue Program using best practices derived from SMUD’s Enterprise Risk business practices. Risk is generally defined as the ability to successfully recoup SMUD’s investment over a reasonable timeframe, without damaging SMUD’s reputation, causing financial hardship, or resulting in regulatory or policy violations.

A risk is the possibility that an event will occur and adversely affect the achievement of objectives. To help understand the nature of risk and to determine the level of risk, the risk assessment process is used. Risk Assessment requires calculations of three components of risk: impact, likelihood and velocity.

**Impact** is the magnitude of the potential risk based on six impact areas defined below. **Likelihood** is the chance that the event (risk) will occur and velocity is the speed at which the risk will occur, if it occurs. For the purposes of this rubric, the risk score is calculated as follow: \( \text{Impact} \times \left[ \frac{\text{Likelihood} + \text{Velocity}}{2} \right] \)

The following five impact areas are considered for the New Revenue Program Portfolio.

**Financial** – This category focuses on how much SMUD’s financial commitment is including both cash and non-cash resources. Labor is considered here as well.

**Legal, Regulatory and Legislative** – This category considers whether the project has the potential to violate the law, cause significant fines, or a loss of confidential data. It considers whether the project exposes SMUD to higher levels of risks or new risks from a legal, regulatory or legislative perspective.

**Operational** – This category considers whether the project aligns with, leverages and/or optimizes SMUD’s strengths, assets and expertise. It also considers whether the project poses unreasonable risks to existing projects or operations.

**Strategic** – This category considers whether the project or the failure of the project will impact SMUD’s ability to achieve its strategy. It also considers whether the project poses unreasonable risk to SMUD’s goals and objectives.

**Reputational** – This category considers how the project could impact the perception of SMUD by its customers and the community. It considers whether the project poses unreasonable risk to SMUD’s reputation.

The following tables define the rubric for ratings of risk impacts.
## Appendix B

### Impact Areas

<table>
<thead>
<tr>
<th>Score</th>
<th>Name</th>
<th>Financial</th>
<th>Legal, Regulatory &amp; Compliance</th>
<th>Operational</th>
<th>Strategic</th>
<th>Reputational (Customer, Community, and Board Relations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Insignificant</td>
<td>&lt;$2M, no FTE</td>
<td>No legal/compliance violations. No confidential data involved.</td>
<td>Direct alignment with SMUD’s strengths, assets, and expertise. No impact to existing projects or operations.</td>
<td>No impact to achievement of goals and objectives.</td>
<td>No impact to metrics and surveys. No public criticism on media platform. No impact to SMUD’s reputation.</td>
</tr>
<tr>
<td>2</td>
<td>Minor</td>
<td>$2M&lt;$5M, 1 FTE</td>
<td>Minor legal/compliance violations. (regulatory fines &gt;$5K and torts)</td>
<td>Project may be a minor deviation from SMUD’s strengths, assets, and expertise. Minor delays or modifications to a few existing projects or operations.</td>
<td>Minor delays or modifications to goals and objectives.</td>
<td>Slight change in customer metrics and surveys. Limited public criticism from a few media platforms.</td>
</tr>
<tr>
<td>3</td>
<td>Moderate</td>
<td>$5M&lt;$10M, 2 FTEs</td>
<td>Moderate violations lead to increased scrutiny and some fines. (regulatory fines &gt;$100K) Introduces new risks to SMUD that can be mitigated with effort, confidential data involved.</td>
<td>The project may align with, leverage and optimize only a portion of SMUD’s strengths, assets and expertise. Moderate delays or modifications to project portfolio or operations.</td>
<td>Moderate delays or modifications to goals and objectives.</td>
<td>Modest decline in customer metrics and surveys. SMUD is subject to criticism from several opinion leaders/customers, media sources and the Board.</td>
</tr>
<tr>
<td>4</td>
<td>Major</td>
<td>$10&lt;$20M, 3-4 FTEs or team to support</td>
<td>Significant violations of law or potential loss of confidential data. Significant fines (regulatory fines &gt;$250K) Introduces new risks to SMUD that are difficult or costly to mitigate.</td>
<td>The project may be a major deviation from SMUD’s strengths, assets, and expertise. Significant delays or modifications to existing project portfolio or operations.</td>
<td>Significant delays or reductions in scope of goals and objectives.</td>
<td>Significant deterioration in customer metrics and surveys. Negative media reaches headlines of several publications. Significant erosion of trust from the Board.</td>
</tr>
<tr>
<td>5</td>
<td>Critical</td>
<td>&gt;$20M, &gt;4 FTEs or an entire team or department to support</td>
<td>Violations result in widespread data loss, loss of qualifications for licenses. (regulatory fines &gt;$1M) Introduces new risks to SMUD that are too difficult or costly to mitigate.</td>
<td>New line of business with significant disruptions to SMUD’s strengths, assets and expertise. Cancellation of multiple projects and significant impacts of operations.</td>
<td>Failure to meet SMUD’s goals and objectives.</td>
<td>Major deterioration in customer metrics and surveys. Irreparable negative media coverage and damage to SMUD’s reputation and credibility with the media and the Board.</td>
</tr>
</tbody>
</table>
RESOLUTION NO. ______________

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

This Board accepts the monitoring report for Strategic Direction SD-19,

Diversified Business, substantially in the form set forth in Attachment ____ hereto

and made a part hereof.
TO

1. Markisha Webster
2. Claire Rogers
3. Jennifer Davidson
4. Brandy Bolden
5. Farres Everly

TO

6. Lora Anguay
7. Scott Martin
8. Legal
9. CEO & General Manager

Consent Calendar | x | Yes | No If no, schedule a dry run presentation. | Budgeted | x | Yes | No (If no, explain in Cost/Budgeted section.)
FROM (IPR) | DEPARTMENT | MAIL STOP | EXT. | DATE SENT
Jose Bodipo-Memba | Sustainable Communities | A354 | 6493 | 9/23/2022

NARRATIVE:

Requested Action: Accept the monitoring report for Strategic Direction SD-13, Economic Development Policy.


Board Policy: Strategic Direction SD-13, Economic Development Policy states: “Promoting the economic vitality of our region and the growth of our customer base is a key value of SMUD. Therefore, SMUD shall exercise strategic leadership and actively participate in regional economic development.”

Benefits: Provides information on SMUD’s overall compliance with Economic Development to the Board of Directors and Executive Team so they can evaluate compliance with specific Board Policy. Also, provides an opportunity to make recommendations or policy revisions, as necessary.

Cost/Budgeted: N/A

Alternatives: Provide the Board with written reports and communication through the CEO & General Manager.

Affected Parties: Board of Directors, Executive Team & staff.

Coordination: Economic Development develops the report with information from SEED, Sustainable Communities, New Business Development, Commercial Development, Pricing and Commercial Delivery.

Presenter: Jose Bodipo-Memba, Director, Sustainable Communities

Additional Links:

SUBJECT

Annual Monitoring Report for SD-13, Economic Development Policy

ITEM NO. (FOR LEGAL USE ONLY) 9

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
TO: Board of Directors
FROM: Claire Rogers CR100522
SUBJECT: Audit Report No. 28007427
Board Monitoring Report; SD-13: Economic Development Policy

Audit and Quality Services (AQS) received the SD-13 Economic Development Policy 2021 Annual Board Monitoring Report and performed the following:

- A review of the information presented in the report to determine the possible existence of material misstatements;
- Interviews with report contributors and verification of the methodology used to prepare the monitoring report; and
- Validation of the reasonableness of a selection of the report’s statements and assertions.

During the review, nothing came to AQS’ attention that would suggest the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:
Paul Lau
1. Purpose & Background

Strategic Direction 13 (SD-13) Economic Development states that:

“Promoting the economic vitality of our region and the growth of our customer base is a key value of SMUD. Therefore, SMUD shall exercise strategic leadership and actively participate in regional economic development.

Specifically:
  a) SMUD shall promote innovation while maintaining rate affordability and balancing the other strategic directions.
  b) SMUD shall align its economic development activities with regional economic development initiatives.
  c) SMUD shall assist in retaining, recruiting and growing commercial and industrial rate-paying customers.
  d) SMUD shall offer economic development rates and program incentives.
  e) SMUD shall offer a contracting program for certified small businesses who are rate-paying customers.

2. Executive summary

SMUD is in compliance with SD-13, Economic Development.

SMUD continues to be a nationally recognized leader in corporate citizenship for our long-standing commitment to the economic health of the greater Sacramento region. In 2021, we continued our support for and engagement with the struggling business community to help meet their needs during the COVID-19 pandemic by pivoting and adapting our support to meet their evolving needs. We leveraged key partnerships to support a shared vision of economic recovery, while delivering greater collective impact and advance an inclusive and equitable economy. Additionally, we aligned our economic development efforts with SMUD’s vision to be a trusted and impactful partner in achieving an inclusive, zero carbon economy. We leveraged our 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.

Our strategy to enhance the economic vitality of the Sacramento region is comprehensive. Key tactics to engage, inform and support the regional business community include:

- Advancing SMUD’s 2030 Zero Carbon Goal in inclusive, regional economic development efforts
- Broadening support of the region’s emerging innovation ecosystem, including the California Mobility Center
- Supporting business formation, attraction, retention, and expansion efforts
- Providing business development resources for entrepreneurs
- Improving the Supplier Education and Economic Development (SEED) contracting program for local small businesses
- Continuing to offer and enhance economic development rates
- Providing energy efficiency programs and electrification incentives and rebates
- Expanding local agency and nonprofit partnerships to support community development
- Deploying significant resources to support a Sustainable Communities plan that can be replicated and measured for effectiveness and impact
- Ensuring our commercial and industrial service connection costs are in-line with other West Coast electric utilities
- Supporting the developer community

Through outreach and education, SMUD’s Supplier Education and Economic Development (SEED) team teaches local small businesses how to contract with SMUD and positively impact their bottom line. SEED offers incentives to local small businesses that participate in SMUD’s competitive bid process. It also helps prime contractors find local sub-contractors, which helps them gain a competitive edge when developing their bids or proposals. In 2021, the SEED program partnered with Supply Chain Services, conducting a variety of outreach and education events and awarding 23% of SMUD’s contracts to SEED-certified small businesses, exceeding the Board-established goal of 20%. Over 115 SEED contracts were awarded in 2021, totaling $48 million dollars.

SMUD works with over 50 local economic development organizations to enhance regional economic vitality. Our leadership roles in the Greater Sacramento Economic Council (GSEC), Valley Vision, Sacramento Metro Chamber, Urban Land Institute, Downtown Sacramento Partnership, Sacramento Black Chamber, Sacramento Hispanic Chamber, Sacramento Asian Pacific Chamber, SACOG, SacPAC and many others help ensure our activities support the region’s efforts to attract, retain and expand companies in our service area. It also means SMUD has a seat at the table early on in economic development conversations. Other major tactics to encourage regional economic development include our dedicated Commercial Development and Commercial Delivery teams.

Business attraction was a key economic development focus in 2021. We participated in 57 business attraction, retention and expansion projects, supporting the attraction or expansion of seven companies and the creation of an estimated 442 jobs within our service area in multiple sectors including mobility, manufacturing, technology expansion and finance and banking.

3. Information about our 2020 efforts to achieve the specific elements outlined in SD-13 is provided in the following section.

a) SMUD shall promote innovation while maintaining rate affordability and balancing the other strategic directions.

As SMUD adopted our bold 2030 Clean Energy Vision to reach zero carbon, we heightened our focus on opportunities to promote awareness, innovation, and job creation with local startups in electrification, transportation, and clean technology. We continued to collaborate and amplify the California Mobility Center (CMC), engage the clean tech community through CleanStart, and inspire the future workforce through partners like HackerLab and StartupSac. All of these efforts are increasing investments to develop new solutions for clean energy, workforce development, and a thriving inclusive economy.

The New Business Development (NBD) Team planned, incorporated and launched a new nonprofit corporation, the CMC in 2020. The CMC applied for and received IRS tax exempt 501(c)(3) status in 2020. After securing a lease for its initial 25,000 square foot manufacturing and prototyping facility at Depot Park, CMC procured its initial baseline
equipment and was commissioned in Q1 2021. The facility, called Ramp-Up-Factory (RUF) is operational with training suite installed. 15 service provider contracts were executed with additional consultants and strategic partners that continue to support the CMC and CMC clients.

In 2021, CMC expanded the Board from a Founders group of five to a broad-based Board of 16, with strong automotive sector representation. CMC developed its online, recruitment management tool to expand its membership campaign. By year-end, CMC reached a total of 39 members, with 98 representatives registered in the online portal. Additionally, CMC launched various membership committees, launched the Industry Advisory Council and monthly CMC Thought Leadership webinar series.

CMC designed and developed materials for the organization’s marketing and public relations initiatives. CMC continually updated its rebranded website (www.californiamobilitycenter.org), and wrote/distributed eight press releases in 2021 reaching over 15,000 media industry views. CMC appeared in over 213 industry and news articles and sponsored twelve industry events held in the US and internationally.

Lastly, the CMC workforce program has provided training in partnership with community-based organizations, adult learning centers and CSU Sacramento. The Workforce Pathways Partnerships Program started in 2020 with a $1.4 million CARES Act grant from the City of Sacramento. In 2021, CMC received a $600,000 grant from California Workforce Development Board to advance jobs and training associated with the climate and technology impacted industries. CMC was able to assist 115 people in securing internships or employment through the Workforce Pathways Partnerships Program.

SMUD continues to effectively balance our goal of fostering innovation with our commitment to keeping rates low. SMUD’s average rates will remain competitive even after the adopted rate increases for 2022 and 2023. In 2021, SMUD’s system average rate was 37.0% below PG&E. PG&E’s 2020 General Rate Case Phase I that was approved by the CPUC included revenue requirement increases for calendar year 2020 through 2022. A detailed summary of SMUD’s rate competitiveness is provided in Appendix A.

**b) SMUD shall align its economic development activities with regional economic development initiatives**

Supporting the local economy through the ongoing COVID-19 pandemic was a regional priority in 2021. SMUD engaged at the highest levels in regional economic recovery initiatives and took direct action to reach our commercial customers. SMUD partnered with the Sacramento Metro Chamber to underwrite its COVID-19 Business and Economic Task Force briefings, convening more than 50 local representatives across all levels of government, industry and community leadership. SMUD leveraged the opportunity to share information about our programs and services to support impacted businesses and gather information to share directly with our customers. Through our active engagement in the State Sprint effort, we were able to position the CMC as a key priority for investment and showcase SMUD’s Sustainable Communities Resource Priorities Map. This effort was organized by the Sacramento Asian Pacific Chamber in partnership with GSEC, SACOG, Valley Vision, the Sacramento Metro Chamber and City of Sacramento. SMUD participated in the Sacramento Metro Chamber’s virtual Cap-to-Cap program to advocate for federal resources to aid the business community’s recovery. SMUD stepped up as a lead supporter of the Minority Business Assistance and Recovery Kickstart (MBARK) program, a comprehensive, multi-pronged approach geared to assist minority small business owners in the community. MBARK utilizes understanding and expertise on what minority small
business owners may need and showcases how to proactively engage them in order to stabilize and grow their businesses. SMUD also joined forces with Sacramento State, Los Rios Community College District, UC Davis, UC Davis Health System and Aggie Square to form an Anchor Institution Coalition to explore workforce and economic development pathways to support the greater Sacramento Region. The economic, intellectual, and human capital places an anchor institution in a unique position to improve and enrich the surrounding community in partnership with other key place-based stakeholders from sectors such as government, business, and faith, as well as community-based organizations and local residents. We provided resources to implement the Capital Region Prosperity Strategy and served on the Steering Committee for the Internal Study Mission. Also, we remained in constant contact with all our business community partners to lend support.

In 2021 SMUD’s Small and Midsize Team of Strategic Account Advisors continued to offer assistance to customers, directing them to appropriate SMUD programs and providing financial relief related information. The “Here to Help” campaign continued into 2021; this overarching awareness campaign focused on delivering information and resources to our business customers. SMUD continued to maximize the use of targeted digital tools supporting small and midsize business customers. As the COVID-19 global pandemic persisted, small and midsized businesses continued to struggle through financial challenges, supply chain issues and employee retention dilemmas. For a detailed description of the efforts of SMUD’s Small & Midsize Business Team of Strategic Account Advisors, and of SMUD’s “Here to Help” campaign, see Appendix B.

SMUD plays a critical role in GSEC. In addition to Paul’s participation on the GSEC Board, the business attraction team serves on the Economic Development Directors’ Task Force. Given the focus on climate change and carbon neutrality, SMUD has played an increasingly important role in business attraction, retention, and expansion.

During the past year, SMUD provided support in the attraction of seven new companies that will create 442 jobs in SMUD’s service territory. Detailed information about SMUD’s role in key regional economic development organizations is provided in Appendix C.

To promote workforce and equitable economic and community development, SMUD continues targeting economic development, community/environmental health, and neighborhood outreach activities in vulnerable and under-resourced communities through its Sustainable Communities program. SMUD has invested over $11.46 million into this effort, leveraging partnerships to increase impact in these areas of need. Additional information regarding Sustainable Communities can be found in Appendix B.

c) SMUD shall assist in retaining, recruiting and growing commercial and industrial rate-paying customers

The Commercial Development team actively engaged 225 commercial, industrial, mixed-use and residential project developers throughout our service territory. We partner with community organizations and municipalities to attract, retain, and grow existing companies.

To support the creation and growth of small businesses, SMUD supported the Capital Region Small Business Development Center (SBDC), which helped 24 businesses start up, retained 8,056 jobs, created 575 new jobs and helped businesses access $38.7 million in capital during 2021.

d) SMUD shall offer economic development rates and program incentives
In 2020, SMUD offered an Economic Development Rate (EDR) to incentivize the attraction, retention, and expansion of businesses within our service area. A description of the current EDR can be found in Appendix D.

SMUD conducted strategic outreach and engagement to developers and builders of residential subdivisions and multifamily developments about its Smart Homes program offerings and incentives for All-Electric Smart Homes, SolarShares, and battery storage.

e) SMUD shall offer a contracting program for certified small businesses who are rate-paying customers

Our SEED program offered certified small businesses incentives to participate in SMUD’s competitive bid process. It also helped prime contractors find local subcontractors to gain an advantage in developing their bids or proposals. To this end, the team provided 131 lists of SEED qualified vendors in specific categories to contractors interested in leveraging the SEED program in their bid responses.

The SEED team held 27 workshops, orientations or panel discussions and coordinated participation in over 100 outreach events, reaching approximately 3,000 individuals. In addition, the team hosted the first Spanish-language “How to do Business with SMUD” workshop for the Sacramento Hispanic Chamber’s Emprende cohort.

SMUD’s annual goal is to award no less than 20% of all contracts to certified small businesses. We exceeded that goal in 2021, awarding 23% of contracts to SEED qualified vendors, totaling $48 million.

The SEED team also coordinated the Business Advisory Council (BAC). The BAC raises local business awareness about contracting with SMUD and makes recommendations for improvements to our contracting process. SMUD hosts quarterly meetings for over 40 member agencies, including regional Chambers of Commerce and Property and Business Improvement Districts.

For more information about our 2021 efforts to promote our SEED program, and the achievement of our SEED goals, please see Appendix E.

4. Challenges: California’s regulatory climate, the costs of doing business, new code and regulatory standards present steep challenges to development. Permitting costs and delays pose barriers to market, leading companies to relocate to other states. Limited availability of a trained workforce present challenges. SMUD continues to work with regional and state partners, such as GSEC, GO-Biz and the California Association of Local Economic Development, to address the state and local regulatory challenges that limit our ability to attract or develop new businesses.

Supply chain disruptions and inflation resulting from the COVID-19 pandemic also continue to pose significant economic challenges for the Sacramento region and the full effect is yet to be realized. The percentage of employees that will remain working from home will impact the demand for office space and traditional business attraction efforts. We may also need to reevaluate the way we support the existing business community as it recovers from the pandemic.

5. Recommendation: It is recommended that the Board accept the Monitoring Report for SD-13, Economic Development.
SMUD shall promote innovation while maintaining rate affordability and balancing the other strategic directions.
SMUD’s approach to innovation includes investments in regional accelerators, incubators, and curriculum delivery that complements business development efforts.

For corporations and startups alike, achieving success and growth depends on a support network and ecosystem in which to collaborate. SMUD’s approach is to continue to identify the problem solvers within our community, and strategically invest in their programs that will grow our region’s knowledge economy. Key 2021 developments in the mutually beneficial relationships Economic Development and Partnerships supports in the innovative entrepreneurship ecosystem include:

CleanStart Inc. focuses on developing clean tech companies in the Sacramento region through education, capital, and connections. Having successfully pivoted much of their programming to virtual the year prior, CleanStart continued to offer monthly meetups as well as a Perspectives webinar series, hosting 35 real-time events reaching over 1,000 attendees on topics such as decarbonization, energy storage, recycling, clean tech investment, and mobility. Additionally, CleanStart leveraged their events to create a recorded video library of resources, reaching over 4,500 views to date, and mentoring six companies for 2021 CalSEED awards.

Hacker Lab is an all-in-one makerspace, coworking facility and workforce incubator as one of the most recognized centers for innovation in the region. SMUD continues to invest in their programs end-to-end, including their maker education programs, entrepreneurship business accelerator, and their career pathway development program, to support the dreams of underserved Sacramentans. In partnership with SMUD, Hacker Lab’s team and workforce equity programs boosted Sacramento-area entrepreneurs and small businesses during the pandemic, helped generate dozens of new jobs and businesses, and supported skill-building and economic development in Sacramento’s manufacturing and creative economy.

In 2021, Sacramento-area workforce trainees and entrepreneurs checked in 10,057 times to use Hacker Lab space, tools & equipment as a critical resource amid COVID-19 challenges. This included 989 classes, events & meetups where attendees gained workforce-focused skills in fields such as advanced manufacturing, CNC design, woodshop, welding, 3D printing, and more. The Hacker Lab Pathways scholarship provided curriculum to 473 attendees, 55 percent of which explored a new field and 22.5 percent of which started new businesses. The MAKEHERS women business accelerator graduated 30 Sacramento-based women and non-binary business owners across two cohorts with targeted programming for participants from low-income backgrounds and funded $30,000 in seed investments. Finally, the Maker-to-Market program served entrepreneur training to 555 attendants and helped over 36 small businesses launch, creating economic resiliency amidst COVID-19.

InnoGrove continued to offer virtual networking and educational workshops focused on startup and small business development, hosting 10 events and reaching 240 attendees. This included Women-in-Tech Workshops to support the growth of women in technology careers and businesses as well as Startup Founder Workshops. InnoGrove also laid the foundation for the InnoGrove Startup Resource Directory (IRSD), which will be comprised of professionals in a range of industries who have agreed to assist small and startup companies affiliated with InnoGrove with their business-related questions.

StartupSac accelerates Sacramento’s startup and innovation ecosystem through educating, empowering and connecting startups to founders and innovators, and continued to connect and engage in 2021 despite the continued impacts of the pandemic. This included two Mentor
Sacramento Office Hours Sprints, a program offered in collaboration with the Carlsen Center which matched over 75 early-stage entrepreneurs with expert mentors, investors, advisors, subject matter experts, and experienced entrepreneurs in three, 15-minute sprint sessions each. StartupSac also launched Scale-Up! Workshops, educating 25 entrepreneurs about essential deal terms of equity investments, as well as an Angel Investing series to show how activating more angel investors in our region can benefit local startups and the Greater Sacramento economy. Startup Sac held a total of 24 events, supporting 789 businesses, including nine StartupSac Happy Hour Events featuring 17 veteran founders and 317 attendees, and holding 10 Startup Sac Office Hours with a total of 281 attendees.

SMUD sponsored the Entrepreneurs Showcase’s Impact’21 Global Venture Summit, a day-long exhibition focused on innovation and investment in leading technologies, including artificial intelligence, cyber security, autonomous vehicles and more. More than 20 exhibitors provided previews and demonstrations of innovative solutions. As part of the Summit program, SMUD’s Chief Zero Carbon Officer, Lora Anguay, spoke on a zero-carbon themed panel.

SMUD initiated a new partnership with Growth Factory, a nonprofit pre-seed accelerator and accompanying venture fund on a mission to scale truly great companies in the Greater Sacramento region. Growth Factory will foster 25 startup companies per year, providing mentorship and guidance to each along the pathway from founder to CEO. SMUD will supply thought leadership throughout the programming, particularly in areas of clean tech and operational excellence.

SMUD also sponsored FourthWave, a local accelerator program for women-led technology, which works in collaboration with the CSUS Carlsen Center for Innovation & Entrepreneurship.

**Commitment to Low Rates:** SMUD continues to maintain rates that are below PG&E’s, both at a system level and by rate class.

**Figure 1:** Compares SMUD and PG&E system average rates for the past two years. On a system average basis, SMUD’s system average rates have averaged 31.3% below PG&E’s since 2012.

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<tr>
<th>Customer Rate Categories</th>
<th>Average Annual Rate</th>
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<th>Difference Below PG&amp;E*</th>
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<td><strong>Description</strong></td>
<td><strong>PG&amp;E</strong></td>
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Notes:
** CARE vs EAPR includes EAPR & EAPRMED customers.
*** There is no indication from PG&E that their CARE rates include customers who have a medical allowance only.
**** Commercial rates include WAPA credits.
Figure 1 shows that rate competitiveness varies by customer class and is at least 31.5% below comparable PG&E class average rates. Since the creation of the annual rate monitoring report in 2007, SMUD has consistently maintained rates that were more than 18% below PG&E.

APPENDIX B

**SMUD shall align its economic development activities with regional economic development initiatives.**

**Leadership Roles:** Throughout 2021, SMUD staff held visible leadership roles in regional economic development initiatives and organizations, helping ensure regional stakeholders are working in concert on business development, attraction, retention and expansion efforts and that our efforts are aligned with regional priorities. SMUD’s leadership roles in regional economic development organizations included:

- Business Council for Sustainable Energy, Board of Directors
- Business Environmental Resource Center, Advisory Committee
- Carmichael Chamber of Commerce, Board President
- California Electric Transportation Coalition, Board of Directors
- California Mobility Center, Board of Directors
- California Workforce Development Board, Board of Directors
- Capital Region Small Business Development Center, Advisory Board
- Cleaner Air Partnership, Executive Committee
- Downtown Sacramento Partnership, Board of Directors
- Electric Transportation Community Development Corporation, Board of Directors
- Folsom Tourism and Economic Development Corporation, Board of Directors
- Greater Sacramento Economic Council, Board of Directors
- Greater Sacramento Economic Council, Economic Development Directors Taskforce
- Greater Sacramento Urban League, Board of Directors
- Hacker Lab, Board of Directors
- Internal Study Mission, Steering Committee
- Metro EDGE, Leadership Council
- Midtown Business Association, Board of Directors
- National Association of Workforce Boards, Board of Directors
- National Association of Women Business Owners, Board of Directors
- North State Building Industry Association, Board of Directors
- North Sacramento Chamber of Commerce, Board of Directors
- Power Inn Alliance, Board President
- Project Attain, Board of Directors
- R Street Sacramento Partnership, Board of Directors
- Sacramento Asian Pacific Chamber of Commerce, Board of Directors
- Sacramento Black Chamber of Commerce, Board of Directors
- Sacramento Employment and Training Agency (SETA)/Sac Works, Board of Directors
- Sacramento Employment and Training Agency, Board of Directors
- Sacramento Hispanic Chamber of Commerce, Board of Directors
- Sacramento Metro Chamber of Commerce, Executive Committee
- Sacramento Metro Chamber, Economic Development Policy Committee Co-Chair
- State Sprint, Steering Committee
- The River District, Board of Directors
• Urban Land Institute, Board President
• Valley Vision, Executive Committee

**Sustainable Communities Program:** Our Sustainable Communities program helps bring environmental equity and economic vitality to all communities in our service area, with special attention given to historically under-resourced neighborhoods. We believe in the ability to make a greater collective community impact through partnerships, and collaborate with private industry, government agencies and nonprofits to invest in and implement programs that provide equitable access to indicators of sustainable community success, with a focus on social wellbeing, healthy environment, prosperous economy, and mobility.

An important corollary to Sustainable Communities is our Board-adopted Climate Emergency Resolution requiring SMUD to work toward our most ambitious goal — 2030 Zero Carbon. Under-resourced communities lack equitable access to many essential community components that we attribute with a high quality of life, including living wages and training opportunities, affordable housing, access to transportation and connectivity, health care access, nutrition, education opportunities, computer and internet access and a healthy environment. Our neighbors in these communities feel the physical impacts of climate change more acutely than wealthier communities while bearing little responsibility for the crisis, and history has shown that these communities often suffer unintended consequences when new social policies or strategies are introduced.

Involvement of all our communities is foundational to our 2030 Zero Carbon plan. SMUD recognizes the importance of partnering with all the communities we serve. We commit to reaching impacted communities as we work toward our goal of zero carbon.

Our Sustainable Communities program strategically establishes long-term partnerships with community-based organizations and businesses, working together on projects to help our under-resourced communities, increase inclusion and close the disparity gap in the region. These partnerships create trusted relationships and serve as a foundation for the community outreach, engagement, collaboration, and education needed to build livable, diverse, and resilient communities. We partner with policy makers, transit, technology companies, health care providers and community-based organizations, leverage our investments, and create collective impact to enhance workforce training, transportation access, clean energy, job creation and inclusive economic development in under-resourced neighborhoods.

**SMUD’s Sustainable Communities Priority Map:** Our Sustainable Communities Resource Priorities Map helps analyze current data to indicate the local areas most likely to be underserved or in distress by lack of community development, income, housing, employment opportunities, transportation, medical treatment, nutrition, education, and clean environment. The data sets highlighted in the Resource Priorities Map include key indicators that would best aid in identifying and targeting communities with a greater sensitivity to social, economic, and environmental vulnerabilities.

In 2021, SMUD increased its commitment to regional workforce development by expanding our partnership portfolio to provide education, build pathways, and facilitate cultural onboarding to enhance diverse employability in the Sacramento Region. Our Sustainable Communities team
has continued to strengthen our support of these partners by leveraging resources and opportunities that help increase awareness and access to livable wage jobs for under resourced communities. We linked California Mobility Center with several nonprofit partners, including Women’s Empowerment, Single Mom Strong, so they could increase awareness of advanced manufacturing careers to women who often don’t consider this career field. Additionally, we provided new and refurbished laptops for Butte County Office of Education (Sacramento location) and ACC Senior Center to support equitable access to training and job opportunities.

Building off the success of its inaugural “Energy Careers Pathways” solar training class, SMUD launched a new Energy Careers Pathways training in 2021 in partnership with Grid Alternatives. The workforce program recruits individuals from Sustainable Communities target neighborhoods and provides them four weeks of paid instruction; two weeks of online learning and two weeks of in-person instruction in a hands-on, safe format. Upon graduation, participants are matched with potential employers to demonstrate what they’ve learned by showcasing conduit bending, wired J-boxes, and more. Importantly, while the focus is on solar installation, students also learn about the installation and importance of battery storage and EV charging infrastructure. The new program closed the year with a total of 196 program applicants, 93 participants completing the initial 2-week online training, 52 participants completing the subsequent 2 week in-person training, and 28 job placements. The program continues in 2022 with a completely in-person format and a renewed focus on EV and electrification infrastructure installation.

Shine Program: In its fifth year, the Shine program invests in local nonprofit partners that execute inclusive and equitable projects through collaborations and partnerships supporting our historically under-resourced communities. In 2021, 94 organizations submitted applications with compelling and competitive projects. We received requests for over $3.2 million in funding for projects to improve access to workforce development trainings, STEM education, energy efficiency and revitalizing neighborhoods. Shine will fund 36 projects totaling $650,000. With a diverse and inclusive set of deliverables supporting our under resourced communities, the Shine partners impact include energy efficiency in buildings serving seniors, veterans and individuals with disabilities, improved walkability with ADA accessibility along Tillotson Parkway, workforce development skills training with cultural relevance for recent Afghan refugee community, youth development in civic leadership/career exploration and multiple Crime Prevention Through Environmental Design projects in partnership with our local Property Business Improvement Districts.

Our Community Resource Liaison (CRL) program is a loaned SMUD employee program that supports key chamber and nonprofit partners, as well as an employee training opportunity, for up to 12 months. CRLs are responsible for managing and implementing innovative strategies to support businesses, increase membership participation and foster community impact by creating opportunities that promote the partners’ operations as well as SMUD’s programs and services. Six community partners participated in the CRL program in 2021: the Sacramento Hispanic Chamber of Commerce, the Sacramento Black Chamber, the Sacramento Rainbow Chamber, the Rancho Cordova Chamber, the City of Refuge, and the Minority Business Assistance Recovery Kickstart Program (MBARK). SMUD’s investment through the CRL Program enhanced these organizations’ ability to implement new services, design and develop new programs, extend and increase current program offerings and enhance community engagement by expanding their reach. To date, five (5) of the 11 CRLs have been promoted within SMUD during or following their work in the CRL program. SMUD also provided direct staff technical, marketing, communications, and administrative support to the Carmichael Chamber and GSEC.

COVID-19 Small and Midsize Business Support: 2021 was the second year of the COVID-19 global pandemic. Our small and mid-size businesses continued to work through state-enforced
mandates, and continued to struggle to pivot their businesses. There were added challenges in 2021, including supply chain delays/shortages and employee retention challenges.

The SMUD Small and Mid-size Business (SMB) Team continued to keep customer safety at the forefront as they virtually assisted customers and provided the personalized level of service our customers expect from SMUD. In 2021, the SMB team of Strategic Account Advisors (SAA) continued to develop and promote on-line resources for customers. Building on the 2020 launch of “explainer video’s,” we released the “You have control with SMUD MyAccount” and “Commercial Rate Restructure - What you should know,” videos.

The SMB team worked closely with program managers at SMUD to “re-design” the Complete Energy Solutions program to be small business friendly. The re-designed program is more encompassing, with a financing option not previously available. Throughout 2021, SMB customers continued to take advantage of a variety of SMUD incentive programs, including Express Energy Solutions, Complete Energy Solutions and the Custom Incentive Program.

Our SMUD “Here to Help” campaign continued in 2021 delivering resources to help our business customers during the pandemic.

Key executions under the “Here to Help” campaign included:
- SMUD.org/BizResources – We continued to promote the BizResources landing page featuring local, state and national business resources
- “We are in this together” social media - promoting small and mid-size business SMUD “partnership” stories though social media outlets
- SMB Strategic Account Advisor awareness campaign - targeted digital, audio + streaming to alert small & midsize businesses they had a personal contact at SMUD to assist them
- Virtual Energy Assessment – SAA’s continued to offer online energy assessments, prioritizing safety of customers
- Meet the Buyers & Business Resource Expo – SMUD virtual expo had a successful second year with opening sessions that included greetings from SMUD Directors and Board members. The Business Resource Expo continued to promote doing business with SMUD but also educated our customers on new technologies and programs offered by SMUD
- You Have Control with SMUD MyAccount video – alerting customers to the many features within SMUD MyAccount that can help customers understand and control their energy usage
- Commercial Rate Restructure: What You Should Know video – preparing customers for the upcoming Q4 rate restructure transition; why it was occurring and what customers could expect

The “Here to Help” Campaign addressed the following:
- Proactively informing our business community about COVID-19 resources and related information
- Raising customer awareness that their Strategic Account Advisor (i.e., primary account manager), is available to support and assist
- Development of new business customer digital tools
- Increasing awareness of the availability of digital tools
- For the safety of our employees and our community, shifted education and advisory services from in-person to digital platforms
- Reinforcing our mission that “we are all in this together”

APPENDIX C
SMUD shall assist in retaining, recruiting and growing commercial and industrial rate-paying customers.

Projects announced in 2021 include seven new companies creating 442 new jobs:

- **LYT.ai** – Mobility startup with 15 new jobs in the region
- **One Finance** – Financial Tech (50 jobs) - wellbeing is our mission.
- **Pluto** – Bio-Life science (confidential – 230 jobs)
- **QPQ** – International Tech expansion to Folsom (IT network infrastructure to enable a digital universe) - 15 jobs
- **Kubota Tractor** – Manufacturing in Elk Grove (125 jobs with planned expansion)
- **Humanly** – Unified conversation AI technology for recruiting/screening platform - 5 jobs
- **CENTRL** – Co-working/Flexible workspaces expansion from Oregon to California

**Commercial Development:** In 2021, our Commercial Development team actively engaged with approximately 225 commercial, mixed-use and residential project developers throughout our service area. Highlights include:

- Strategic outreach on SMUD bundled programs to developers and builders.
- Managing the Statewide Community Infrastructure Program (SCIP) which allows development projects to levy property taxes to finance eligible infrastructure expenses, including two acquisition agreements for SMUD Fees and Infrastructure.
- Distribution of “Developer Connections” e-newsletters, with a 25%+ open and read rate.
- Began SMUD’s Central City 21kV extension plan to support future development projects currently under construction with an estimated completion of 2022.

**Central City Growth:** The Central City continued to see sustained growth in 2021, especially focused on single- and multi-family development. Development projects located in the Central City face unique challenges based on space constraints and increases in high density development. 17Central located at the former Sacramento Ballet building kicked off construction by D&S Development, which consists of 107 units and ground floor retail. The California Fruit Building is scheduled to finish construction of a boutique hotel in a historic building close to the Golden 1 Center and is expected to begin taking reservations in 2021. The Mansion Inn project began construction adjacent to the California Governor’s Mansion, consisting of 190 units and ground floor retail. The project is anticipated to be completed in late 2021. 1430 Q Street, the mixed-use project adjacent to the lively R Street corridor, completed construction and began occupying rental units. The Fort Sutter Hotel completed construction of their midtown hotel in 2020, near the Sutter Medical Complex in midtown and began formally taking reservations in early 2021. New construction and significant building renovations continued to be robust in 2020; at the close of the year, over 92 development projects or significant building renovation projects were being coordinated by SMUD’s Commercial Development team within the central city zone, which covers roughly seven square miles.

SMUD continued its coordination efforts with UC Davis’ Medical Center Campus expansion to support the planned replacement hospital tower and ambulatory surgical center Aggie Square, the region’s first innovation hub with over 1 million square feet of research, wet labs, commercial space and housing. The development models Atlanta’s Tech Square aimed at attracting top talent, innovation and companies.

2021 continued the substantial growth for development north of downtown. At Metro Air Park, NorthPoint Development LLC, based out of Kansas City, Missouri, completed construction of a 1.3 million square foot Amazon distribution facility in 2021. NorthPoint has 3 additional buildings under construction as of late 2021. Buzz Oates has 6 buildings under construction as of late
2021. SMUD has received eight new SMUD Rule 16 applications for new buildings that are anticipated to begin construction in 2021 at Metro Air Park. It is anticipated that the development will be 40% built out by the end of 2022. North Lake master plan at Hwy 99 and W. Elkhorn Blvd (formerly Greenbriar) continues robust development, as the developer is commencing construction of the phase two portion of the project. At buildout, North Lake will have over 2,100 residential units. SMUD has significant infrastructure planned for North Lake and Metro Air Park and is working to extend 69kV facilities in the area to support four new substations. At completion, the substations will equate to 250MW of new capacity in the area to accommodate future growth.

In Folsom South, residential construction is well underway and is projected to bring over 11,000 new housing units over several years. Major builders such as Toll Brothers, Lennar, KB Home, Richmond American, The New Home Company have completed their initial subdivisions. Two new medical campuses and a new high school are planned for the area and SMUD staff worked closely with their teams in 2021 in planning for facilities to serve the initial load requirements.

Rancho Cordova continues to be one of the fastest growing in the region. SMUD staff worked closely with developers in the Rio Del Oro development with its initial subdivision and two significant industrial customers. KhoVnanian broke ground on its first phase and is planning to go All-Electric. In Elk Grove, SMUD worked with City Staff on the Southeast Industrial Area (SEIA) in providing input into a supplemental environmental impact report to include SMUD needs to serve the development. The SEIA Project involves the annexation of up to 571 acres into the City of Elk Grove from unincorporated Sacramento County and the development of this area with a range of industrial and commercial uses. The annexation is taking place in phases. The first phase occurred in June 2021 and covers approximately 390 acres (referred to as the Phase 1 Annexation). To accomplish this, the Project included amendments to the City General Plan, the adoption of Prezoning, adoption of a Specific Plan, and the establishment of infrastructure master plans addressing public water, sewer, drainage, and transportation.

In addition, the Commercial Development team worked closely in numerous, high-profile and critical projects to the community including transitional, low-income, and supportive housing such as St. Anton Communities and WEAVE. Transformational projects such as the Railyards, the Department of General Services’ Richards Boulevard Office Complex, and multiple master plan residential projects. Development projects include Folsom South, Barrett Ranch, and additional infrastructure coordination to support development in Rio del Oro, the Sunridge Specific Plan Area along Douglas Road and Sunrise Blvd in Rancho Cordova.

**Indoor Cultivation:** The Customer Experience Delivery team turned to technology again in 2021 to realize another successful year supporting SMUD’s existing and future indoor cultivation customers. As an essential business, the cannabis industry continued to grow its presence in SMUD’s territory as evidenced by an 85% increase in revenue directly correlated to the increase in facilities coming online exceeding $17 million in 2021.

2021 marked the third year of SMUD’s partnership with the Greater Sacramento Urban League’s Cannabis Opportunity Reinvestment and Equity (CORE) program. The purpose of this program is to provide equitable access to the cannabis industry through education and training. Members of the program receive support and guidance in developing their facilities. They are taught best practices in using energy efficiently and how to take advantage of SMUD’s resources including energy efficiency incentives, program resources, and a dedicated Strategic Account Advisor to provide ongoing support and direction. We have now presented to over 60 graduates and continue to support those adversely affected by the disproportionate enforcement of cannabis regulation. As a result of the program, participants have been provided
the education, tools, and support required to build successful businesses in the cannabis industry ranging from multi-faceted incubator facilities to the brick-and-mortar dispensaries.

APPENDIX D

SMUD shall offer economic development rates and program incentives.

SMUD offers economic incentives to help attract new businesses and expand existing ones to grow the regional economy. Incentives range from helping design new construction to offering energy-efficient upgrades for equipment to proposing our Economic Development Rate (EDR).

Economic Development Rate: Customers that exceed 299kW for three consecutive months may qualify for the EDR. This rate has multiple options for our customers, including a frontloaded rate to help reduce initial operating costs, or a fixed discount over the ten-year period. Customers who locate in a disadvantaged community have the same options, but with a larger discount. Additionally, an economic impact study is performed by the Greater Sacramento Economic Council. This ensures the customer is aware of other economic development programs and incentives.

<table>
<thead>
<tr>
<th>Size</th>
<th>Term</th>
<th>Industry Requirements</th>
<th>Job Requirements</th>
<th>Full Service Requirement</th>
<th>Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>300kW+</td>
<td>10 years</td>
<td>No limitations</td>
<td>No minimum requirement</td>
<td>No</td>
<td>Two options for customers to choose:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Standard EDR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Opt A: 6% for years 1-5, declining 1% per year for years 6-10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Opt B: 4.5% for 10 years</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rate for Disadvantaged Communities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Opt A: 8% for years 1-5, declining 1.5% per year for years 6-10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Opt B: 6% for 10 years</td>
</tr>
</tbody>
</table>

Program Incentives: SMUD offered energy efficiency and electrification incentives to help meet the financial responsibility goals and growing sustainability needs of our commercial customers. Our programs offered incentives to help customers install new energy-saving equipment and make energy efficiency and electrification modifications to their buildings. The effort is part of SMUD’s goal to achieve 100% net-zero-carbon by 2030. Incentives offered included but are not exclusive of, energy efficient heating and cooling, domestic hot water, induction cooking, and vehicle electrification, among many others.

Overall, we provided incentives to 363 commercial customers for a combined total program energy savings of 10.71 GWh.

APPENDIX E

SMUD shall offer a contracting program for certified small businesses who are rate-paying customers.

In 2021, we exceeded our SEED Program goal of awarding at least 20% of all contracts to certified small businesses. Specifically, we awarded 23% through over 100 SEED contracts totaling approximately $48 million.

<table>
<thead>
<tr>
<th>Award Type</th>
<th>2021</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total PO $</td>
<td>PO Count</td>
<td>Program %</td>
</tr>
<tr>
<td>SEED Prime</td>
<td>$ 49,274,589.85</td>
<td>30</td>
<td>66%</td>
</tr>
</tbody>
</table>
The SEED team focused its efforts on the following key outreach initiatives:

- **Availability Study**: The Availability Study, a service area business census of vendors likely to do business with SMUD, was completed in 2021. Study data was overlayed onto the Resource Map to inform strategy, outreach and resource allocation to engage businesses in contracting opportunities and remove obstacles for under-resourced communities interested in doing business with SMUD.

- **Business Advisory Committee (BAC)**: SEED hosted four quarterly meetings in 2021 for BAC business organization leaders, raising awareness about the SEED program, the 2030 Zero Carbon Plan, best practices, sponsored events, incentives, commercial programs and contracts awarded to BAC members’ constituents.

- **How to Do Business with SMUD**: The SEED team used virtual formats and collaborated with community partners to deliver 10 educational workshops on SMUD’s procurement program and promote SEED participation opportunities. In 2021, the team delivered the first workshop in Spanish language to the Sacramento Hispanic Chamber of Commerce’s Emprende cohort.

- **“Meet the Buyers” Conference**: SEED’s 10th Annual Meet the Buyers Conference pivoted to a virtual conference format. SEED partnered with the SMB team to expand the event to the Meet the Buyers & Business Resource Expo and included commercial program/resource information. The successful event drew a record 424 registrants, offering 13 panel sessions and education workshops, over 25 speakers and 15 virtual exhibitors. The event was very well-received, with survey results confirming a 100% “met or exceeded expectations” event satisfaction level.

- **SEED Ambassador Program**: The program engages designated employees within SMUD business units in promoting the use of SEED vendors in their workgroup’s contracting activities. The program has over 35 participants and continues to see more referrals from employees, who have also been active in Meet the Buyers and Business Advisory Committee meetings.

- **Sheltered Market Initiatives**: The SEED team continually explores innovative ways to foster small business participation in solicitations and worked closely with Supply Chain to identify 6 sheltered market contracting opportunities in the areas of commodities and professional services. The contracts are specific only to verified SEED vendors and totaled approximately $377,000.

- **SEED Quarterly Newsletter**: The SEED team distributed over 572 electronic copies of the quarterly newsletter to external partners and SEED Ambassadors to highlight SEED program resources and contracting opportunities. It features information including free government contracting services, SEED supplier success stories, recent contract awards, upcoming bid opportunities, and small business events and workshops, and it is also available on smud.org.

- **Procurement Platform Transition to Ariba**: The SEED team continued to collaborate with Procurement to support the evolution of the Ariba platform, addressing and identifying solutions for supplier experience and enhancements, as well as providing training to local small businesses.
RESOLUTION NO. ______________

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

This Board accepts the monitoring report for Strategic Direction SD-13,
Economic Development Policy, substantially in the form set forth in Attachment ____
ereto and made a part hereof.
### BOARD AGENDA ITEM

**STAFFING SUMMARY SHEET**

**No. DP&O 22-005 Committee Meeting & Date**
Board Meeting Date
October 20, 2022

### Consent Calendar

<table>
<thead>
<tr>
<th>STAFFING SUMMARY SHEET</th>
<th>10/18/22</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Claire Rogers</td>
<td></td>
</tr>
<tr>
<td><strong>2.</strong> Frankie McDermott</td>
<td></td>
</tr>
<tr>
<td><strong>3.</strong> Jennifer Davidson</td>
<td></td>
</tr>
<tr>
<td><strong>4.</strong> Lora Anguay</td>
<td></td>
</tr>
<tr>
<td><strong>5.</strong> Scott Martin</td>
<td></td>
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<td><strong>6.</strong></td>
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<td><strong>7.</strong></td>
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<td><strong>8.</strong></td>
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<td><strong>9.</strong></td>
<td></td>
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<tr>
<td><strong>10.</strong> CEO &amp; General Manager</td>
<td></td>
</tr>
</tbody>
</table>

### NARRATIVE:

**Requested Action:** Discuss the policy and process for Strategic Direction SD-14, System Enhancement (SD-14) and accept the monitoring report for SD-14.

**Summary:** The purpose is to provide the Board with the annual update on SD-14, System Enhancement, for the year 2021. The information in the monitoring report could be used by the Board to determine if the policy needs to be revised or further developed. If so, those items could be scheduled for subsequent meetings. Staff will also discuss how local agencies can leverage SD-14 to mitigate the impact of power poles located on sidewalks.

**Board Policy:** SD-14, System Enhancement.

**Benefits:** Allows the Board of Directors a better understanding of Board Policies and gives them an opportunity to make revisions if necessary.

**Cost/Budgeted:** In June 2020, the Board approved suspension of funding new projects under SD-14 for 2020, 2021 and 2022 (Resolution 20-06-23). Previously committed projects, a total of four, under the Policy would continue to be funded during these years. The total 2021 budget for these four projects was $1.23 million and the 2021 actual spending was approximately $1.22 million.

**Alternatives:** Provide the Board written reports and communications through the CEO & General Manager.

**Affected Parties:** N/A

**Coordination:** Line Assets; Local Government Affairs

**Presenter:** Maria Veloso Koenig; Director, Distribution Planning & Operations

### Additional Links:

**SUBJECT**
 SD-14, System Enhancement Board Monitoring Report

**ITEM NO.** (FOR LEGAL USE ONLY) 10

**ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.**
As a community-owned utility, SMUD recognizes that the relocation or underground placement of primary voltage power lines may be desirable to local jurisdictions to improve aesthetics, economic vitality, safety and disabled access. Therefore, it is a key value of SMUD to make selected distribution system enhancements, such as permanent relocation or underground placement of existing primary power lines below 69 kV.

a) SMUD will, at its expense and where technically feasible, permanently relocate or underground existing overhead distribution facilities provided the governing body of the city or county in which the electric facilities are and will be located has:

i) Identified, after consultation with SMUD, a specific system enhancement project;

ii) Determined the project is in the public interest;

iii) Ensured all existing overhead communication facilities related to the project will also be permanently relocated or placed underground;

iv) Obtained and provided SMUD with all easements necessary for the project.

b) After achievement of core financial targets, SMUD will annually commit up to one-half of one percent of its annual gross electric sales revenue to system enhancements. The proposed projects will be subject to SMUD's annual budget approval process, and uncommitted funds from any given year will not be carried
over to future years. Funding will be assigned to projects brought forward by local cities or counties based on applying the following criteria (not in order of preference):

i) Project scale and/or cost when measured against available SMUD resources.

ii) Requesting entity has developed full scope, obtained all necessary easements, and development plan for customer service conversion from overhead to underground, as required.

iii) Extent to which the costs are borne by others.

Monitoring Method: GM Report
Frequency: Annual
SACRAMENTO MUNICIPAL UTILITY DISTRICT  
OFFICE MEMORANDUM

TO:          Board of Directors                      DATE: October 5, 2022

FROM:        Claire Rogers CR101522

SUBJECT:     Audit Report No. 28007428  
             Board Monitoring Report; SD-14: System Enhancement

Audit and Quality Services (AQS) received the SD-14 System Enhancement  
2021 Annual Board Monitoring Report and performed the following:

- A review of the information presented in the report to determine the possible  
  existence of material misstatements;
- Interviews with report contributors and verification of the methodology used to  
  prepare the monitoring report; and
- Validation of the reasonableness of a selection of the report’s statements and  
  assertions.

During the review, nothing came to AQS’ attention that would suggest the SD  
Board Monitoring report did not fairly represent the source data available at the  
time of the review.

CC:

Paul Lau
1) Background

Strategic Direction 14, the System Enhancement Board policy states that:

As a community-owned utility, SMUD recognizes that the relocation or underground placement of primary voltage power lines may be desirable to local jurisdictions to improve aesthetics, economic vitality, safety and disabled access. Therefore, it is a key value of SMUD to make selected distribution system enhancements, such as permanent relocation or underground placement of primary power lines below 69 kV.

a) SMUD will, at its expense and where technically feasible, permanently relocate or underground existing overhead distribution facilities provided the governing body of the city or county in which the electric facilities are and will be located has:
   i) Identified, after consultation with SMUD, a specific system enhancement project;
   ii) Determined the project is in the public interest;
   iii) Ensured all existing overhead communication facilities related to the project will also be permanently relocated or placed underground;
   iv) Obtained and provided SMUD with all easements necessary for the project.

b) After achievement of core financial targets, SMUD will annually commit up to one-half of one percent of its annual gross electric sales revenue to system enhancements. The proposed projects will be subject to SMUD’s annual budget approval process, and uncommitted funds from any given year will not be carried over to future years. Funding will be assigned to projects brought forward by local cities or counties based on applying the following criteria (not in order of preference):
   i) Project scale and/or cost when measured against available District resources.
   ii) Requesting entity has developed full scope, obtained all necessary easements, and development plan for customer service conversion from overhead to underground, as required.
   iii) Extent to which the costs are borne by others.
2) Executive summary

SD-14 states that SMUD “will annually commit up to one-half of one percent of its annual gross electric sales revenue to system enhancements.” However, as a result of SMUD’s financial challenges caused by the COVID-19 pandemic, on June 9, 2020 the Board of Directors approved suspension of funding new projects under SD-14 for 2020, 2021 and 2022 (Resolution 20-06-03). Previously committed projects (a total of four) under the Policy continued to be funded during these years.

SMUD is in compliance with SD-14, System Enhancement.

The planning and execution of SD-14 projects is typically a multi-year process that starts with a preliminary work scope that is used to determine a ballpark cost estimate, to the finalization of the work scope that includes a detailed design and detailed cost estimate. After necessary permits and easements are obtained, the project is released for execution/construction. Tables 1 and 2 below show the committed projects and their status in 2021. The budget for these four multi-year projects were included in the approved operational plans and budgets.

Table 1: Committed projects completed in 2021

<table>
<thead>
<tr>
<th>Local Jurisdiction</th>
<th>Project Title</th>
<th>Total Cost Estimate(a)</th>
<th>2021 Project Budget</th>
<th>2021 Project Spend</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacramento County</td>
<td>Fair Oaks Blvd Landis to Angelina (0.3 mile)</td>
<td>$361K</td>
<td>$0K (b)</td>
<td>$82K</td>
<td>completed in Q1 2021</td>
</tr>
<tr>
<td>Sacramento County</td>
<td>Hazel Avenue Phase 3 Sunset to Madison (0.7 mile)</td>
<td>$1,443K</td>
<td>$1,153K</td>
<td>$1,138K</td>
<td>completed in 2021</td>
</tr>
</tbody>
</table>

(a) Cost estimate is based on the detailed design.
(b) The original schedule called for the project to be completed by the end of 2020. Some work carried over into Q1 2021.
Table 2: Committed projects with preliminary work scope

<table>
<thead>
<tr>
<th>Local Jurisdiction</th>
<th>Project Title</th>
<th>Ballpark Cost Estimate</th>
<th>2021 Project Budget</th>
<th>2021 Project Spend</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus Heights</td>
<td>Auburn Blvd. Rusch Park to I-80 (0.75 mile)</td>
<td>$2,500K</td>
<td>$0</td>
<td>$3.3K</td>
<td>2024 planned construction start date</td>
</tr>
<tr>
<td>Elk Grove</td>
<td>Elk Grove Blvd b/w Waterman &amp; School Streets (~0.5 mile)</td>
<td>$1,000K</td>
<td>$81K</td>
<td>$0.7K</td>
<td>2024 planned construction start date</td>
</tr>
</tbody>
</table>

**Mitigation of poles located on sidewalks**

Staff researched and evaluated options to help local agencies mitigate the impact of poles that are located on sidewalks. This effort included a review of existing intake processes for local agency projects as well as meeting with representatives from Sacramento County, Citrus Heights, Elk Grove, Folsom, Rancho Cordova, and the City of Sacramento to discuss SMUD’s SD-14 program. The purpose of the meetings was to elicit thoughts from local agency staff on how the SD-14 program could be made more usable.

**The process moving forward**

Customer inquiries/concerns regarding poles on sidewalks will continue to be referred to and handled by the local agencies who are the responsible entities and subject matter experts for sidewalk design, maintenance, and condition evaluation.

To help local agency staff identify and prioritize locations for the agencies’ potential sidewalk maintenance or streetscape improvement projects, SMUD will annually prepare maps of commercial corridors with overhead lines and share these maps with the local agencies, as suggested during our meetings with them. The maps, which will show locations of SMUD’s poles, could also be used as a reference for other capital improvement projects to help improve project planning and coordination.
As part of ongoing education efforts, SMUD staff will also meet with new local agency staff to educate them about SMUD’s SD-14 program and how they can leverage our program to mitigate the impact of poles and sidewalks.

Finally, SD-14 requires the local agencies to provide a public utility easement for newly underground electrical lines to ensure SMUD is not responsible for future relocation costs and has the necessary right for future maintenance. However, feedback from local agencies is that easement acquisition can be a challenge in areas where there may not be sufficient space. To overcome this challenge, SMUD staff will continue exploring custom agreements with local agencies that govern future financial obligations for relocation when SMUD’s facilities remain in the road right-of-way.

3) Additional supporting information

Since the adoption of the SD-14 policy, eleven projects have been funded through the policy for a total of $12.04 million. Table 3 below lists the projects completed by year.

<table>
<thead>
<tr>
<th>Local Jurisdiction</th>
<th>Project Description</th>
<th>SMUD Construction Completion</th>
<th>SMUD Project Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacramento County</td>
<td>Fair Oaks Blvd Landis to Angelina (0.3 mile)</td>
<td>2021</td>
<td>$0.25 M</td>
</tr>
<tr>
<td>Sacramento County</td>
<td>Hazel Avenue Phase 3 Sunset to Madison (0.7 mile)</td>
<td>2021</td>
<td>$1.2 M</td>
</tr>
<tr>
<td>City of Sacramento</td>
<td>Sutter Village (~200 feet)</td>
<td>2019</td>
<td>$0.12 M</td>
</tr>
<tr>
<td>City of Sacramento</td>
<td>Ice Blocks Project R Street b/w 16th &amp; 18th Streets (1,000 ft.)</td>
<td>2017</td>
<td>$0.47 M</td>
</tr>
<tr>
<td>Sacramento County</td>
<td>Hazel Avenue Phase 2 b/w Curragh Downs &amp; Sunset Ave. (1 mile)</td>
<td>2017</td>
<td>$2.3 M</td>
</tr>
<tr>
<td>Sacramento County</td>
<td>Fair Oaks Blvd. b/w Landis Ave. &amp; Engle Rd. (0.5 mile)</td>
<td>2016</td>
<td>$1.2 M</td>
</tr>
<tr>
<td>City of Sacramento</td>
<td>16th and O Streets (1,000 ft.)</td>
<td>2013</td>
<td>$0.3 M</td>
</tr>
<tr>
<td>Location</td>
<td>Street Address and Distance</td>
<td>Year</td>
<td>Cost</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>Citrus Heights</td>
<td>Auburn Blvd. b/w Sylvan Corners &amp; Rusch Park (1 mile)</td>
<td>2013</td>
<td>$2.6 M</td>
</tr>
<tr>
<td>Sacramento County</td>
<td>North Highlands Town Ctr. at Watt Ave. &amp; Freedom Park Dr. (0.5 mile)</td>
<td>2012</td>
<td>$1.1 M</td>
</tr>
<tr>
<td>City of Sacramento</td>
<td>7th St. b/w North B &amp; Richards Blvd. (1,500 ft.)</td>
<td>2012</td>
<td>$1.3 M</td>
</tr>
<tr>
<td>City of Sacramento</td>
<td>Richards Blvd. b/w North 5th &amp; North 7th Streets (1,000 ft.)</td>
<td>2012</td>
<td>$1.2 M</td>
</tr>
</tbody>
</table>

Total: $12.04 M

4) Challenges

There were no challenges encountered with the implementation of the Board policy in 2021.

5) Recommendation

It is recommended that the Board accept the 2021 Monitoring Report for SD-14, System Enhancement.
RESOLUTION NO. ______________

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

This Board accepts the monitoring report for Strategic Direction SD-14,
System Enhancement, substantially in the form set forth in Attachment _____ hereto
and made a part hereof.
**Board Meeting Date**
October 20, 2022

<table>
<thead>
<tr>
<th>TO</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Lora Anguay</td>
<td>7.</td>
</tr>
<tr>
<td>4.</td>
<td>9. Legal</td>
</tr>
<tr>
<td>5.</td>
<td>10. CEO &amp; General Manager</td>
</tr>
</tbody>
</table>

**Consent Calendar** | Yes | No If no, schedule a dry run presentation. |
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>FROM (IPR)</td>
<td>DEPARTMENT</td>
<td></td>
</tr>
<tr>
<td>Jennifer Restivo</td>
<td>Planning &amp; Performance</td>
<td></td>
</tr>
<tr>
<td>MAIL STOP</td>
<td>EXT.</td>
<td>DATE SENT</td>
</tr>
<tr>
<td>B356</td>
<td>5193</td>
<td>10/7/22</td>
</tr>
</tbody>
</table>

**NARRATIVE:**

**Requested Action:** Approve amendment to the SMUD 2022 Budget Resolution to augment the Commodity line item by $309.3 million.

**Summary:** Presentation to the Board of Directors regarding SMUD’s 2022 commodity costs, and request amendment of the SMUD 2022 Budget Resolution. Due to the prolonged outage of the Cosumnes Power Plant and the heat storm in September 2022, commodities costs have increased significantly. Seeking Board’s approval to augment the 2022 budget due to higher commodity costs.

**Board Policy:** GP-3 – Board Job Description

**Benefits:** Provide Board Members information regarding SMUD’s commodity costs.

**Cost/Budgeted:** N/A

**Alternatives:** N/A

**Affected Parties:** SMUD

**Coordination:** Planning & Performance

**Presenter:** Jennifer Restivo

**Additional Links:**

**Subject:** SMUD 2022 Budget Resolution Amendment

ITEM NO. (FOR LEGAL USE ONLY) 11

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
RESOLUTION NO. ____________

WHEREAS, by Resolution No. 21-12-10, adopted December 9, 2021, this Board approved the 2022 Budget Resolution, including a line item expenditure for $440,680,590 for Commodity – purchased power, fuel, and wheeling; and

WHEREAS, there is now a need to augment the SMUD 2022 Budget, which will increase the line item expenditure for Commodity – purchased power, fuel, and wheeling by $309,319,410; NOW, THEREFORE,

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

Section 1. Section 2. Of Resolution No. 21-12-10 is hereby amended to increase the funds budgeted for the line item for Commodity – purchased power, fuel, and wheeling to increase the 2022 Commodity – purchased power, fuel, and wheeling budget to $750,000,000.

Section 2. In all other respects, the 2022 Budget Resolution is reaffirmed.
# BOARD AGENDA ITEM

## STAFFING SUMMARY SHEET

### Committee Meeting & Date
Finance & Audit – 10/18/22
Board Meeting Date
October 20, 2022

### TO

| 1. | Jesse Mays |
| 2. | Robert Adams |
| 3. | Casey Fallon |
| 4. | Jennifer Davidson |
| 5. | Lora Anguay |

### TO

| 6. | Scott Martin |
| 7. | Legal |
| 8. | CEO & General Manager |

### Consent Calendar

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### NARRATIVE:

**Requested Action:** Approve an increase the aggregate contract not-to-exceed amount for fleet bulk fuel and fleet fuel card program services by $12,481,000, from $16 million to $28.48 million, for Contract Nos. 4600001005 and 4500097459 with RAMOS OIL COMPANY INC.

**Summary:** The contracts were awarded on a competitive basis to Ramos Oil Company Inc in April 2016 (Board Resolution No. 16-05-08). The original contracts were awarded for the period from June 1, 2016, to May 31, 2019, for an aggregate not-to-exceed amount of $10,000,000.

The Fleet Bulk Fuel Contract No. 4600001005 supplies SMUD with Unleaded Gasolines, Ultra Low Sulfur Diesel, Bio-Diesels: B5, B10, B15 and B20 and renewable diesel to all SMUD facilities. Contract Change No. 1 to Contract No. 4600001005 extended the term date to 1/31/20. Contract Change No. 2 to Contract No. 4600001005 extended the term date to 1/31/21. Contract Change No. 3 to Contract No. 4600001005 increased the contract not-to-exceed amount by $3,800,000 to $8 million (per the BL-8 limit) and extended the term to 12/31/2024.

The Fleet Fuel Card Program Contract No. 4500097459 supplies fuel cards to SMUD. Ramos also provides fuel card fueling at 26 of their locations in addition to over 55,000 fleetwide sites. Additionally, Ramos’ fuel card program provides immediate lockout of cards, time of day and day of week fueling restrictions, product control, transaction and gallons limits, email notifications, and real-time access to our account information 24/7. Contract Change No. 1 to Contract No. 4500097459 extended the term date to 1/31/20. Contract Change No. 2 to Contract No. 4500097459 extended the term date to 1/31/21. Contract Change No. 3 to Contract No. 4500097459 increased the contract not-to-exceed amount by $1,000,000. Contract Change No. 4 to Contract No. 4500097459 increased the contract not-to-exceed amount by $1,200,000 to $8 million (per the BL-8 limit) and extended the term to 12/31/2024.

In April 2016 when the initial contracts were awarded the BL-8 limits for operational inventory and non-inventory materials were $5 million and $3 million, respectively. In December 2016, those board limits were each raised to $8 million. Contract Change No. 3 to Contract No. 4600001005 and Contract Change No. 4 to Contract No. 4500097459 were executed in compliance with the delegated authority of the Director, Procurement, Warehouse & Fleet.

Because these contracts include cost control mechanisms that are constantly aligning with the market fuel rate and Ramos has performed well for SMUD under these contracts, it is in SMUD’s best interest to increase and continue with these contracts.

On August 23, 2022, we paid $4.38 per gallon, which is below the fair market price of $4.91 shown by Procurement IQ. The actual amount paid for the fuel per gallon will rise and fall based on the OPIS,
Sacramento Daily Rack average for unleaded fuel and diesel and San Francisco Spot Market for ethanol (E-85) plus Ramos’ markup. SMUD consistently receives fair and reasonable pricing from Ramos.

Currently, the aggregate contract balance is approximately $2,281,000

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<td>Ariba3291</td>
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**Board Policy:** Board-Staff Linkage BL-8, Delegation to the Chief Executive Officer and General Manager with Respect to Procurement; Strategic Direction SD-7, Environmental Leadership

**Benefits:** Increasing these contracts will ensure a continuation of a stable supply of fuel and a fuel card program.

**Cost/Budgeted:** $12,481,000; Budgeted for 2022-2024 by Corporate Financial & Enterprise Services, Fleet.

**Alternatives:** Do not increase and re-bid or purchase fuel on a spot buy basis.

**Affected Parties:** Fleet, Supply Chain Services, and Ramos Oil Company Inc.

**Coordination:** Fleet and Supply Chain Services.

**Presenter:** Casey Fallon, Director, Procurement, Warehouse & Fleet

Additional Links:

SUBJECT: Increase the Bulk Fuel and Fuel Card Program Contract Amounts

ITEM NO. (FOR LEGAL USE ONLY) 12

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
WHEREAS, by Resolution No. 16-05-08, adopted on May 19, 2016, this Board authorized the Chief Executive Officer and General Manager to award contract(s) for fleet fuel card program services (Fleet Fuel Card Program Contract No. 4500097459) and for fleet bulk fuel services (Fleet Bulk Fuel Contract No. 4600001005) (collectively, the Contracts) to Ramos Oil Company Inc. (Ramos) in the aggregate amount of $10 million for a three-year period from June 1, 2016, to May 31, 2019; and

WHEREAS, Contract Change No. 1 to the Contracts extended the expiration date to January 31, 2020; and

WHEREAS, Contract Change No. 2 to the Contracts extended the expiration date to January 31, 2021; and

WHEREAS, Contract Change No. 3 to the Fleet Fuel Card Program Contract No. 4500097459 increased that contract by $1 million; and

WHEREAS, Contract Change No. 3 to the Fleet Bulk Fuel Contract No. 4600001005 increased that contract by $3.8 million and extended the expiration date to December 31, 2024; and

WHEREAS, Contract Change No. 4 to the Fleet Fuel Card Program Contract No. 4500097459 increased that contract by $1.2 million and extended the expiration date to December 31, 2024; and

WHEREAS, by Resolution No. 16-12-18, adopted on December 15, 2016, this Board raised the limit for operational inventory and non-inventory materials under Board-Staff Linkage BL-8, Delegation to the Chief Executive Officer and General
Manager (BL-8) from $5 million and $3 million, respectively, each to $8 million, and
Contract Change No. 3 to the Fleet Bulk Fuel Contract No. 4600001005 and Contract
Change No. 4 to the Fleet Fuel Card Program Contract No. 4500097459 were
executed in compliance with the delegated authority of the Director, Procurement,
Warehouse & Fleet; and

WHEREAS, increasing the aggregate amount for the Contracts will
ensure continuity while maintaining cost control mechanisms that constantly align with
market fuel rates; NOW, THEREFORE,

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

Section 1. That this Board hereby authorizes the Chief Executive
Officer and General Manager, or his designee, to increase the aggregate contract not-
to-exceed amount by $12,481,000, from $16 million to $28.48 million, for Contract No.
4500097459 for fleet fuel card program services (Fleet Fuel Card Program Contract)
and Contract No. 4600001005 for fleet bulk fuel services (Fleet Bulk Fuel Contract)
(collectively, the Contracts) with Ramos Oil Company Inc.

Section 2. The Chief Executive Officer and General Manager, or his
designee, is authorized to make future changes to the terms and conditions of the
Contracts that, in his prudent judgment: (a) further the primary purpose of the
Contracts; (b) are intended to provide a net benefit to SMUD; and (c) do not exceed the
authorized contract amounts and applicable contingencies.
## Board Agenda Item

**Staffing Summary Sheet**

### Board Meeting Date
- October 20, 2022

### Committee Meeting & Date
- Finance & Audit – 10/18/22

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<tr>
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<tr>
<td>1. Jesse Mays</td>
<td>6. Jennifer Davidson</td>
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<td>2. Robert Adams</td>
<td>7. Lora Anguay</td>
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<td>3. Casey Fallon</td>
<td>8. Scott Martin</td>
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<td>5. Frankie McDermott</td>
<td>10. CEO &amp; General Manager</td>
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From (IPR)
- Katherine Manne

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### NARRATIVE:

**Requested Action:**

Approve an increase to the aggregate contract not-to-exceed amount for general line construction services by $20 million, from $20 million to $40 million, for Contract No. 4600001474 with Hot Line Construction, Inc. and Contract No. 4600001475 with Mountain G Enterprises.

**Summary:**

The original contracts were awarded on a competitive basis to Hot Line Construction, Inc. and Mountain G Enterprises in March 2021 (Resolution No. 21-03-06). The original contracts were awarded for the period from March 22, 2021, to March 21, 2023, for a total aggregate contract not-to-exceed amount of $20 million. The work generally consists of overhead and underground line construction and maintenance on 12/21kv and 69kv sub transmission lines.

Contract Change No. 01 to Contract No. 4600001474 with Hot Line Construction, Inc. increased their rates by 7.14%, 5.44% of which accounted for labor as a direct result of Hot Line’s agreement with the International Brotherhood of Electrical Workers (IBEW) 1245 that became effective on June 1, 2022. The remaining 1.7% of the increase was for increased fuel costs since the time of bid.

Contract Change No. 01 to Contract No. 4600001475 with Mountain G Enterprises increased Rate Schedule, Part B, Line Items 11 and 12 by ~36% and ~45%, respectively.

Contract Change No. 02 to Contract No. 4600001475 with Mountain G Enterprises added subcontractor, WBE Traffic Control Inc. to Exhibit 1 - Designation of Prime Contractor, Subcontractors and Suppliers to perform traffic control where lane closures and/ or night work is required. WBE Traffic Control Inc. is a verified Supplier Education and Economic Development (SEED) vendor.

Contract Change No. 03 to Contract No. 4600001475 with Mountain G Enterprises increased their rates by 5.2% as a direct result of Mountain G Enterprises’ agreement with the IBEW 1245 that became effective on June 1, 2022.

SMUD has been adversely affected by the labor climate induced by Pacific Gas & Electric (PG&E) and their ongoing commitment to reduce wildfire risk across its service area. As a result, SMUD has lost contract crews that supported critical Line Assets programs. This loss has caused Line Assets to strategically realign its workload and the work performed by internal SMUD crews. Securing the services provided by Hot Line Construction, Inc. and Mountain G Enterprises will allow the business unit the ability to augment general line construction work while maintaining flexibility in its realignment efforts.

Wood Mackenzie Supply Market Cost Intelligence predicts a labor increase of 12% from contract award, March 2021 to March 2025. This information confirms pricing from Hot Line Construction, Inc. and Mountain G Enterprises is fair and reasonable.
Currently, the contract balance is approximately $1,996,000.

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<th>Contract Actions</th>
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**Board Policy:** Board-Staff Linkage BL-8, Delegation to the Chief Executive Officer and General Manager with Respect to Procurement; Strategic Direction SD-4, Reliability; Strategic Direction SD-6, Safety Leadership; Strategic Direction SD-13, Economic Development Policy

**Benefits:** The additional $20 million in funding will allow Hot Line Construction Inc. and Mountain G Enterprises to continue performance on critical projects for SMUD.

**Cost/Budgeted:** $40 million; Budgeted through March 2025 by Energy Delivery & Operation, Line Assets.

**Alternatives:** Solicit new contracts. It will take SMUD approximately six months to resolicit new contracts that will likely result in the same outcome.

**Affected Parties:** Line Assets, Supply Chain Services, and Contractor.

**Coordination:** Line Assets and Supply Chain Services.

**Presenter:** Casey Fallon, Director, Procurement, Warehouse & Fleet

**Additional Links:**

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**SUBJECT**

Increase in Aggregate Contract Amount for General Line Construction

**ITEM NO. (FOR LEGAL USE ONLY):**

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
WHEREAS, by Resolution No. 21-03-06, adopted on March 18, 2021, this Board authorized the Chief Executive Officer and General Manager to award Contract No. 4600001474 to Hot Line Construction, Inc. (Hot Line Contract) and Contract No. 4600001475 to Mountain G Enterprises (Mountain G Contract) (collectively, the Contracts) to provide general line construction work for a period of two years from March 22, 2021, to March 21, 2023, for a total aggregate contract amount not-to-exceed $20 million; and

WHEREAS, Contract Change No. 1 to the Hot Line Contract increased rates by 7.14%, 5.44% of which accounted for labor and 1.7% for increased fuel costs; and

WHEREAS, Contract Change No. 1 to the Mountain G Contract increased Rate Schedule Part B, Line Items 11 and 12 by approximately 36% and 45%, respectively; and

WHEREAS, Contract Change No. 2 to the Mountain G Contract added Supplier Education and Economic Development (SEED) subcontractor WBE Traffic Control Inc. to Exhibit I - Designation of Prime Contractor, Subcontractors and Suppliers to perform traffic control where lane closures and/or night work is required; and

WHEREAS, Contract Change No. 3 to the Mountain G Contract increased rates by 5.2% for labor; and

WHEREAS, SMUD has been adversely affected by the labor climate induced by Pacific Gas & Electric (PG&E) and its ongoing commitment to
reduce wildfire risk across its service area and the resultant loss of contract crews that supported critical Line Assets programs; and

WHEREAS, increasing the total aggregate amount for the Contracts will allow SMUD to augment general line construction work while maintaining flexibility to realign its internal workforce to complete workload;

NOW, THEREFORE,

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

Section 1. That this Board hereby authorizes the Chief Executive Officer and General Manager, or his designee, to increase the aggregate contract not-to-exceed amount for general line constructions services by $20 million, from $20 million to $40 million, for Contract No. 4600001474 with Hot Line Construction, Inc. and Contract No. 4600001475 with Mountain G Enterprises (collectively, the Contracts).

Section 2. The Chief Executive Officer and General Manager, or his designee, is authorized to make future changes to the terms and conditions of the Contracts that, in his prudent judgment: (a) further the primary purpose of the Contracts; (b) are intended to provide a net benefit to SMUD; and (c) do not exceed the authorized contract amounts and applicable contingencies.
NARRATIVE:

Requested Action: Approve an increase to the aggregate contract not-to-exceed amount for Upper American River Project (UARP) Reservoir Project Wildfire Risk Reduction services by $5 million, from $8 million to $13 million, for Contract No. 4600001538 with TSU-Tree Service Unlimited, Inc., Contract No. 4600001539 with Mountain F. Enterprises, Inc., and Contract No. 4600001540 with The Original Unlimited Tree Service Co.

Summary: The original contracts were awarded on a competitive basis to TSU-Tree Service Unlimited, Inc., Mountain F. Enterprises, Inc., and The Original Unlimited Tree Service Co. in November 2021. The original contract was awarded for the period from November 23, 2021, to December 31, 2024, for an aggregate not-to-exceed amount of $8 million. The work generally consists of vegetation management in SMUD’s Transmission Right of Way (ROW) in the UARP.

The demand for vegetation management contractors continues to increase with the dry weather and is expected to continue through spring. The optimal time for SMUD to perform vegetation management work in the UARP is winter for lower elevations and spring for the higher elevations. SMUD awarded contracts to three of the four proposers of the original solicitation and the contractors have all performed well. SMUD is requesting to increase the contract aggregate amount by $5 million, from $8 million to $13 million, to ensure SMUD is able to retain qualified vegetation management contractors to execute UARP Reservoir Project Wildfire Risk Reduction work.

Wood Mackenzie Supply Market Intelligence indicates a 1.72% increase in vegetation management costs from November 2021 to October 2022 and all three vendors will continue to hold their pricing through the contract term justifying their rates as fair and reasonable.

Currently, the contract balance is approximately $1,996,000.

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Board Policy: Board-Staff Linkage BL-8, Delegation to the Chief Executive Officer and General Manager with Respect to Procurement; Strategic Direction SD-4, Reliability; Strategic Direction SD-6, Safety Leadership

Benefits: The additional $5 million in funding will allow TSU-Tree Service Unlimited, Inc., Mountain F. Enterprises, Inc., and The Original Unlimited Tree Service Co. to continue to provide vegetation management services to SMUD in the UARP to mitigate wildfire risk.
Cost/Budgeted: $13 million; Budgeted through March 2024 by Energy Delivery & Operation, Line Assets.

Alternatives: Solicit new contracts for these services. By soliciting new contracts SMUD may miss optimal time to perform vegetation management work in the winter and spring.

Affected Parties: Line Assets, Supply Chain Services, and Contractor.

Coordination: Line Assets and Supply Chain Services.

Presenter: Casey Fallon, Director, Procurement, Warehouse & Fleet

Additional Links:

SUBJECT
Increase in Aggregate Contract Amount for
UARP Reservoir Project Wildfire Risk Reduction

ITEM NO. (FOR LEGAL USE ONLY) 14

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
RESOLUTION NO. __________

WHEREAS, Contract No. 4600001538 with TSU-Tree Service Unlimited, Inc., Contract No. 4600001539 with Mountain F. Enterprises, Inc., and Contract No. 4600001540 with The Original Unlimited Tree Service Co. (collectively, the Contracts) were awarded on a competitive basis in November 2021 to provide vegetation management services in SMUD’s Transmission Right of Way (ROW) in the Upper American River Project (UARP) for the period November 23, 2021, to December 31, 2024, for an aggregate contract not-to-exceed amount of $8 million; and

WHEREAS, the demand for vegetation management contractors continues to increase with dry weather and is expected to continue through spring; and

WHEREAS, the optimal time for SMUD to perform vegetation management work in the UARP is winter for lower elevations and spring for higher elevations; and

WHEREAS, increasing the total aggregate amount for the Contracts will allow SMUD to retain qualified vegetation management contractors to complete UARP Reservoir Project Wildfire Risk Reduction work at a fair and reasonable price; NOW, THEREFORE,

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

Section 1. That this Board hereby authorizes the Chief Executive Officer and General Manager, or his designee, to increase the aggregate
contract not-to-exceed amount for Upper American River Project (UARP) Reservoir Project Wildfire Risk Reduction services by $5 million, from $8 million to $13 million, for Contract No. 4600001538 with TSU-Tree Service Unlimited, Inc., Contract No. 4600001539 with Mountain F. Enterprises, Inc., and Contract No. 4600001540 with The Original Unlimited Tree Service Co. (collectively, the Contracts).

Section 2. The Chief Executive Officer and General Manager, or his designee, is authorized to make future changes to the terms and conditions of the Contracts that, in his prudent judgment: (a) further the primary purpose of the Contracts; (b) are intended to provide a net benefit to SMUD; and (c) do not exceed the authorized contract amounts and applicable contingencies.
Requested Action:

a. Approve contract change to Contract No. 4500110473 with United Health Care Insurance Company ("United HealthCare") approving 2023 medical insurance premium rates and extending the contract by one year for the period January 1, 2023, through December 31, 2023. The total estimated cost for 2023, based on the current enrollment population, is $37.4 million; and

b. Approve contract change to Contract No. 4500043215 with Kaiser Permanente approving 2023 medical insurance premium rates and extending the contract by one year for the period January 1, 2023, through December 31, 2023. The total estimated cost for 2023, based on the current enrollment population, is $27.8 million.

Summary:

United HealthCare presented SMUD with a renewal increase for the 2023 plan year of 4.9% for our active employee, pre-65 retiree and Medicare Advantage medical plans. Based on these rates and current enrollment, the total cost for 2023 medical benefit plans is projected at $37.4 million.

Kaiser Permanente presented SMUD with renewal increases for the 2023 plan year of -5.1% for our active employee, pre-65 retiree and Medicare Advantage medical plans. Based on these rates and current enrollment, the total cost for 2023 medical benefit plans is projected at $27.8 million.

These actions will allow SMUD to provide medical benefit plans for the year 2023 to approximately 9,500 employees, retirees, and eligible dependents enrolled in United HealthCare and Kaiser Permanente medical plans in a cost-effective manner.

Note: The estimated costs above will vary based on 2023 employee/retiree Open Enrollment selections and SMUD population.
Coordination: People Services & Strategies, Procurement, United HealthCare and Kaiser Permanente.
Presenter: Laurie Rodriguez, Director, People Services & Strategies

Additional Links:

SUBJECT
Approve 2023 Medical Premiums and Contract Extensions with United HealthCare and Kaiser Permanente

ITEM NO. (FOR LEGAL USE ONLY) 15a

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
### 2023 Active Employees Medical Premium Rates

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<td>United Healthcare PPO – Out Of CA</td>
<td>$1,844.55</td>
<td>$3,892.01</td>
</tr>
<tr>
<td>United Healthcare Medicare Advantage</td>
<td>N/A</td>
<td>N/A</td>
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</table>
RESOLUTION NO. ________________

WHEREAS, by Resolution No. 18-07-03, adopted July 19, 2018, this Board authorized a contract with United Health Care Insurance Company (United HealthCare) to provide administration of SMUD’s medical benefits for an initial three-year period from January 1, 2019, to December 31, 2021, to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 19-10-06, adopted October 17, 2019, this Board approved 2020 premiums through December 31, 2020; and

WHEREAS, by Resolution No. 20-09-05, adopted September 17, 2020, this Board approved 2021 premiums through December 31, 2021; and

WHEREAS, by Resolution No. 21-10-06, adopted October 21, 2021, this Board authorized an extension to the United HealthCare contract to provide medical benefits for the year 2022 to SMUD employees, retirees and eligible dependents; and

WHEREAS, it would be in SMUD’s best interest to extend the medical benefit contract with United HealthCare and approve the 2023 premiums through December 31, 2023, because of their distinctive services and relatively lower cost compared to other health plans; NOW, THEREFORE,

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

Section 1. The Chief Executive Officer and General Manager, or his designee, is authorized, on behalf of the SMUD, to approve 2023 medical insurance rates and extend Contract No. 4500110473 with United Health Care Insurance Company by one year, for the period January 1, 2023, through December 31, 2023;
2023 cost estimated at $37.4 million pursuant to the premiums set forth in
Attachment ____ hereto and made a part hereof.

Section 2. The Chief Executive Officer and General Manager, or his
designee, is authorized to make future changes to the terms and conditions of the
contract that, in his prudent judgment: (a) further the primary purpose of the contract;
(b) are intended to provide a net benefit to SMUD; and (c) do not exceed the authorized
contract amounts and applicable contingencies.
**BOARD AGENDA ITEM**

**STAFFING SUMMARY SHEET**

**Committee Meeting & Date**
Finance & Audit – 10/18/22

**Board Meeting Date**
October 20, 2022

<table>
<thead>
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<tr>
<td>2.</td>
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<td>Laurie Rodriguez</td>
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<td>Markisha Webster</td>
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<td>Jennifer Davidson</td>
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**Consent Calendar**
- X Yes
- No If no, schedule a dry run presentation.

**Budgeted**
- X Yes
- No If no, explain in Cost/Budgeted section.

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<td>People Services &amp; Strategies</td>
<td>B251</td>
<td>5761</td>
<td>09/23/2022</td>
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</table>

**NARRATIVE:**

**Requested Action:**

a. Approve contract change to Contract No. 4500110473 with United Health Care Insurance Company ("United HealthCare") approving 2023 medical insurance premium rates and extending the contract by one year for the period January 1, 2023, through December 31, 2023. The total estimated cost for 2023, based on the current enrollment population, is $37.4 million; and

b. Approve contract change to Contract No. 4500043215 with Kaiser Permanente approving 2023 medical insurance premium rates and extending the contract by one year for the period January 1, 2023, through December 31, 2023. The total estimated cost for 2023, based on the current enrollment population, is $27.8 million.

**Summary:**

United HealthCare presented SMUD with a renewal increase for the 2023 plan year of 4.9% for our active employee, pre-65 retiree and Medicare Advantage medical plans. Based on these rates and current enrollment, the total cost for 2023 medical benefit plans is projected at $37.4 million.

Kaiser Permanente presented SMUD with renewal increases for the 2023 plan year of -5.1% for our active employee, pre-65 retiree and Medicare Advantage medical plans. Based on these rates and current enrollment, the total cost for 2023 medical benefit plans is projected at $27.8 million.

These actions will allow SMUD to provide medical benefit plans for the year 2023 to approximately 9,500 employees, retirees, and eligible dependents enrolled in United HealthCare and Kaiser Permanente medical plans in a cost-effective manner.

Note: The estimated costs above will vary based on 2023 employee/retiree Open Enrollment selections and SMUD population.

**Board Policy:**

Strategic Direction SD-3, Access to Credit Markets. SMUD staff negotiated best price and terms with medical providers in consideration of the long-term revenue requirements, debt, and financial risk to SMUD.

Strategic Direction SD-8, Employee Relations. Providing medical benefits to employees supports SMUD’s goal of an inclusive workplace that engages and inspires employees to commit to SMUD’s purpose, vision, and values.

**Benefits:**
Provide quality medical benefits to eligible SMUD employees, retirees, and eligible dependents.

**Cost/Budgeted:**
Assuming current enrollment, SMUD’s share of cost is projected at $57.4 million (after employee/retiree contributions).

**Alternatives:**
Not accept the proposed rate increases; consider other alternatives to meet SMUD obligations.

**Affected Parties:**
All eligible SMUD employees, retirees and eligible dependents participating in SMUD’s medical benefit plans.
Coordination: People Services & Strategies, Procurement, United HealthCare and Kaiser Permanente.

Presenter: Laurie Rodriguez, Director, People Services & Strategies

Additional Links:

SUBJECT
Approve 2023 Medical Premiums and Contract Extensions with United HealthCare and Kaiser Permanente

ITEM NO. (FOR LEGAL USE ONLY) 15b

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
## 2023 Active Employees Medical Premium Rates

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## 2023 Retiree Medical Premium Rates

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RESOLUTION NO. _____________

WHEREAS, by Resolution No. 11-09-03, adopted September 1, 2011, this Board authorized a contract with Kaiser Permanente (Kaiser) to provide medical benefits for the year 2012 to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 12-09-03, adopted September 6, 2012, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2013 to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 13-09-04, adopted September 5, 2013, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2014 to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 14-08-09, adopted August 21, 2014, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2015 to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 15-09-04, adopted September 3, 2015, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2016 to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 16-10-03, adopted October 6, 2016, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2017 to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 17-09-04, adopted September 21, 2017, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2018 to SMUD employees, retirees and eligible dependents; and
WHEREAS, by Resolution No. 18-07-04, adopted July 19, 2018, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2019 to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 19-10-07, adopted October 17, 2019, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2020 to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 20-09-06, adopted September 17, 2020, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2021 to SMUD employees, retirees and eligible dependents; and

WHEREAS, by Resolution No. 21-10-07, adopted October 21, 2021, this Board authorized an extension of the Kaiser contract to provide medical benefits for the year 2022 to SMUD employees, retirees and eligible dependents; and

WHEREAS, it would be in SMUD’s best interest to extend the medical benefit contract with Kaiser and approve the 2023 premiums through December 31, 2023, because of their distinctive services and relatively lower cost compared to other health plans; NOW, THEREFORE,

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

Section 1. The Chief Executive Officer and General Manager, or his designee, is authorized, on behalf of the SMUD, to approve 2023 medical insurance rates and extend Contract No. 4500043215 with Kaiser Permanente by one year, for the period January 1, 2023, through December 31, 2023; 2023 cost estimated at $27.8 million pursuant to the premiums set forth in Attachment ___ hereto and made a part hereof.
Section 2. The Chief Executive Officer and General Manager, or his designee, is authorized to make future changes to the terms and conditions of the contract that, in his prudent judgment: (a) further the primary purpose of the contract; (b) are intended to provide a net benefit to SMUD; and (c) do not exceed the authorized contract amounts and applicable contingencies.
### BOARD AGENDA ITEM

**STAFFING SUMMARY SHEET**

<table>
<thead>
<tr>
<th>TO</th>
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<tbody>
<tr>
<td>1.</td>
<td>Steve Lins</td>
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<td>2.</td>
<td>Frankie McDermott</td>
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<td>3.</td>
<td>Brandy Bolden</td>
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<td>4.</td>
<td>Lora Anguay</td>
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<td>5.</td>
<td>Suresh Kotha</td>
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<tr>
<td>6.</td>
<td>Legal</td>
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<td>7.</td>
<td>CEO &amp; General Manager</td>
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</table>

**Consent Calendar**

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<th>No</th>
<th>If no, schedule a dry run presentation.</th>
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<tbody>
<tr>
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<td>X</td>
<td>Yes</td>
<td>No</td>
<td>(If no, explain in Cost/Budgeted section.)</td>
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</table>

**FROM (IPR) DEPARTMENT**

Andrew Meditz

**DEPARTMENT**

Legal Department

**MAIL STOP EXT. DATE SENT**

B406 6124 09/23/22

**NARRATIVE:**

**Requested Action:** Initiate consideration of two new federal standards in accordance with the Public Utility Regulatory Policies Act of 1978 (PURPA): Demand-Response Practices (Section 111(d)(20)) and Electric Vehicle Charging Programs (Section 111(d)(21)).

**Summary:** The Infrastructure Investment and Jobs Act of 2021 (IIJA) enacted by Congress and signed into law amended PURPA to require Board consideration of two new federal standards. Sections 40104(a)(1) and 40431(a) of the IIJA adds Sections 111(d)(20) and 111(d)(21) to PURPA. As part of the PURPA administrative process, SMUD must commence consideration of the standards by November 15, 2022, and hold a future public hearing to consider each of the proposed standards. The Board is not required to adopt the standards but is required to consider and make findings on or before November 15, 2023.

**Board Policy**

(Número & Title)

Strategic Direction SD-7, Environmental Leadership; Strategic Direction SD-9, Resource Planning; Strategic Direction SD-11, Public Power Business Model

**Benefits:** Compliance with PURPA and Board consideration of federal standards

**Cost/Budgeted:** N/A

**Alternatives:** None

**Affected Parties:** N/A

**Coordination:** Legal, Demand Response and Electric Vehicle program staff, Rates/Pricing Dept.

**Presenter:** Steve Lins, Deputy General Counsel and Director of Government Affairs

**Additional Links:**

**SUBJECT**

Public Utility Regulatory Policies Act (PURPA) Standards

ITEM NO. (FOR LEGAL USE ONLY) 16

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
RESOLUTION NO. ______________

WHEREAS, the Infrastructure Investment and Jobs Act of 2021 (IIJA) was signed into law on November 15, 2021; and

WHEREAS, the IIJA adds Sections 111(d)(20) and 111(d)(21) to the Public Utility Regulatory Policies Act of 1978 (PURPA), which require SMUD to consider two new proposed federal regulatory standards relating to Demand-Response Practices and Electric Vehicle Charging Programs; NOW, THEREFORE,

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

Section 1. SMUD hereby commences consideration of the two new federal regulatory standards set forth in Sections 111(d)(20) and 111(d)(21) of the Public Utility Regulatory Policies Act of 1978 (PURPA).
TO

1. Claire Rogers
2. Frankie McDermott
3. Jennifer Davidson
4. Brandy Bolden
5. Farres Everly
6. Suresh Kotha
7. Lora Anguay
8.
9. Legal
10. CEO & General Manager

Consent Calendar | X | Yes | No (If no, schedule a dry run presentation.) | Budgeted | X | Yes | No (If no, explain in Cost/Budgeted section.)
FROM (IPR) DEPARTMENT | | | | | | |
Ellias van Ekelenburg | | | | | | |
DEPARTMENT | | | | | | |
Env, Safety, and Real Estate Services | | | | | | |
MAIL STOP EXT. DATE SENT | | | | | | |
B209 7475 9/26/2022 | | | | | | |
NARRATIVE:
Requested Action: Accept the monitoring report for Strategic Direction SD-7, Environmental Leadership.

Summary: The purpose of this meeting is to facilitate a discussion with the SMUD Board of Directors on Strategic Direction SD-7, Environmental Leadership (SD-7). The presentation will briefly summarize SMUD’s internal and external environmental programs and initiatives that promote environmental leadership.

Board Policy: Strategic Direction SD-7, Environmental Leadership

Benefits: Clarification of environmental leadership, as defined in SD-7, to better guide SMUD staff’s interpretation and actions to fulfill this directive.

Cost/Budgeted: N/A

Alternatives: N/A

Affected Parties: SMUD customers and employees

Coordination: SMUD Environmental Services, Resource Planning, and Energy Strategy, Resource, & Development, Sustainable Communities

Presenter: Ellias van Ekelenburg, Director, Environmental, Safety & Real Estate Services

Additional Links:
TO: Board of Directors

FROM: Claire Rogers

SUBJECT: Audit Report No. 28007431
Audit and Quality Services (AQS) received the SD-7 *Environmental Leadership* 2021 Annual Board Monitoring Report and performed the following:

- A review of the information presented in the report to determine the possible existence of material misstatements;
- Interviews with report contributors and verification of the methodology used to prepare the monitoring report; and
- Validation of the reasonableness of a selection of the report’s statements and assertions.

During the review, nothing came to AQS’ attention that would suggest the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:
Paul Lau
1. **Background**

   Strategic Direction 7 ([SD-7](#)), Environmental Leadership states that:

   Environmental leadership is a core value of SMUD. In achieving this directive, SMUD will:
   
   a. Conduct its business affairs and operations in a sustainable manner by continuously improving pollution prevention, minimizing environmental impacts, conserving resources, and promoting equity within SMUD’s diverse communities.
   
   b. Provide leadership and innovation to improve air quality and reduce greenhouse gas emissions.
   
   c. Promote the efficient use of energy by our customers.
   
   d. Advance the electrification of vehicles, buildings and equipment.
   
   e. Attract and build partnerships with customers, communities, policy makers, the private sector, and other stakeholders.

2. **Executive Summary**

   SMUD’s focus on environmental leadership is clearly evident in our 2030 Clean Energy Vision and Zero Carbon Plan, but it also includes transparent reporting of GHG emissions, natural resource stewardship and our concerted efforts to make all of our communities more sustainable. This report highlights some of the accomplishments SMUD achieved in 2021 to showcase our commitment to environmental leadership.

   We are compliant with the five tenets of SD-7 and our successes include making CDP’s (formerly known as the Carbon Disclosure Project) “A-List” for tackling climate change and starting our Land Acknowledgement Statement. A number of our staff and programs received distinguished recognition too, and our efforts are highlighted in the following Appendices: Appendix A (Examples of SMUD Efforts Supporting SD-7), Appendix B (2015-2020 SMUD GHG Emissions Trends), Appendix C (Sustainable Communities), and Appendix D (Acronyms).

3. **Additional Supporting Information**

   **2030 Clean Energy Vision and Zero Carbon Plan**
   
   For decades, SMUD has been a leader in clean energy and carbon reduction. SMUD’s goal to eliminate carbon emissions from our power supply is more ambitious than the already aggressive state mandates and is ahead of virtually all other utilities in the United States. Our 2030 Zero Carbon Plan is a flexible road map to achieve our zero carbon goal while ensuring all customers and communities we serve reap the benefits of decarbonization. Zero carbon emissions bring benefits not only globally, but also locally with reduced emissions GHG emissions, improving local air quality, job creation opportunities, and leadership move away from the use of fossil fuels.
Greenhouse Gas (GHG) Emissions
SMUD is a leader in addressing global climate change and is an active member of The Climate Registry (TCR). SMUD reports its third-party verified GHG emissions to the California Air Resources Board (CARB), TCR and CDP. Staff also reports sulfur hexafluoride (SF₆) emissions and aids with reporting GHG emissions from the Joint Power Authorities (JPAs) to the US Environmental Protection Agency (EPA).

For 2021, GHG emissions were approximately 2.425 million metric tons carbon dioxide equivalent (CO₂e)[1]. This is an increase of just over 500 thousand metric tons from 2020 emissions; a trend going back to 2015 (which was an especially severe drought year) can be found in Appendix B. Fluctuations in total emissions year-to-year are primarily attributable to hydroelectricity production and natural gas contract rates. Specifically for 2021, amidst historic drought conditions, there was a significant increase in the amount of unspecified power purchased, due to a nearly 900 GWh shortfall in total hydro generation from 2020 to 2021. Another significant driver of emissions was market purchases. In the future, as we purchase greater quantities of lower emissions-intensity power, we can expect those emissions to decrease. Lower hydroelectricity generation leads to higher utilization of SMUD’s thermal power plants and increased purchased power leading to higher emissions. Over the past several years, SMUD’s efforts to procure power from zero and low-emission sources (e.g., hydro, wind and solar) have resulted in a lower carbon footprint.

A breakdown of emissions by JPAs, and power purchases, with comparisons between 2020 and 2021 can be found in Appendix B.

SMUD uses or supplements the use of biofuels at its thermal power plants to reduce our carbon compliance obligation and we generated approximately 163 GWh of power from biofuels in 2021. Emissions from biofuels are typically considered “carbon-neutral” under several GHG reporting protocols including California’s Cap-and-Trade Program.”

CDP
SMUD was recognized for our leadership in corporate sustainability by global environmental non-profit CDP, attaining leadership level for 2 straight years and securing an A- on our 2021 disclosure. SMUD was recognized for its actions to cut greenhouse gas emissions, mitigate climate risks, and develop the low-carbon economy based on reported data. CDP’s annual environmental disclosure and scoring process is widely recognized as the gold standard of corporate environmental transparency. Through significant demonstrable action on climate, SMUD is leading on environmental ambition, action, and transparency worldwide.

---

[1] The 2020 GHG emissions value represents emissions associated with delivering power to SMUD customers and does not include emissions associated with wholesales into the market. The 2020 emissions from wholesale power are approximately 0.327 million metric tons of CO₂.
**Notices of Violation (NOVs)**
SMUD and its joint powers authority (JPA) contractor, EthosEnergy, strive to be good corporate citizens and responsible environmental stewards that comply with all local, state, and federal rules and regulations. In 2021, we received no NOVs or similar citations that include civil and/or criminal penalties.

**Sustainable Communities**
To promote environmental equity as well as inclusive economic and community development, SMUD continues to focus community partnerships, programs, and neighborhood outreach activities in vulnerable and under-resourced communities through its Sustainable Communities program. SMUD has invested over $11.4 million into this initiative, which takes a boots-on-the-ground approach to tackle issues plaguing our community, while creating an inclusive, clean-energy economy for all communities, with a special emphasis on those in historically under-resourced areas. We rely on grassroots community partnerships and projects to ensure better social well-being, environmental, economic, and mobility outcomes. The goal is to ensure access to an inclusive clean energy future in the Sacramento Region regardless of zip code or socio-economic status by focusing on equitable access to mobility, a prosperous economy, a healthy environment, and social well-being as seen in Appendix C.

**Environmental Justice and California Environmental Quality Act (CEQA) Process**
SMUD now considers environmental justice (EJ) impacts as part of our CEQA review process. The EJ chapter identifies current environmental burdens and relevant socioeconomic characteristics using analysis from elsewhere in the CEQA document and from data sets within the Sustainable Communities Resource Priorities Map including CalEnviroScreen. A proposed project’s potential to worsen existing adverse environmental and public health conditions is evaluated to determine if it would negatively impact the local community. If so, community enhancements are proposed to lessen any negative impacts as part of our CEQA process. Each of our CEQA documents that started in 2021 included an EJ section and none of these projects were found to worsen existing adverse environmental and public health conditions.

**Sacramento Tree Foundation (STF) Sacramento Shade Program**
In 2021, the STF distributed 11,628 trees as part of its Sacramento Shade program serving 3,567 customers (1,551 or 43% in disadvantaged communities). A total of 590 of the trees were planted at public sites such as schools and parks, and 3,454 (30%) were planted in under-canopied communities to help resolve regional tree canopy inequity. The total carbon (stored in biomass and avoided) for these trees is estimated at 25,770.82 metric tons. To better understand issues related to tree planting and care, STF NeighborWoods organizers actively engage residents to help resolve tree planting impediments.

**Land Acknowledgment Statement**
The SMUD Station H Project mitigation efforts highlighted new opportunity areas including meaningful consultation with local Tribes. SMUD staff recognized that it was important to build deeper relationships with local Tribes and take steps beyond what is
required by CEQA and AB52. Recommendations to prepare a Land Acknowledgement Statement came both from SMUD’s Board of Directors and other local Native Americans. In 2021, SMUD staff started outlining the process for Native American culture and issues education, began drafting a Land Acknowledgment Statement as written affirmation of external relationship-building with local Native nations and their citizens, and identifying pathways for ongoing education and reconciliation.

**Wildfire Mitigation Plan (WMP)**
SMUD’s goal is to provide safe, reliable, environmentally sustainable, and economical electric service to its communities. SMUD constructs, maintains, and operates our electrical lines and equipment to minimize any risk of catastrophic wildfire. Our updated 2021 WMP describes the range of activities we are doing to mitigate the threat of power-line ignited wildfires, including various programs, policies and procedures. The WMP meets or exceeds the requirements of Public Utility Commission (PUC) section 8387 for publicly owned electric utilities and customers can find additional information at Wildfire Safety.

**Workflow Integration Program (WIP)**
The WIP processed 430 planned overhead and underground electrical infrastructure projects in 2021, which is a 39% increase from the number of projects review in 2020. Avoidance and minimization measures (AMMs) were prescribed for 61 projects to reduce impacts on sensitive biological resources and the risk of NOVs. Field crews were given information on AMMs in their job packets, including descriptions of resources they could encounter, pre-construction survey requirements and the potential inclusion of biological and/or cultural monitors.

**Electric lawn mowers for customers; equipment electrification**
SMUD partnered with the Sacramento Metropolitan Air Quality Management District (SMAQMD) to launch the Electric Lawn Mower Pilot Program, which provided rebates to help our residential customers make the transition from gas-powered lawn mowers to zero-emission electric ones. The pilot ran from October – November 2021 and 150 customers participated, of which 42 were EAPR customers. Rebates totaled $26,575, with SMUD providing $4,200 ($100 for each EAPR customer) and SMAQMD providing the rest.

Internally, SMUD has been replacing gas/diesel-powered equipment with equivalent electric/battery-powered tools where they are available from the market, including drills, cable cutters, pole saws and top handle chainsaws, hedge trimmers and skill saws. The Facilities team has been researching the use of battery- and electric-powered landscaping equipment and working with a local vendor to evaluate future uses of a battery-powered commercial lawn mower. This year, an all-electric four-wheel drive tractor was purchased for Facilities’ use.

**Financial Successes**
Successful Soil Reuse- In 2021, SMUD diverted 30,254 cubic yards of soil from being disposed at various landfills for an approximate savings of $2.8 million. All soil was
tested and verified to meet acceptable reuse criteria at either SMUD’s North City Landfill or the Downtown Railyards Venture property. SMUD’s new soil reuse program benefits are twofold: 1) avoiding clean soil purchases and soil disposal costs, while 2) avoiding trucking emissions associated with the transportation of these soils throughout the region and state.

North City CalReycle Grant Awarded- Again in 2021, SMUD successfully secured a second $750,000 CalRecycle grant. This grant will be used to significantly offset the construction cost of the North City Landfill Cap (estimated to be under $5 million).

4. Challenges

The COVID-19 pandemic changed how we conduct business as our company and stakeholders pivoted to mostly remote workplaces. SMUD continues to experience challenges with federal, state, and local regulators as rules and regulations evolve, and some agencies are slow to issue permits due to a lack of resources. We expect delays to continue as many long-term agency employees retire and less experienced staff are left to manage changing policies. Additionally, we are actively supporting electric vehicle (EV) integration in our fleet (12.4% electric) as well as our region, which is challenging due to supply chain constraints (including chip availability) and limited availability of electric heavy-duty trucks and construction equipment.

We continue to expend considerable resources on numerous, complicated environmental remediation projects (e.g., the Former Community Linen site, 59th Street Reuse, Thornton Substation, and the North City Landfill Cap Design and Construction). Some of these efforts were additionally challenging due to regulatory changes made at the national level that do not consider California-specific factors.

We conduct monthly eagle injury and mortality monitoring at the Solano Wind Project in compliance with our 2019 Incidental Eagle Take Permit. With ten golden eagle fatalities, we are approaching the 12 eagle incidents authorized under the permit. Operational modifications, including standing curtailment of 19 wind turbines were implemented during Q4 2021. We have implemented land management actions to reduce the attractiveness of the site to eagles. We are coordinating with the U.S. Fish and Wildlife Service on a revised Eagle Conservation Plan and requesting a permit amendment that would increase the amount of take authorized under the Permit. We are also applying for a new 30-year permit that would be effective after the current permit expires in 2024.

5. Recommendation

It is recommended that the Board accept the Monitoring Report for SD-7, Environmental Leadership.

6. Appendices
   A. Examples of SMUD Efforts Supporting SD-7
   C. Sustainable Communities
   D. Glossary of Acronyms
### Appendix A

#### Examples of SMUD Efforts Supporting Strategic Direction 7 (SD-7)

<table>
<thead>
<tr>
<th>SD-7 Requirement</th>
<th>Supporting Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) SMUD will conduct its business affairs and operations in a sustainable manner by continuously improving pollution prevention, minimizing environmental impacts, conserving resources, and promoting equity within SMUD’s diverse communities.</td>
<td>- SMUD exceeds state and federal requirements for public outreach for both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA); Station E; 59th Street; Former Community Linen; North City landfill closure; Station H; Solano 4; Workflow Integration; Wildfire Mitigation Plan; Partnership with Sacramento Tree Foundation (11,628 trees distributed to customers in 2021 with 43% in disadvantaged communities); SMUD Green Team; Environmentally Sustainable Purchasing Program (ESPP); Sustainable Communities; Pollinator Support; SD-5 (Customer Relations); SD-13 (Economic Development); SD-15 (Outreach and Communication); CA Clean Air Day; Waste diversion rate of 77.11%; Asset recovery program for used oil, e-waste, transformers, etc.</td>
</tr>
<tr>
<td>B) SMUD will provide leadership and innovation to improve air quality and reduce greenhouse gas emissions.</td>
<td>- 2030 Clean Energy Vision and Zero Carbon Plan; Third-party verified annual GHG reporting to the U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB), The Climate Registry (TCR) and CDP; GHG reduction efforts; Hydrogenation-Derived Renewable Diesel (HDRD); SF6 database pilot; SD-9 (Resource Planning); Integrated Resource Plan (IRP); SD-10 (Research and Development); Solano 4; ESPP; CA Clean Air Day.</td>
</tr>
<tr>
<td>C) SMUD will promote the efficient use of energy by our customers.</td>
<td>- Greenergy®; SolarShares®; Energy Assistance Program Rate (EAPR); home electricity reports; SMUD app: Incentives, rebates, and loans; web tools; educational opportunities for customers; SD-5 (Customer Relations); SD-13 (Economic Development); SD-15 (Outreach and Communication); Sustainable Communities program; SMUD MoSAC.</td>
</tr>
<tr>
<td>D) SMUD will advance the electrification of vehicles, buildings, and equipment</td>
<td>- California Mobility Center; Fleet Electrification; Building Electrification; Sustainable Communities program; Lawn equipment electrification; Incentives, rebates, and loans.</td>
</tr>
<tr>
<td>E) SMUD will attract and build partnerships with customers, communities, policy makers, the private sector, and other stakeholders.</td>
<td>- 226 Sustainable Communities partnerships; Land Acknowledgement Statement, Electric Power Research Institute (EPRI); Electric Utility Industry Sustainable Supply Chain Alliance (EUISSCA); Partnership with Sacramento Tree Foundation (11,628</td>
</tr>
</tbody>
</table>
trees distributed to customers in 2021 with 43% in disadvantaged communities).
Appendix B


* SMUD electric sales are net of wholesale electricity.

Thermal Power Plant Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Source</th>
<th>2020 MMT CO2e</th>
<th>2021 MMT CO2e</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Emissions less any Cogen Sales</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPP</td>
<td>1,337</td>
<td>1,473</td>
<td>10%</td>
</tr>
<tr>
<td>SCA</td>
<td>291</td>
<td>299</td>
<td>3%</td>
</tr>
<tr>
<td>SPA</td>
<td>248</td>
<td>282</td>
<td>14%</td>
</tr>
<tr>
<td>CVFA</td>
<td>105</td>
<td>111</td>
<td>6%</td>
</tr>
<tr>
<td>McClellan</td>
<td>2.72*</td>
<td>2.75</td>
<td>1%</td>
</tr>
<tr>
<td>Power Purchased and System Losses</td>
<td>269</td>
<td>495</td>
<td>84%</td>
</tr>
<tr>
<td>Net of Unspecified Market Purchases and Sales</td>
<td>-327</td>
<td>-238</td>
<td>-27%</td>
</tr>
<tr>
<td>Total</td>
<td>1,926</td>
<td>2,425</td>
<td>26%</td>
</tr>
</tbody>
</table>

*This 2020 value for McClellan also includes a nominal amount of emissions (2.06 MMT) from the Ivanpah solar facility; we are no longer accounting for it in this way starting 2021, since it is already included in the Power Purchased category.

1 Unlike SD-9, the emissions data in SD-7 is not normalized.
Appendix C
Sustainable Communities Deliverables and Accomplishments To-Date

To deploy comprehensive resources for our communities most in need, we must align our region’s investments toward the goal of creating and supporting healthy, vibrant, and economically sustainable neighborhoods. Our Sustainable Communities Resource Priorities Map is a result of SMUD’s data-driven approach to geographically identify areas of inequity within the Sacramento region that highlight where future resources may be optimally utilized. This interactive map helps analyze current data to identify under-resourced and distressed areas in our region, driven by lack of community development, income, housing,
employment opportunities, transportation, medical treatment, environmental sustainability mitigation, nutrition, education, and clean environment.

https://sdgs.un.org/goals

https://www.cdc.gov/climateandhealth/effects/default.htm
Appendix D  
List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARB</td>
<td>California Air Resources Board</td>
</tr>
<tr>
<td>CDP</td>
<td>Carbon Disclosure Project (formerly)</td>
</tr>
<tr>
<td>CEQA</td>
<td>California Environmental Quality Act</td>
</tr>
<tr>
<td>CO\textsubscript{2}</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>CO\textsubscript{2}e</td>
<td>Carbon Dioxide Equivalent</td>
</tr>
<tr>
<td>EAPR</td>
<td>Energy Assistance Program Rate</td>
</tr>
<tr>
<td>EJ</td>
<td>Environmental Justice</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>EPRI</td>
<td>Electric Power Research Institute</td>
</tr>
<tr>
<td>ESPP</td>
<td>Environmentally Sustainable Purchasing Program</td>
</tr>
<tr>
<td>EUISSCA</td>
<td>Electric Utility Industry Sustainable Supply Chain Alliance</td>
</tr>
<tr>
<td>EVs</td>
<td>Electric Vehicles</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse Gas</td>
</tr>
<tr>
<td>GWh</td>
<td>Gigawatt Hour</td>
</tr>
<tr>
<td>HDRD</td>
<td>Hydrogenation Derived Renewable Diesel</td>
</tr>
<tr>
<td>IRP</td>
<td>Integrated Resource Plan</td>
</tr>
<tr>
<td>JPA</td>
<td>Joint Power Authority</td>
</tr>
<tr>
<td>MT</td>
<td>Metric Tons</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
<tr>
<td>NOV</td>
<td>Notice of Violation</td>
</tr>
<tr>
<td>PUC</td>
<td>Public Utility Commission</td>
</tr>
<tr>
<td>SD</td>
<td>Strategic Direction</td>
</tr>
<tr>
<td>SEPA</td>
<td>Smart Electric Power Alliance</td>
</tr>
<tr>
<td>SF\textsubscript{6}</td>
<td>Sulfur Hexafluoride</td>
</tr>
<tr>
<td>SMUD</td>
<td>Sacramento Municipal Utility District</td>
</tr>
<tr>
<td>STF</td>
<td>Sacramento Tree Foundation</td>
</tr>
<tr>
<td>TCR</td>
<td>The Climate Registry</td>
</tr>
<tr>
<td>WIP</td>
<td>Workflow Integration Program</td>
</tr>
<tr>
<td>WMP</td>
<td>Wildfire Mitigation Plan</td>
</tr>
</tbody>
</table>
RESOLUTION NO. ______________

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

This Board accepts the monitoring report for Strategic Direction SD-7, Environmental Leadership, substantially in the form set forth in Attachment ____

hereto and made a part hereof.
### BOARD AGENDA ITEM

**STAFFING SUMMARY SHEET**

**BOARD AGENDA ITEM**

**ERCS - 10/19/22**

**Board Meeting Date**

**October 20, 2022**

<table>
<thead>
<tr>
<th>TO</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Claire Rogers</td>
<td>7. Suresh Kotha</td>
</tr>
<tr>
<td>3. Scott Martin</td>
<td></td>
</tr>
<tr>
<td>4. Frankie McDermott</td>
<td>9. Legal</td>
</tr>
<tr>
<td>5. Brandy Bolden</td>
<td>10. CEO &amp; General Manager</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consent Calendar</th>
<th>X</th>
<th>Yes</th>
<th>No</th>
<th>If no, schedule a dry run presentation.</th>
<th>Budgeted</th>
<th>X</th>
<th>Yes</th>
<th>No</th>
<th>If no, explain in Cost/Budgeted section.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM (IPR)</td>
<td>Sara Elsevie</td>
<td>DEPARTMENT</td>
<td>Resource Strategy</td>
<td>MAIL STOP</td>
<td>B205</td>
<td>5056</td>
<td>DATE SENT</td>
<td>09/21/2022</td>
<td></td>
</tr>
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**NARRATIVE:**

**Requested Action:** Accept the monitoring report for **Strategic Direction SD-9, Resource Planning**.

**Summary:** Annual SD-9 Resource Planning Monitoring Report for achievements in 2021.

**Board Policy:**

- Meets annual monitoring requirement for SD-9 (Resource Planning) providing SMUD’s progress towards key resource planning objectives including progress towards our goals focused on greenhouse gas reduction, renewable portfolio standard (RPS), energy efficiency (EE), building electrification (EB), transportation electrification (TE), equitable offerings for underserved communities, and support of clean distributed energy resources through programs.

**Benefits:** Provide a status report of 2021 achievements to the Board members on meeting our core resource planning objectives contained in Strategic Direction SD-9, Resource Planning.

**Cost/Budgeted:** N/A

**Alternatives:** N/A


**Coordination:** Resource Strategy

**Presenter:** Bryan Swann, Director, Resource Strategy

**Additional Links:**

**SUBJECT**

Annual SD-9 Resource Planning Monitoring Report

**ITEM NO. (FOR LEGAL USE ONLY):** 18

**ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.**
TO: Board of Directors  DATE: October 5, 2022
FROM: Claire Rogers  CR101522

SUBJECT: Audit Report No. 28007432
Board Monitoring Report; SD-9: Resource Planning

Audit and Quality Services (AQS) received the SD-9 Resource Planning 2022 Annual Board Monitoring Report and performed the following:

- A review of the information presented in the report to determine the possible existence of material misstatements;
- Interviews with report contributors and verification of the methodology used to prepare the monitoring report; and
- Validation of the reasonableness of a selection of the report’s statements and assertions.

During the review, nothing came to AQS’ attention that would suggest the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:
Paul Lau
1. **Background**

It is a core value of SMUD to provide its customers and community with a sustainable power supply using an integrated resource planning process.

A sustainable power supply is one that reduces SMUD’s greenhouse gas (GHG) emissions to serve retail customer load to zero by 2030. Zero GHG emissions will be achieved through investments in energy efficiency, clean distributed energy resources, renewables portfolio standard (RPS) eligible renewables, energy storage, large hydroelectric generation, clean and emissions free fuels, and new technologies and business models. Additionally, SMUD will continue pursuing GHG savings through vehicle, building and equipment electrification. SMUD shall assure reliability of the system, minimize environmental impacts on land, habitat, water and air quality, and maintain competitive rates relative to other California electricity providers.

To guide SMUD in its resource evaluation and investment, the Board sets the following energy supply goal:

<table>
<thead>
<tr>
<th>Year</th>
<th>Greenhouse Gas Emissions (metric tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>2,318,000</td>
</tr>
<tr>
<td>2030 - beyond</td>
<td>0</td>
</tr>
</tbody>
</table>

In keeping with this policy, SMUD shall also achieve the following:

a) Pursue energy efficiency and electrification to reduce carbon emissions by 365,000 metric tons from buildings and 1,000,000 metric tons from transportation in 2030 (the equivalent of 112,000 single family homes and 288,000 passenger vehicles electrified).

b) Procure renewable resources to meet or exceed the state’s mandate of 33% of SMUD’s retail sales by 2020, 44% by 2024, 52% by 2027, and 60% of its retail sales by 2030 and thereafter, excluding additional renewable energy acquired for certain customer programs.

c) In meeting GHG reduction goals, SMUD shall:
   1. Emphasize local and regional benefits.
   2. Improve equity for under-served communities.

d) Explore, develop, and demonstrate emerging GHG-free technologies and business models.

e) Promote cost effective, clean distributed generation through SMUD programs.

2. **Executive Summary**

SMUD’s integrated resource planning process informs long-term strategic development by the various business units within SMUD, and efforts are made to balance reliability, sustainability, environmental, financial, and customer objectives while achieving SD-9 goals. In 2020, SMUD’s Board adopted a Climate Emergency Resolution that calls on the Board to work towards carbon neutrality by 2030.

In 2021, the Board revised our SD-9 targets and put us on a path to eliminate GHGs from our power supply by 2030. Also, in April 2021, SMUD’s Board approved our 2030 Zero Carbon Plan, our roadmap to eliminating GHGs from our electricity supply by 2030. Taken together, our progress will be measured against this plan with the objective of eliminating GHG emissions from our power plants as we develop new distributed energy resource business models, research emerging grid-scale carbon-free technologies, and expand our investments in proven clean technologies.
In 2021, our emissions were 2.425 million metric tons (MMt). Normalized GHG emissions, which represent our emissions under a typical weather year, were 1.845 MMt. We also met our 2021 RPS target of 35.75% renewables in 2021. As this report demonstrates, in 2021, SMUD was in compliance with each of the goals for the year established in SD-9.

3. Additional Supporting Information

A. Implementation of our 2030 Zero Carbon Plan

Our 2030 Zero Carbon Plan is our road map to eliminating GHGs from our electricity supply by 2030 while maintaining reliable and affordable service and partnering with our customers, communities, and a wide range of stakeholders on this journey. This plan calls for eliminating GHGs from our power plants and expanding our investments in proven clean technologies. Below is a discussion of our current carbon footprint as well as an update on the near-term actions we’re taking in support of our SD-9 goals and our 2030 Zero Carbon Plan; for more detailed project information see Appendix C – Detailed Project Descriptions.

As shown in Table 1, SMUD’s GHG footprint in 2021, adjusted for weather and hydro conditions, was 1.845 MMt, which is on trajectory to our 2030 Zero Carbon goal. SMUD’s main sources of GHG emissions were from SMUD’s thermal power plants and market purchases.

Table 1: 2021 SD-9 Carbon Footprint & Near-term Targets

<table>
<thead>
<tr>
<th>Source</th>
<th>Net Power (GWh)</th>
<th>CO2e Emissions (1000 t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Generation and Power Purchases</td>
<td>11,882</td>
<td>2,663</td>
</tr>
<tr>
<td>Wholesale</td>
<td>(983)</td>
<td>(238)</td>
</tr>
<tr>
<td><strong>SMUD Electric Sales, SMUD Usage and System Losses Non-Normalized Total</strong></td>
<td><strong>10,899</strong></td>
<td><strong>2,425</strong></td>
</tr>
<tr>
<td>Adjustment for Normal Load</td>
<td></td>
<td>(122)</td>
</tr>
<tr>
<td>Adjustment for Normal Wind and Hydro</td>
<td></td>
<td>(304)</td>
</tr>
<tr>
<td>REC Banking Adjustment</td>
<td></td>
<td>(154)</td>
</tr>
<tr>
<td><strong>SMUD Normalized Total (estimate)</strong></td>
<td></td>
<td><strong>1,845</strong></td>
</tr>
<tr>
<td><strong>2030 Target</strong></td>
<td></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

Expanding our Sustainable Power Supply; Local and Regional Benefits

We’re focused on reimagining our generation portfolio through retirement or retooling of 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 the health of ecosystems that support us all.

Proven Clean Technologies and Zero Emission Resource Development

We continue to add and plan new proven clean technologies, such as wind, geothermal, solar, and energy storage that will continue to reduce our GHG emissions, tracking with our 2030 Zero Carbon Plan. Staff continue to conduct procurement efforts, cultivate new resource development, and implement new ideas. In 2021, we added over 160 MW of renewables and have over 1,000 MW of new renewables and storage in the pipeline for development to serve our customers due online in the

---

1 Based on SMUD’s internal accounting and represent best estimates available. The thermal power plant emissions, SMUD’s largest source of emissions, have been independently verified. Biogenic emissions are excluded as they are part of the natural carbon cycle.

2 Emissions by individual thermal asset can be found in the 2021 SD-7 Report.
coming years. And in late 2021, SMUD released a request for developer proposals for solar plus battery projects in the northern portion of our service territory.

Although our goals are more ambitious than already aggressive state mandates, we continue to implement a renewable energy strategy that fulfills state RPS requirements. SMUD achieved our 2021 RPS target by serving 35.75% of retail sales with renewables and are on path to achieving the next RPS statutory requirement of 44% RPS in 2024.

We continue to be a leader in the nation by offering our customers voluntary renewable program choices. Last year SMUD delivered 949 GWh, 9.1% of retail sales, to customers participating in Greenergy and SolarShares. Our Greenergy program served more than 72,000 residential and commercial participants equal to 632 GWh and our Large Commercial SolarShares program met program expectations, delivering 317 GWh of renewable power to these customers. Our Neighborhood SolarShares program, approved by the CEC in early 2020, will be served from solar resources within SMUD’s service territory. The first of those resources, Wildflower (13 MW), came online in December 2020. In 2021, 120 homes were completed by builders and started billing under the Neighborhood SolarShares program. The program delivered 64 MWh of local solar power to participating customers in 2021.

New Technology and Business Models

Using proven clean technology, we expect to be able to reduce our 2030 emissions by 90% without compromising reliability or our low rates. To eliminate the last 10%, we’ll need to explore, develop, and demonstrate new technologies. As part of our 2030 Zero Carbon Plan, we are on track with our year one implementation priorities in this area.

- Perform information technology system upgrades to enable DERs and VPPs – this work is ongoing, anticipated initial implementation to be completed in 2022.
- Work to integrate DERs in operations, distribution and the grid planning process is ongoing and will evolve based on our experience with our new load flexibility pilots.
- Support our load flexibility efforts by launching new pilots, including the storage virtual power plant, and expanding our EV managed charging and vehicle-to-grid demonstrations.

We continue to fund research and development efforts and to look for grants for clean energy and GHG reduction projects. Finally, recognizing the importance of equity, we will continue to prioritize under-resourced communities to help reduce the energy cost burdens of our low-income customers while ensuring equity in our program offerings.

Improving Equity for Under-Resourced Communities

SMUD’s GHG reduction actions help reduce climate change, but our work is about more than that. We are staying true to our roots— as a community-owned organization, implementation of our 2030 Zero Carbon Plan will deliver wide-reaching benefits to our community, including expanded workforce development program offerings, while focusing on equity and strengthening our communities—one SMUD, one Sacramento. In 2021, SMUD began developing a Community Impact Strategy. This 2030 Zero Carbon Plan aligned stakeholder-informed strategy, to be completed in 2022, will underline our commitment to making meaningful investments in under-resourced communities to ensure their participation in a clean energy future. Thus far, strategy development has included community listening sessions and stakeholder feedback, detailed gap analysis of who we are serving, and identification of barriers to participation across customer segments.

Through a collaborative, community-based approach, SMUD identifies emerging zero carbon energy and electrification related jobs and skills and partners with community organizations and education entities to create training programs to position participants from under resourced communities to fill the projected need for workers in the clean energy industry and other emerging high wage careers.
SMUD has partnered with GRID Alternatives to provide job readiness and technical training to almost 100 community participants to prepare them for careers in the clean mobility sector.

**Energy Efficiency and Building and Vehicle Electrification**

Our building energy efficiency portfolio includes offerings for residential retailer incentives, residential customer rebates, commercial builder incentives, and commercial customer rebates. The building electrification portfolio includes offerings for gas-to-electric conversions of water heating equipment, space heating equipment, and cooktops delivered through residential new construction, whole house retrofits, and prescriptive equipment rebates. In 2021, our energy efficiency and building electrification programs reduced emissions by 53,388 tCO2 [Civic Carbon], equivalent to 6,817 additional all-electric homes. Our goal is to have these building electrification and efficiency programs reduce emissions by 365,000 t in 2030, the equivalent of electrifying 112,000 single family homes.

SMUD’s vehicle electrification portfolio includes offerings in residential electric vehicle (EV) incentives, dealership incentives, residential outreach, commercial charger incentives, and commercial vehicle incentives. At the end of 2021, we had 23,576 EVs registered within SMUD’s service territory, an increase of 5,599 registered vehicles and an estimated annual reduction of almost 26,000 t. 21,218 are residentially registered EVs. Our goal is to have these vehicle electrification programs reduce transportation emissions by 1,000,000 t in 2030, the equivalent of electrifying 288,000 vehicles.

**B. Promote Cost Effective Clean Distributed Generation and Storage**

SD-9 requires that SMUD develop programs to promote cost effective, clean distributed generation. The following describes progress in 2021 and alignment with our 2030 Zero Carbon Plan.

**Flexible Demand**

Our flexible demand programs seek to optimize operation of our customer-partner’s equipment and distributed energy resources while balancing customer-partner and grid needs as well as compensating customers for the energy they supply into SMUD’s grid for use by other customers. In 2021, we awarded a program implementation contract for the residential My Energy Optimizer – Partner level offerings for smart thermostats and battery storage systems. Set to be launched in Summer 2022, this program is the first of SMUD’s Virtual Power Plant initiatives, which includes a Critical Peak Pricing rate offering. Other planned initiatives for 2022 include launching the residential Managed EV charging pilot and the My Energy Optimizer – Partner+ program for battery storage (storage virtual power plant as mentioned above).

With our PowerDirect® program, commercial customers were notified ten times to curtail load; average load reduction of 4.29 MW to 8.54 MW across the duration of the events. Under our temperature dependent rates, two commercial customers were notified five times during the summer, 6.28 to 14.38 MW of load reduction was realized. Finally, our air conditioning load management program called Peak Corps, provides about 59 MW of resource adequacy capacity and remains an operational

---

3 The DER Cost Effectiveness Tool evaluates and accounts for DER program effectiveness, calculating gross annual emissions impact. It is reported in each year the “measure” is installed on the grid and within its useful life.

4 EPRI Vehicles in Operation (VIO) report

5 IBID.

6 NERC WebDADs report

7 NERC WebDADs report
resource to be used in case of an emergency. All together, our dispatchable programs provide an expected load shed range of 53.5 to 77.5 MW; our non-dispatchable programs provide between 0 and 15.5 MW of expected load shed.

As part of our load flexibility programs, we offer time-of-day rates, which give majority of our customers more time on the lower priced non-summer seasonal rate. A new optional residential Critical Peak Pricing rate was approved for implementation in early 2021. This rate is applicable to qualifying load flexibility programs that are being offered to support the 2030 Zero Carbon Plan, such as the My Energy Optimizer Partner offering mentioned above.

As part of our 2030 Zero Carbon Plan, pilot programs aimed at flexible energy use will allow customers to reduce their energy usage and bills at times when grid stress is the highest.

**Clean Distributed Generation and Storage**

In 2021, we had almost 40,000 total customer-sited PV installations in SMUD's service territory and over 500 total customer-sited storage installations. During the year, 26 MW of customer sited solar PV was installed (about 5,500 systems) and almost 3.5 MW of commercial (about 170 systems). Additionally, 1.62 MW of residential customer-sited energy storage projects were installed or in progress, about 250 systems; 1 commercial system was installed (0.01 MW). In addition, SMUD's first utility-scale battery storage system, a 4 MW lithium-ion battery connected to our distribution system, became operational.

4. **Challenges**

There were no notable challenges to meeting the goals in SD-9.

5. **Recommendation**

It is recommended that the Board accept the Monitoring Report for SD-9.
Appendix A – SD-9 History

SD-9 was established by SMUD’s Board in 2004 and provides direction for SMUD’s ongoing environmental leadership and the use of an IRP process to achieve these directives while balancing environmental goals with financial and customer rate impacts and reliability requirements. SMUD’s strategic directions have evolved as markets, policies and laws have changed.

In December 2008, the Board added sustainable power supply as the overall objective of the integrated resource planning process and set a GHG emissions target. In 2018 the Board updated our greenhouse gas reduction goals to include a 2040 Net Zero GHG goal. In 2020, the Board amended SD-9 to adopt carbon-based targets for energy efficiency and building electrification. This change represents the first time a major utility has used carbon as its efficiency tracking metric and was done to better align our energy efficiency and electrification programs as well as to align both of those programs with our evolving energy supply picture.

In April 2021, the Board adopted Resolution No. 21-04-04 which updated the SD-9 direction to align with our 2030 goal of 0 t GHG emissions in our energy supply by 2030, as put forth in our 2030 Zero Carbon Plan. SMUD has embarked on a path to zero carbon by 2030, focusing on zero carbon resource acquisition and new renewable energy contracts, expanding on customer programs for energy efficiency and building and transportation electrification, developing new voluntary customer programs, and researching emerging clean energy technology. Under SD-9, SMUD’s goal, the reduction of GHG emissions for serving retail load from its current state to zero carbon by 2030, is more aggressive than California’s SB 100 trajectory, which requires that utilities meet electric demand with at least 60 percent eligible renewable resources by 2030.

Appendix B – Methodology Discussion

Normalization Adjustments

Emissions adjustments to SMUD’s actual GHG footprint include a decrease to account for higher-than-expected energy usage by SMUD customers, a decrease to account for lower-than-expected hydro production, an increase to account for higher-than-expected wind production and a decrease for using banked renewable energy credits (RECs). In 2021, SMUD strategically utilized banked RECs to achieve RPS mandates as additional large renewable projects are developed. In previous years, SMUD procured more renewable energy than required and received credits for future use. These credits were saved or banked in accordance with RPS rules, which increased our normalized SD-9 emissions in those years to account for these banked RECs. Using these banked RECs lowers SMUD’s normalized emissions because any emissions impacts were realized at an earlier date, but not yet credited to SMUD. As SMUD utilizes its remaining REC surplus over the next few years and renewable procurement ramps up to meet the 2030 Zero Carbon Plan goals, which are expected to far exceed RPS obligations, SMUD plans to phase out REC normalization.

In 2021, a historic drought affected much of the Western United States, which resulted in lower hydropower generation across California and the Pacific Northwest (PNW). In previous years, short-term carbon-free power purchases from the PNW have greatly contributed to SMUD being below our SD-9 carbon goal the last several years, but we understood that our ability to take advantage of these resources was highly dependent upon water conditions in the PNW and thus availability. Due to these widespread drought conditions in 2021, which resulted in the reduced availability of low carbon and carbon-free resources from the PNW, SMUD was not able to purchase at the same level as previous years, which contributed to emissions increases relative to 2020.
Renewables Portfolio Standard (RPS)

State RPS law requires SMUD procure renewable generation of at least 60% of retail sales by 2030 as well as interim targets be achieved over several compliance periods. In 2021, we achieved our, and the State’s, RPS target of 35.75% with 3,485 GWh of eligible renewable energy.

Appendix C – Detailed Project Descriptions

Sustainable Communities

Implementation of our 2030 Zero Carbon Plan will deliver wide-reaching benefits to our community while focusing on equity and strengthening our communities.

- **Transportation Electrification.** SMUD is dedicated to partnering with the community to expand eMobility Hubs throughout our region, which will be strategically located at sites in under-resourced communities. These Hubs will include various modes of transportation such as public transit, micro mobility, shared mobility, ride-hail, taxi services, community electric vehicles, public EV charging stations, etc. Additionally, EV programs will be expanded to assist customers that own or lease an electric vehicle to charge at home by providing low cost or free EV charging infrastructure for income eligible customers and expertise on home charging solutions. We also offer incentives to expand EV charging infrastructure at public locations, multifamily properties and affordable housing sites.

- **Load Flexibility.** SMUD will work to ensure that all customers can participate in the portfolio of load flexibility pilots launching in 2021 and 2022. These pilots will help achieve our 2030 zero carbon goal, yet they can sometimes require costly technology like a smart thermostat, electric vehicle, or battery storage system to participate. SMUD will continue to explore ways in which our load flexibility pilots can be more inclusive despite this barrier. Possible examples include integrating load flexibility program enrollment into our existing low-income weatherization program, which already provides a no-cost smart thermostat in most cases and/or creating a no-cost technology installation pathway for low-income homeowners or renters to participate in our virtual power plant program with their heating/cooling system.

- **Building Electrification and Energy Efficiency.** To support SMUD’s equity efforts as part of the 2030 Zero Carbon Plan, SMUD will continue expansion of its existing efforts to provide no-cost energy retrofit installations to income eligible residential customers for both gas-to-electric conversions and electric-to-electric upgrades. Available project measures include electric heat pump water heaters, electric heat pump HVAC units, seal and insulate projects, and panel upgrades. In addition, SMUD will continue to provide a low-income incentive premium for projects within SMUD’s Multifamily retrofit program that meet affordable housing criteria.

Our Sustainable Communities Workforce Development efforts partner with organizations to reach into our community to understand the challenges that residents face in pursuing good-paying careers. SMUD trained over 800 people in a variety of skills to help them find higher paying, more secure jobs. At the same time, we renewed our focus on the jobs and skills that will help our community get to zero carbon.

As part of that effort, SMUD completed the first year of its inaugural Energy Careers Pathways training partnership with Grid Alternatives. The solar workforce program recruited individuals from under resourced communities and provided them four weeks of paid instruction; two weeks of online learning and two weeks of in-person instruction in a hands-on format. Upon graduation, participants

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8 Senate Bill 100 (De León, Chapter 312, Statutes of 2018) increased RPS targets to 44% by the end of 2024, 52% by the end of 2027, 60% by the end of 2030 and sets a statewide retail sales goal of 100% RPS eligible and zero-carbon resources by 2045.
were matched with potential employers to demonstrate what they have learned by showcasing conduit bending, wired J-boxes, and more. Students also learned about the installation and importance of battery storage and EV charging infrastructure. The program closed the year with a total of 196 program applicants, 93 participants completing the initial 2-week online training, 52 participants completing the subsequent 2-week in-person training, and 28 job placements.

Additionally, to deploy comprehensive resources for our communities most in need, we must align our region’s investments toward the goal of creating and supporting healthy, vibrant, and economically sustainable neighborhoods. We have several data collection and visualization tools aimed at matching areas of inequity within the Sacramento region with future investment; we’re working to address potential inequities in the way we do business. These include our Sustainable Communities Resource Priorities Map, which we used as part of our 2030 Zero Carbon Plan work in 2021 to identify thermal power plants in high/moderately high sensitivity areas that should be targeted for emissions reductions and our internal Sustainable Communities Dashboard. This dashboard tracks funding and links partners and projects across six key focus areas – Institutional Support and Outreach, Education, Health Equity, Environmental Leadership, Economic Development, and Transportation and Access. These metrics coupled with expanded access to equitable workforce pipeline and business creation, will serve to validate investments across focus areas.

**Proven Clean Technology Projects**

Table 2 details new proven clean technology procurement activities.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Type</th>
<th>MW</th>
<th>Status</th>
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<tr>
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<td>Online</td>
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</tr>
<tr>
<td>Chili Bar</td>
<td>Small Hydro</td>
<td>7</td>
<td>Online</td>
<td>2021</td>
</tr>
<tr>
<td>Hedge Battery</td>
<td>Battery</td>
<td>4</td>
<td>Online</td>
<td>2022</td>
</tr>
<tr>
<td>NTUA Drew Solar</td>
<td>PV</td>
<td>100</td>
<td>Under Construction</td>
<td>2022</td>
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<tr>
<td>Northern California Geothermal</td>
<td>Geothermal</td>
<td>100</td>
<td>Procured</td>
<td>2023</td>
</tr>
<tr>
<td>Coyote Creek</td>
<td>PV</td>
<td>200</td>
<td>Planning</td>
<td>2024</td>
</tr>
<tr>
<td></td>
<td>Battery</td>
<td>100</td>
<td>Planning</td>
<td>2024</td>
</tr>
<tr>
<td>Slough House</td>
<td>PV</td>
<td>50</td>
<td>Planning</td>
<td>2023</td>
</tr>
<tr>
<td>Country Acres</td>
<td>PV</td>
<td>340</td>
<td>Planning</td>
<td>2024</td>
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<tr>
<td></td>
<td>Battery</td>
<td>170</td>
<td>Planning</td>
<td>2024</td>
</tr>
<tr>
<td>Solano 4</td>
<td>Wind</td>
<td>86</td>
<td>Pre-Construction</td>
<td>2024</td>
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<td><strong>Total</strong></td>
<td></td>
<td>1,000+</td>
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<td></td>
</tr>
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</table>

Additionally, in the near-term, we are exploring options to procure or develop additional zero emission resources, including local solar and storage, to help achieve our 2030 Zero Carbon Plan.

**Energy Efficiency Programs**

In 2021, accomplishments for SMUD’s residential new construction program include 298 newly built all-electric homes and installed 781 gas-to-electric heat pump water heaters in existing homes, 1,392 gas-to-electric HVAC systems in existing homes, and 133 gas-to-electric induction cooktops in existing homes.

Below, in Table 3, is a summary of some of our 2021 energy efficiency and building electrification accomplishments, including offerings for our income eligible customers.
### Table 3: 2021 Energy Efficiency and Building Electrification Accomplishments

<table>
<thead>
<tr>
<th>Measures &amp; Projects</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Projects Completed Complete Energy Solutions</td>
<td>60</td>
</tr>
<tr>
<td>Commercial Projects Through Express Energy Solutions</td>
<td>681</td>
</tr>
<tr>
<td>Custom Commercial Projects Completed</td>
<td>59</td>
</tr>
<tr>
<td>New Efficient Commercial Buildings Constructed</td>
<td>21</td>
</tr>
<tr>
<td>Multifamily Apartments Retrofitted (Electric To Electric)</td>
<td>136</td>
</tr>
<tr>
<td>Multifamily Apartments Retrofitted (Gas To Electric)</td>
<td>79</td>
</tr>
<tr>
<td>Efficient Induction Cooktops (Electric To Electric)</td>
<td>157</td>
</tr>
<tr>
<td>Efficient Induction Cooktops (Gas To Electric)</td>
<td>133</td>
</tr>
<tr>
<td>Energy Star Products Purchased through RPP Retailers</td>
<td>35,830</td>
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<tr>
<td>Advanced Power Strips Installed</td>
<td>1,936</td>
</tr>
<tr>
<td>Old Refrigerators Recycled</td>
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</tr>
<tr>
<td>Residential Heat Pump Water Heaters Installed (Electric To Electric)</td>
<td>4</td>
</tr>
<tr>
<td>Residential Heat Pump Water Heaters Installed (Gas To Electric)</td>
<td>781</td>
</tr>
<tr>
<td>Residential HVAC Installations (Gas To Electric)</td>
<td>1,392</td>
</tr>
<tr>
<td>Residential Seal and Insulate Installations</td>
<td>427</td>
</tr>
<tr>
<td>All Electric New Homes Constructed</td>
<td>298</td>
</tr>
</tbody>
</table>

**Income Eligible Energy Efficiency Bundles and Electrification**

<table>
<thead>
<tr>
<th>Measures &amp; Projects</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Efficiency Weatherization</td>
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<tr>
<td>Heat Pump Space Heating (Gas to Electric)</td>
<td>178</td>
</tr>
<tr>
<td>Heat Pump Water Heaters (Gas to Electric)</td>
<td>98</td>
</tr>
<tr>
<td>Induction Stoves (Gas to Electric)</td>
<td>19</td>
</tr>
</tbody>
</table>

**Vehicle Electrification**

The California Mobility Center applied for and received IRS tax exempt 501(c)(3) status in 2021. After securing a lease for its initial 25,000 square foot manufacturing and prototyping facility at Depot Park, CMC procured its initial baseline equipment and was commissioned in Q1 2021. The facility, called Ramp-Up-Factory (RUF) is operational with training suite installed. 15 service provider contracts were executed with additional consultants and strategic partners that continue to support the CMC and CMC clients.

In 2021, CMC expanded the Board from a Founders group of five to a broad-based Board of 16, with strong automotive sector representation. CMC developed its online, recruitment management tool to expand its membership campaign. By year-end, CMC reached a total of 39 members, with 98 representatives registered in the online portal. Additionally, CMC launched various membership committees, the Industry Advisory Council and a monthly CMC Thought Leadership webinar series.

CMC designed and developed materials for the organization’s marketing and public relations initiatives; continually updated its rebranded website ([www.californiamobilitycenter.org](http://www.californiamobilitycenter.org)); and wrote/distributed eight press releases in 2021, reaching over 15,000 media industry views. Additionally, CMC appeared in over 213 industry and news articles and sponsored twelve industry events held in the US and internationally.

Lastly, the CMC workforce program has provided training in partnership with community-based organizations, adult learning centers and CSU Sacramento. The Workforce Pathways Partnerships
Program started in 2020 with a $1.4 million CARES Act grant from the City of Sacramento. In 2021, CMC received a $600,000 grant from California Workforce Development Board to advance jobs and training associated with the climate and technology impacted industries. CMC was able to assist 115 people in securing internships or employment through the Workforce Pathways Partnerships Program.

SMUD team members also collaborate broadly through the Sacramento PEV Collaborative, which includes the County of Sacramento, the City of Sacramento, Sacramento Metropolitan Air Quality Management District (SMAQMD), Sacramento Area Council of Governments (SACOG), State of California agencies, UC Davis Institute of Transportation Studies, Electrify America, Sac EV and many others.

In 2021, SMUD’s Drive Electric program continued to promote adoption of plug-in electric vehicles (PEV) through a special EV rate offering, launch of our “Charge@Home” residential EV charger purchase and circuit installation rebate in December, and participation in educational events, educational offerings through our website http://www.SMUD.org/DriveElectric and in collaboration with local auto dealers and Sac EV. At the end of 2021, 12,176 customers, approx. 60% of Residential EV households, participated in the EV rate credit (midnight to 6 AM EV charging discount). Moreover, through SMUD’s funding of the statewide California Clean Fuel Reward program SMUD customers received 4,790 point of sale rebates on the purchase or lease of a new EV.

Due to COVID restrictions, in lieu of in-person events, staff produced a virtual ride & drive video to expand capabilities and reach. The video, designed for customers, is “experiential” and to the extent possible educates viewers on many “EV lifestyle” elements. The video received over 17,000 views between its August 2021 launch and the end of the year.

Other 2021 activities included:

- SMUD Commercial EV Program and partnership with California Electric Vehicle Infrastructure Project (CALeVIP) incentives included 242 Level 2 handles, 58 DC Fast Chargers and 26 vehicles incentivized. SMUD partnered with the California Energy Commission and the Center for Sustainable Energy on the California Electric Vehicle Infrastructure Project (CALeVIP) in Sacramento County to promote the installation of public level II and DC fast charging stations. The program stopped taking applications for new projects in October 2021, but installations will continue into 2022 and 2023. The partnership was the first of its kind in the state and is being used as a model for projects in other areas of California.

- Continued live online dealer EV sales training webinars as well as on-demand online training, in response to COVID, as an additional resource to enhance dealer certification as PlugStar certified dealers. Twenty-two dealers are participating in the program.

- Increased exposure to and participation in our “EV Concierge” service for SMUD customers through Plug in America’s Electric Vehicle Support Program, which offers live one-on-one support answering questions on all things EV.

- Implemented our second EV auto dealership competition to encourage and incentivize EV sales and reward dealerships and their staff for increased EV promotion.

- Continued integral support of the Clean Cars for All program in conjunction with SMAQMD. This program provides up to $9,500 toward a new or used PEV for income-qualified residents living in areas impacted by higher levels of pollution (disadvantaged communities). Through this partnership, SMUD has provided a free installation of a home EV Charger for customers that participated in Clean Cars for All; we installed 131 in 2021.

- Facilitated the third Charge Up Change! EV video competition in which middle school students produce a video on why “EVs are cool” and compete for monetary awards and other recognition.
**Time-of-Day (TOD) Rates**

Our residential customers reduced overall load in the range of 75-115 MW. In addition to avoiding peak energy prices, customers, on average, saved money using more energy in the middle of the day when retail energy prices are cheaper, and renewables are abundant. Participation in the program has remained strong with 97% of customers on TOD rates.

**Table 4: 2021 Results of TOD Implementation Compared to Pilot Projections**

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Pilot projections</th>
<th>2021 Normal Weather</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon reduction (metric tons)</td>
<td>3K-5K</td>
<td>11.45K</td>
</tr>
<tr>
<td>Residential peak load reduction</td>
<td>75MW, or 5.8%</td>
<td>~75MW – 115MW, or 4-7%</td>
</tr>
<tr>
<td>Financial benefit</td>
<td>$4M annually</td>
<td>$11M estimated⁹</td>
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<tr>
<td>Selection of TOD</td>
<td>96%</td>
<td>97%</td>
</tr>
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</table>

**Zero Emission Resources**

We are continuing to fund research and development efforts as well as pursue grants for clean energy and GHG reduction projects in 2021 and beyond as part of our 2030 Zero Carbon Plan. Below are just a few of the projects that we explored in 2021; more information on our research and development work can be found in our annual Strategic Direction 10 (SD-10) Report.

- **Carbon Reduction Projects for Zero Carbon Planning.** Completed high level techno-economic assessments of proven and emerging clean technology expansion opportunities (wind, on-shore and off-shore; solar PV; geothermal; biomass/biogas for RNG), long duration storage technologies, carbon capture, renewable hydrogen and gas pipeline analysis. Results of these assessments will be used as information in our continuous planning efforts for our 2030 Zero Carbon Plan.

- **Assessment of Alternative Clean Fuels.** Completed assessment of sustainability, existence of supply/suppliers, price forecasts, market trends, and the economic/technical feasibility of alternative biofuels such as ethanol, biodiesel, renewable diesel, propane, RNG, and green hydrogen. RNG and green hydrogen were short listed for further deep dive assessments and considerations to decarbonize our natural gas power plants.

- **Wind Resources in Northern CA.** Assessed all available wind generation resource potentials in Northern California that can feasibly deliver to SMUD or the Balancing Authority of Northern California.

- **Low-carbon Fuel Standard (LCFS) Electricity Pathways.** For Van Warmerdam and Van Steyn Dairy Digesters, completed the first annual re-calculation of carbon intensities (CIs) and annual report with recent performance data that were submitted to CARB. For New Hope Dairy Digester, completed the certification of New Hope Dairy Digester Electricity Pathway to charge EVs with CI score of -750.81 gCO2/MJ (CI Deemed Complete: 1/1/2021, CI Certified on 6/28/2021, CI Start Date: 1/1/2021)

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⁹ This calculation uses customer load adjusted for impacts of COVID 19.
Grant Funded Clean Energy Projects

- Hydrogen Blend Collaborative Research. Completed the literature review and technoeconomic analysis requirements for this pipeline hydrogen blending collaborative research. This project will address the barriers on pipeline materials compatibility & degradation related to the blending of hydrogen into natural gas pipelines, a concept referred to as HyBlend. SMUD will provide data and will serve as one of the sites or use cases for injection point of H2. Data that will be provided will be used for techno-economic analysis to quantify costs and opportunities of H2 production and blending with natural gas.

- BestFit Innovative Charging Solutions. SMUD will partner with Electriphi, the project lead applicant, in collaboration with other key partners to demonstrate a cost-efficient and grid-friendly pathway for fleet electrification across diverse vehicle types. This project will accelerate V2G, offsetting what would otherwise be costs to SMUD.

- Blueprint for Medium & Heavy-Duty Zero-Emission Vehicle Infrastructure. Grant-funded project by the CEC to create a landmark regional blueprint plan to accelerate adoption of medium and heavy-duty Zero Emission Vehicles in Sacramento and West Sacramento. The plan will identify locations for charging and hydrogen refueling stations that will optimize existing grid capabilities, reducing implementation and operational costs while accommodating the needs of communities. The project also assesses workforce development needs to implement the plan’s various elements and to ensure broad economic opportunity in the growing EV sector.

Distributed Generation Studies

- DER Carbon Tool. Completed the development and expansion of DER planning and modeling tool that assess carbon reduction/savings, budgeting, portfolio optimization, cost effectiveness and load forecasting for EE and building electrification, electric vehicles (EV), solar PV, battery storage and flexible load measures.

Climate Change and Ecosystem Service Research Projects undertaken in 2021

These projects provide technical, economic, and policy expertise on climate change and biodiversity, assisting operations in identifying and addressing climate vulnerabilities, and creating opportunities for SMUD, customers and community partners to support climate neutrality and ecologically regenerative projects with a net positive impact.

- Began executing our multi-year ecosystem service integration research at SMUD’s Rancho Seco II Solar project, including soil carbon monitoring, native seeding and hedgerows, grazing and pollinator field studies, with partners the Electric Power Research Institute (EPRI), UC Davis Wild Energy Lab and the Xerces Society. This research is expected to continue until Fall 2025.

- Began development of a new Agrivoltaic research program proposal for integration with future utility scale solar projects in support of regional food security.

- Continued executing American Public Power Association Demonstration of Energy and Efficiency Development (APPA-DEED) grant-funded field assessment and reporting on two new grocery store installations funded by our award-winning Natural Refrigerant Incentive Program, which are expected to deliver over 10,000 t CO2e reduction relative to conventional systems.

Voluntary Renewable Energy Programs

Greenergy is a voluntary green pricing program that gives customers the option to receive carbon free electricity generated in and delivered to California by paying a fixed monthly rate ($4 or $8) to match either 50% or 100% of their usage with renewable energy credits. When a customer enrolls in
Greenergy, their usage is tracked according to their enrollment level. SMUD uses the proceeds from this program to purchase renewable/carbon free power or renewable energy credits to supply participants from generators located within California. These purchases are in addition to our RPS requirements.

**Customer-side Solar and Storage Status**

In 2016, SMUD achieved our SB1 Program funding goals for residential and commercial solar installations. Currently, there are remaining SB1 funded solar projects still under development. Additionally, residential and commercial solar systems are being installed under our net-energy metering tariff. In 2021, nearly 30 MW of new customer solar was installed in SMUD service territory under net-energy metering agreements. Table 5 summarizes solar installation data through 2021 and Table 6 summarizes our cumulative customer storage installations through 2021.

### Table 5: Installed Customer PV

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed Systems</td>
<td>MW</td>
<td>Installed Systems</td>
<td>MW</td>
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<tr>
<td><strong>2021</strong></td>
<td>5,535</td>
<td>26.56</td>
<td>171</td>
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<tr>
<td><strong>Totals</strong></td>
<td>39,071</td>
<td>174.14</td>
<td>888</td>
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</table>

**Table 6: Cumulative Customer Storage Installations**

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial</th>
<th>Totals</th>
</tr>
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<tbody>
<tr>
<td>Installed Systems</td>
<td>MW</td>
<td>Installed Systems</td>
<td>MW</td>
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<tr>
<td><strong>2021</strong></td>
<td>246</td>
<td>1.62</td>
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<tr>
<td><strong>Totals</strong></td>
<td>504</td>
<td>3.35</td>
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</tbody>
</table>

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10 This table includes net-energy metering (NEM), Solar Smart, virtual net-energy metering (VNEM) installations, and projects funded with SB-1 dollars.
RESOLUTION NO. ______________

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

This Board accepts the monitoring report for Strategic Direction SD-9, Resource Planning, substantially in the form set forth in Attachment _____ hereto and made a part hereof.
SSS No.  
CFO 21-018

BOARD AGENDA ITEM  
STAFFING SUMMARY SHEET

Committee Meeting & Date

Board Meeting Date  
October 20, 2022

TO  
1. Jennifer Davidson  
2.  
3.  
4.  
5.  
6.  
7.  
8.  
9. Legal  
10. CEO & General Manager

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<tr>
<th>Consent Calendar</th>
<th>Yes</th>
<th>No</th>
<th>If no, schedule a dry run presentation.</th>
<th>Budgeted</th>
<th>Yes</th>
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<td>Lisa Limcaco</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8/2/22</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NARRATIVE:

Requested Action: Provide the Board with SMUD’s financial results for the year-to-date period in 2022.

Summary: Staff will present SMUD’s financial results for the year-to-date period in 2022, and a summary of SMUD’s current Power Supply Costs to the Board of Directors.

Board Policy: GP-3, Board Job Description

Benefits: Provides Board members with information regarding SMUD’s financial condition and SMUD’s current power supply costs.

Cost/Budgeted: N/A

Alternatives: N/A

Affected Parties: Accounting

Coordination: Accounting

Presenter: Lisa Limcaco, Controller & Director, Accounting

Additional Links:

SUBJECT  
SMUD’s 2022 Year-to-Date Financial Results & Power Supply Costs

ITEM NO. (FOR LEGAL USE ONLY)  
19

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.
TO: Distribution

FROM: Kathy Ketchum / Lisa Limcaco

SUBJECT: AUGUST 2022 FINANCIAL RESULTS AND OPERATIONS DATA

We are attaching the financial and operating reports for the eight months of 2022. They include sales and generation statistics and other selected data.

The change in net position is an increase of $134.6 million compared to a budgeted increase of $129.5 million, resulting in a favorable variance of $5.1 million.

We prepared these statements on the accrual basis of accounting, and they conform to generally accepted accounting principles. The bases for the budget amounts are:

1) Budgeted electric revenues are based on the Forecast of Revenues by the Pricing Department, adjusted for unbilled revenues; and

2) Budgeted operating expenses reflect the 2022 Budget approved by the Board of Directors on December 9, 2021.

<table>
<thead>
<tr>
<th>Month</th>
<th>2022 Year-To-Date</th>
<th>2022 Budget</th>
<th>2021 Year-To-Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>$9.7</td>
<td>$9.7</td>
<td>($6.0)</td>
</tr>
<tr>
<td>Feb</td>
<td>$1.1</td>
<td>$1.1</td>
<td>($40)</td>
</tr>
<tr>
<td>Mar</td>
<td>$10.0</td>
<td>$10.0</td>
<td>($60)</td>
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<tr>
<td>Apr</td>
<td>$17.5</td>
<td>$17.5</td>
<td>($134.6)</td>
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<tr>
<td>May</td>
<td>$75.2</td>
<td>$75.2</td>
<td>($116.2)</td>
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<tr>
<td>Jun</td>
<td>$116.2</td>
<td>$116.2</td>
<td>($75.2)</td>
</tr>
<tr>
<td>Jul</td>
<td>$134.6</td>
<td>$134.6</td>
<td>($75.2)</td>
</tr>
<tr>
<td>Aug</td>
<td>$134.6</td>
<td>$134.6</td>
<td>($75.2)</td>
</tr>
<tr>
<td>Sep</td>
<td>$134.6</td>
<td>$134.6</td>
<td>($75.2)</td>
</tr>
<tr>
<td>Oct</td>
<td>$134.6</td>
<td>$134.6</td>
<td>($75.2)</td>
</tr>
<tr>
<td>Nov</td>
<td>$134.6</td>
<td>$134.6</td>
<td>($75.2)</td>
</tr>
<tr>
<td>Dec</td>
<td>$134.6</td>
<td>$134.6</td>
<td>($75.2)</td>
</tr>
</tbody>
</table>
SACRAMENTO MUNICIPAL UTILITY DISTRICT
EXECUTIVE SUMMARY
For the Eight Months Ended August 31, 2022

Net Position
- The change in net position is an increase of $134.6 million compared to a budgeted increase of $129.5 million, resulting in a favorable variance of $5.1 million.

Revenues
- Revenues from sales to customers were $1,097.3 million, which was $50.2 million higher than planned.
  - The increase is primarily due to higher commercial customer revenues of $36.0 million, higher residential sales of $15.1 million, and lower provision for uncollectible accounts of $11.5 million, offset by a $13.3 million year-to-date adjustment of commercial customer revenues related to the 2021 estimated unbilled revenues.
- Revenues under the California Global Warming Solutions Act (Assembly Bill [AB] - 32) were $17.4 million. This is due to carbon allowances sold through the state sanctioned quarterly auctions.
- Low Carbon Fuel Standard (LCFS) revenues were $7.0 million, which was $5.5 million lower than planned due to a decrease in price per credit and the timing of credit sales.
- Non-cash revenues transferred to the rate stabilization fund were $24.4 million, of which $17.4 million was for AB-32 and $7.0 million was for LCFS. Funds are deferred until SMUD has qualified program expenses (projects that reduce carbon emissions or electric vehicle programs) to recognize revenue.
- Non-cash revenues transferred from the rate stabilization fund were $30.2 million, of which $25.1 million was for revenue recognized for the annual Hydro rate adjustment and $5.1 million was for revenues recognized from LCFS electric vehicle programs expenses.
- Other electric revenues were higher by $6.4 million primarily due to higher Procter & Gamble Power Plant steam sales, transmission revenue and interconnection fees offset by lower Greenenergy revenue.

Commodities, Purchased Power and Production
Overall, load was higher than planned. Both thermal and hydro generation were lower than planned due to Cosumnes Power Plant outage and precipitation levels, respectively. This resulted in lower fuel usage, decreased net price per MMBTU (due to increased fuel sales), and additional purchased power expense.
- SMUD’s generation was lower by 1,622 GWh (34.2 percent); JPA and other generation was lower by 1,268 GWh (34.1 percent); and Hydro generation was lower by 354 GWh (34.4 percent).
- Purchased power expense of $497.6 million, less surplus power sales of $101.0 million, was $396.6 million, which was $250.9 million higher than planned. Purchased power expense increased because of higher prices of $143.5 million and higher quantities purchased of $107.4 million due to the procuring of replacement power for the Cosumnes Power Plant (CPP) unplanned outage.
- Production operations cost of $245.2 million, less surplus gas sales of $141.7 million, was $103.5 million, which was $73.5 million lower than planned.
  - Fuel costs of $142.7 million, less surplus gas sales of $141.7 million, was $1.0 million, which was $94.4 million lower than planned. This is primarily due to lower fuel prices of $65.0 million and lower fuel usage of $29.4 million. Lower fuel usage is primarily due to the CPP unplanned outage. The lower price variance is due to surplus gas sales, natural gas hedging activities, and higher sales price per Renewable Identification Number (RIN), which resulted in sales of $2.7 million higher than planned.
  - Offset by higher carbon allowances of $6.2 million due to higher Calpine purchases due to lower hydro and thermal generation.
- The “power margin”, or sales to customers less cost of purchased power, production operations costs and gas hedges included in investment revenue was $618.0 million, which was $106.5 million lower than planned. The power margin as a percentage of sales to customers was 56.3 percent, which was 12.9 percent lower than planned. This is primarily due to the additional purchased power for the replacement power for the unplanned outage at CPP.

Other Operating Expenses
- All other operating expenses were $511.1 million, which was $79.7 million lower than planned.
  - Transmission and distribution operation expenses were higher by $4.7 million primarily due to higher TANC management expenses.
Customer accounts expenses were $5.1 million lower than planned primarily in Revenue Assurance due to vacancies and labor charged to projects.

Customer service and information expenses were $13.2 million lower than planned primarily due to lower than anticipated transportation electrification expenses due to a DOE grant not awarded for the Equity EV program, customer program expenses are lower due to supply chain issues and delays that affected customer participation, lower load management program expenses due to delayed launch of My Energy Optimizer, and lower Greenenergy Recs and Carbon Offsets.

Administrative and General expenses were down $4.1 million primarily due to lower labor in new business development and enterprise strategy and lower labor and outside services in market development.

Public good expenses were $4.9 million lower than planned primarily due to a delay in Storage and Generation Research Projects, research and development labor being charged to technology areas, lower than plan incentives in Energy Storage and EV’s, and overall fewer projects completed than planned.

Production maintenance expenses were $2.2 million lower than planned primarily due to lower hydro maintenance costs caused by deferring debris removal, inspection and cleaning of reservoir maintenance to 2023 and storm repairs completed earlier and at less cost than forecasted.

Transmission and distribution maintenance expenses were $4.4 million higher than planned. This is primarily due to higher service reconnect and repair expenses and underground line corrective maintenance caused by completing more work than planned for year-to-date, and higher station equipment preventative maintenance and onboarding/training of 13 new apprentices.

Negative non-cash amortization of pension and other post-employment benefits (OPEB) was $60.8 million lower than planned, which resulted in a positive impact to net position. This is due to Governmental Accounting Standards Board (GASB) 68 Pension and GASB 75 OPEB negative amortizations.

**Non-operating Revenues and Expenses**

Other revenue, net, was $26.2 million higher than planned primarily due to higher investment revenue of $20.7 million due to natural gas hedging activities, $3.2 million higher contributions in aid of construction due to differences between accounting treatment of offsets and amounts recorded for budget purposes, $2.8 million higher interest income, and $1.1 million due to a refund stemming from prior years purchased power expense related to the Simpson Biomass contract that ended in 2021.

Interest charges were $2.3 million lower than planned due to lower amortization on revenue bonds and lower commercial paper fees.
# SACRAMENTO MUNICIPAL UTILITY DISTRICT
## STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
### For the Month Ended August 31, 2022
(thousands of dollars)

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual</th>
<th>Budget</th>
<th>Over/Under</th>
<th>Percent of Increase/Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPERATING REVENUES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales to customers</td>
<td>$201,797</td>
<td>$188,558</td>
<td>$13,239</td>
<td>7.0%</td>
</tr>
<tr>
<td>Sales of surplus power</td>
<td>24,350</td>
<td>32,828</td>
<td>(8,478)</td>
<td>(25.8%)</td>
</tr>
<tr>
<td>Sales of surplus gas</td>
<td>23,911</td>
<td>-</td>
<td>23,911</td>
<td>*</td>
</tr>
<tr>
<td>SB-1 revenue (deferral)/recognition, net</td>
<td>15</td>
<td>-</td>
<td>15</td>
<td>*</td>
</tr>
<tr>
<td>AB32 revenue</td>
<td>5,400</td>
<td>-</td>
<td>5,400</td>
<td>*</td>
</tr>
<tr>
<td>LCFS revenue</td>
<td>1,575</td>
<td>1,477</td>
<td>98</td>
<td>6.6%</td>
</tr>
<tr>
<td>Other electric revenue</td>
<td>4,173</td>
<td>-</td>
<td>4,173</td>
<td>*</td>
</tr>
<tr>
<td>Revenue to rate stabilization fund</td>
<td>(6,975)</td>
<td>-</td>
<td>(6,975)</td>
<td>*</td>
</tr>
<tr>
<td>Revenue from rate stabilization fund</td>
<td>484</td>
<td>-</td>
<td>484</td>
<td>*</td>
</tr>
<tr>
<td>Total operating revenues</td>
<td>254,730</td>
<td>225,422</td>
<td>29,308</td>
<td>13.0%</td>
</tr>
<tr>
<td><strong>OPERATING EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchased power</td>
<td>145,340</td>
<td>47,621</td>
<td>97,719</td>
<td>205.2%</td>
</tr>
<tr>
<td>Production</td>
<td>25,742</td>
<td>30,699</td>
<td>(4,957)</td>
<td>(16.1%)</td>
</tr>
<tr>
<td>Transmission and distribution</td>
<td>8,771</td>
<td>8,300</td>
<td>471</td>
<td>5.7%</td>
</tr>
<tr>
<td>Customer accounts</td>
<td>5,043</td>
<td>5,396</td>
<td>(353)</td>
<td>(6.5%)</td>
</tr>
<tr>
<td>Customer service and information</td>
<td>5,889</td>
<td>7,316</td>
<td>(1,427)</td>
<td>(19.5%)</td>
</tr>
<tr>
<td>Administrative and general</td>
<td>13,766</td>
<td>14,010</td>
<td>(244)</td>
<td>(1.7%)</td>
</tr>
<tr>
<td>Public good</td>
<td>7,878</td>
<td>5,191</td>
<td>2,687</td>
<td>51.8%</td>
</tr>
<tr>
<td>Total operations</td>
<td>212,429</td>
<td>118,533</td>
<td>93,896</td>
<td>79.2%</td>
</tr>
<tr>
<td>Maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>2,332</td>
<td>4,947</td>
<td>(2,615)</td>
<td>(52.9%)</td>
</tr>
<tr>
<td>Transmission and distribution</td>
<td>9,326</td>
<td>10,052</td>
<td>(726)</td>
<td>(7.2%)</td>
</tr>
<tr>
<td>Total maintenance</td>
<td>11,658</td>
<td>14,999</td>
<td>(3,341)</td>
<td>(22.3%)</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>18,518</td>
<td>18,855</td>
<td>(337)</td>
<td>(1.8%)</td>
</tr>
<tr>
<td>Amortization of pension and OPEB</td>
<td>(6,515)</td>
<td>1,087</td>
<td>7,602</td>
<td>(699.4%)</td>
</tr>
<tr>
<td>Amortization of regulatory asset</td>
<td>2,720</td>
<td>2,881</td>
<td>(161)</td>
<td>(5.6%)</td>
</tr>
<tr>
<td>Total depreciation and amortization</td>
<td>14,723</td>
<td>22,823</td>
<td>(8,100)</td>
<td>(35.5%)</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>238,810</td>
<td>156,355</td>
<td>82,455</td>
<td>52.7%</td>
</tr>
<tr>
<td><strong>OPERATING INCOME</strong></td>
<td>15,920</td>
<td>69,067</td>
<td>(53,147)</td>
<td>(76.9%)</td>
</tr>
<tr>
<td><strong>NON-OPERATING REVENUES AND EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other revenues/(expenses)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest income</td>
<td>1,254</td>
<td>317</td>
<td>937</td>
<td>295.6%</td>
</tr>
<tr>
<td>Investment revenue (expense)</td>
<td>9,011</td>
<td>(165)</td>
<td>9,176</td>
<td>*</td>
</tr>
<tr>
<td>Other income (expense) - net</td>
<td>720</td>
<td>785</td>
<td>(65)</td>
<td>(8.3%)</td>
</tr>
<tr>
<td>Unrealized holding gains (losses)</td>
<td>(2,132)</td>
<td>-</td>
<td>(2,132)</td>
<td>*</td>
</tr>
<tr>
<td>Revenue - CIAC</td>
<td>1,572</td>
<td>1,163</td>
<td>409</td>
<td>35.2%</td>
</tr>
<tr>
<td>Total other revenues</td>
<td>10,425</td>
<td>2,100</td>
<td>8,325</td>
<td>396.4%</td>
</tr>
<tr>
<td>Interest charges</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest on long-term debt</td>
<td>7,935</td>
<td>8,549</td>
<td>(614)</td>
<td>(7.2%)</td>
</tr>
<tr>
<td>Interest on commercial paper</td>
<td>8</td>
<td>176</td>
<td>(168)</td>
<td>(95.5%)</td>
</tr>
<tr>
<td>Total interest charges</td>
<td>7,943</td>
<td>8,725</td>
<td>(782)</td>
<td>(9.0%)</td>
</tr>
<tr>
<td><strong>CHANGE IN NET POSITION</strong></td>
<td>$18,402</td>
<td>$62,442</td>
<td>($44,040)</td>
<td>(70.5%)</td>
</tr>
</tbody>
</table>

* Equals 1000% or greater.
## SACRAMENTO MUNICIPAL UTILITY DISTRICT
### STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
**For the Eight Months Ended August 31, 2022**
*(thousands of dollars)*

### OPERATING REVENUES

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual</th>
<th>Budget</th>
<th>Over/(Under)</th>
<th>Percent of Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales to customers</td>
<td>$1,097,269</td>
<td>$1,047,056</td>
<td>$50,213</td>
<td>4.8%</td>
</tr>
<tr>
<td>Sales of surplus power</td>
<td>101,023</td>
<td>141,058</td>
<td>-40,035</td>
<td>(28.4)%</td>
</tr>
<tr>
<td>Sales of surplus gas</td>
<td>141,728</td>
<td>-</td>
<td>141,728</td>
<td>*</td>
</tr>
<tr>
<td>SB-1 revenue (deferral)/recognition, net</td>
<td>15</td>
<td>-</td>
<td>15</td>
<td>*</td>
</tr>
<tr>
<td>AB32 revenue</td>
<td>17,400</td>
<td>-</td>
<td>17,400</td>
<td>*</td>
</tr>
<tr>
<td>LCFS revenue</td>
<td>6,957</td>
<td>12,475</td>
<td>-5,518</td>
<td>(44.2)%</td>
</tr>
<tr>
<td>Other electric revenue</td>
<td>28,814</td>
<td>22,402</td>
<td>6,412</td>
<td>28.6%</td>
</tr>
<tr>
<td>Revenue to rate stabilization fund</td>
<td>(24,437)</td>
<td>-</td>
<td>(24,437)</td>
<td>*</td>
</tr>
<tr>
<td>Revenue from rate stabilization fund</td>
<td>30,225</td>
<td>-</td>
<td>30,225</td>
<td>*</td>
</tr>
<tr>
<td><strong>Total operating revenues</strong></td>
<td>1,398,994</td>
<td>1,222,991</td>
<td>176,003</td>
<td>14.4%</td>
</tr>
</tbody>
</table>

### OPERATING EXPENSES
**Operations**

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual</th>
<th>Budget</th>
<th>Over/(Under)</th>
<th>Percent of Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased power</td>
<td>497,575</td>
<td>286,677</td>
<td>210,898</td>
<td>73.6%</td>
</tr>
<tr>
<td>Production</td>
<td>245,156</td>
<td>176,903</td>
<td>68,253</td>
<td>38.6%</td>
</tr>
<tr>
<td>Transmission and distribution</td>
<td>59,883</td>
<td>55,223</td>
<td>4,660</td>
<td>8.4%</td>
</tr>
<tr>
<td>Customer accounts</td>
<td>35,125</td>
<td>40,249</td>
<td>-5,124</td>
<td>(12.7)%</td>
</tr>
<tr>
<td>Customer service and information</td>
<td>33,480</td>
<td>38,929</td>
<td>-5,449</td>
<td>(14.1)%</td>
</tr>
<tr>
<td>Administrative and general</td>
<td>208,175</td>
<td>112,301</td>
<td>95,874</td>
<td>(84.7)%</td>
</tr>
<tr>
<td>Public good</td>
<td>34,029</td>
<td>38,929</td>
<td>-4,899</td>
<td>(12.6)%</td>
</tr>
<tr>
<td><strong>Total operations</strong></td>
<td>1,022,500</td>
<td>766,011</td>
<td>256,489</td>
<td>33.5%</td>
</tr>
</tbody>
</table>

**Maintenance**

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual</th>
<th>Budget</th>
<th>Over/(Under)</th>
<th>Percent of Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>31,080</td>
<td>33,230</td>
<td>-2,150</td>
<td>(6.5)%</td>
</tr>
<tr>
<td>Transmission and distribution</td>
<td>80,304</td>
<td>75,908</td>
<td>4,406</td>
<td>5.8%</td>
</tr>
<tr>
<td><strong>Total maintenance</strong></td>
<td>111,384</td>
<td>109,138</td>
<td>2,246</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

**Depreciation and amortization**

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual</th>
<th>Budget</th>
<th>Over/(Under)</th>
<th>Percent of Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation</td>
<td>147,869</td>
<td>147,559</td>
<td>310</td>
<td>0.2%</td>
</tr>
<tr>
<td>Amortization of pension and OPEB</td>
<td>(52,123)</td>
<td>8,693</td>
<td>(60,816)</td>
<td>(699.6)%</td>
</tr>
<tr>
<td>Amortization of regulatory asset</td>
<td>24,235</td>
<td>23,047</td>
<td>1,188</td>
<td>5.2%</td>
</tr>
<tr>
<td><strong>Total depreciation and amortization</strong></td>
<td>119,981</td>
<td>179,299</td>
<td>(59,318)</td>
<td>(33.1)%</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>1,253,865</td>
<td>1,054,448</td>
<td>199,417</td>
<td>18.9%</td>
</tr>
</tbody>
</table>

### OPERATING INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual</th>
<th>Budget</th>
<th>Over/(Under)</th>
<th>Percent of Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total operating income</strong></td>
<td>145,129</td>
<td>168,543</td>
<td>(23,414)</td>
<td>(13.9)%</td>
</tr>
</tbody>
</table>

### NON-OPERATING REVENUES AND EXPENSES
**Other revenues/(expenses)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual</th>
<th>Budget</th>
<th>Over/(Under)</th>
<th>Percent of Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest income</td>
<td>5,498</td>
<td>2,650</td>
<td>2,848</td>
<td>107.5%</td>
</tr>
<tr>
<td>Investment revenue (expense)</td>
<td>19,553</td>
<td>(1,373)</td>
<td>20,926</td>
<td>*</td>
</tr>
<tr>
<td>Other income (expense) - net</td>
<td>22,991</td>
<td>20,755</td>
<td>2,236</td>
<td>10.8%</td>
</tr>
<tr>
<td>Unrealized holding gains (losses)</td>
<td>(2,989)</td>
<td>-</td>
<td>(2,989)</td>
<td>*</td>
</tr>
<tr>
<td>Revenue - CIAC</td>
<td>12,453</td>
<td>9,291</td>
<td>3,162</td>
<td>34.0%</td>
</tr>
<tr>
<td><strong>Total other revenues</strong></td>
<td>57,506</td>
<td>31,323</td>
<td>26,183</td>
<td>83.6%</td>
</tr>
</tbody>
</table>

**Interest charges**

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual</th>
<th>Budget</th>
<th>Over/(Under)</th>
<th>Percent of Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest on long-term debt</td>
<td>67,379</td>
<td>68,961</td>
<td>(1,582)</td>
<td>(2.3)%</td>
</tr>
<tr>
<td>Interest on commercial paper</td>
<td>663</td>
<td>1,362</td>
<td>(699)</td>
<td>(51.3)%</td>
</tr>
<tr>
<td><strong>Total interest charges</strong></td>
<td>68,042</td>
<td>70,323</td>
<td>(2,281)</td>
<td>(3.2)%</td>
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</tbody>
</table>

### CHANGE IN NET POSITION

<table>
<thead>
<tr>
<th>Description</th>
<th>Actual</th>
<th>Budget</th>
<th>Over/(Under)</th>
<th>Percent of Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total operating income</strong></td>
<td>145,129</td>
<td>168,543</td>
<td>(23,414)</td>
<td>(13.9)%</td>
</tr>
<tr>
<td><strong>Total other revenues</strong></td>
<td>57,506</td>
<td>31,323</td>
<td>26,183</td>
<td>83.6%</td>
</tr>
<tr>
<td><strong>Total revenue</strong></td>
<td>202,635</td>
<td>199,866</td>
<td>2,769</td>
<td>1.4%</td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td>1,253,865</td>
<td>1,054,448</td>
<td>199,417</td>
<td>18.9%</td>
</tr>
<tr>
<td><strong>Total operating income</strong></td>
<td>145,129</td>
<td>168,543</td>
<td>(23,414)</td>
<td>(13.9)%</td>
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</tr>
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<td>145,129</td>
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<td>(23,414)</td>
<td>(13.9)%</td>
</tr>
<tr>
<td><strong>NET INCOME</strong></td>
<td>145,129</td>
<td>168,543</td>
<td>(23,414)</td>
<td>(13.9)%</td>
</tr>
</tbody>
</table>

* Equals 1000% or greater.
SACRAMENTO MUNICIPAL UTILITY DISTRICT  
SOURCES AND USES OF ENERGY - COMPARED TO BUDGET  
For the Period Ended August 31, 2022

<table>
<thead>
<tr>
<th>Sources of Energy (GWh)</th>
<th>Month</th>
<th>Increase (Decrease)</th>
<th>Year to Date</th>
<th>Increase (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Budget</td>
<td>Percentage</td>
<td>Actual</td>
</tr>
<tr>
<td>Net Generated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydro</td>
<td>89</td>
<td>176 (49.4)</td>
<td>674</td>
<td>1,028 (34.4)</td>
</tr>
<tr>
<td>Carson Power Plant</td>
<td>31</td>
<td>52 (40.4)</td>
<td>148</td>
<td>252 (41.3)</td>
</tr>
<tr>
<td>Procter &amp; Gamble Power Plant</td>
<td>72</td>
<td>87 (17.2)</td>
<td>450</td>
<td>455 (1.1)</td>
</tr>
<tr>
<td>Campbell Power Plant</td>
<td>96</td>
<td>115 (16.5)</td>
<td>587</td>
<td>415 (41.4)</td>
</tr>
<tr>
<td>Cosumnes Power Plant</td>
<td>13</td>
<td>418 (96.9)</td>
<td>818</td>
<td>2,154 (62.0)</td>
</tr>
<tr>
<td>Other</td>
<td>84</td>
<td>77 9.1</td>
<td>444</td>
<td>439 (1.1)</td>
</tr>
<tr>
<td>Total net generation</td>
<td>385</td>
<td>925 (58.4)</td>
<td>3,121</td>
<td>4,743 (34.2)</td>
</tr>
<tr>
<td>Purchased Power less transmission losses:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CalEnergy</td>
<td>19</td>
<td>19 0.0</td>
<td>154</td>
<td>149 (3.4)</td>
</tr>
<tr>
<td>Calpine Sutter</td>
<td>154</td>
<td>164 (6.1)</td>
<td>1,106</td>
<td>749 (47.7)</td>
</tr>
<tr>
<td>Drew Solar</td>
<td>12</td>
<td>30 (60.0)</td>
<td>12</td>
<td>202 (94.1)</td>
</tr>
<tr>
<td>Feed in Tariff</td>
<td>23</td>
<td>24 (4.2)</td>
<td>162</td>
<td>159 (1.9)</td>
</tr>
<tr>
<td>Grady Wind</td>
<td>42</td>
<td>62 (32.3)</td>
<td>548</td>
<td>503 (8.9)</td>
</tr>
<tr>
<td>Rancho Seco PV II</td>
<td>22</td>
<td>38 (42.1)</td>
<td>169</td>
<td>247 (31.6)</td>
</tr>
<tr>
<td>WAPA</td>
<td>25</td>
<td>91 (72.5)</td>
<td>161</td>
<td>565 (71.5)</td>
</tr>
<tr>
<td>WSPP and other</td>
<td>682</td>
<td>49 *</td>
<td>3,282</td>
<td>1,395 (135.3)</td>
</tr>
<tr>
<td>Other long term power</td>
<td>56</td>
<td>67 (16.4)</td>
<td>399</td>
<td>464 (14.0)</td>
</tr>
<tr>
<td>Total net purchases</td>
<td>1,035</td>
<td>544 90.3</td>
<td>5,993</td>
<td>4,433 (35.2)</td>
</tr>
<tr>
<td>Total sources of energy</td>
<td>1,420</td>
<td>1,469 (3.3)</td>
<td>9,114</td>
<td>9,176 (0.7)</td>
</tr>
</tbody>
</table>

Uses of energy:

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SMUD electric sales and usage</td>
<td>1,141</td>
<td>1,088 (4.9)</td>
<td>7,095</td>
<td>6,822 (4.0)</td>
</tr>
<tr>
<td>Surplus power sales</td>
<td>239</td>
<td>368 (35.1)</td>
<td>1,757</td>
<td>1,995 (11.9)</td>
</tr>
<tr>
<td>System losses</td>
<td>40</td>
<td>13 (207.7)</td>
<td>207.7</td>
<td>262 (27.0)</td>
</tr>
<tr>
<td>Total uses of energy</td>
<td>1,420</td>
<td>1,469 (3.3) %</td>
<td>9,114</td>
<td>9,176 (0.7) %</td>
</tr>
</tbody>
</table>

* Change equals 1000% or more.

Net generation is lower than planned for the eight-month period.
- Hydro generation is lower than planned (34.4 percent).
- JPA generation is lower than planned (38.9 percent).

Purchased power, less surplus power sales, is higher than plan (73.7 percent).
STATEMENTS OF NET POSITION
August 31, 2022 and 2021
(thousands of dollars)

<table>
<thead>
<tr>
<th></th>
<th>SMUD</th>
<th>Columnes</th>
<th>NCEA</th>
<th>NCGA #1</th>
<th>Intercompany Eliminations</th>
<th>2022</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELECTRIC UTILITY PLANT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant in service, original cost</td>
<td>$5,850,040</td>
<td>$946,971</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$6,797,011</td>
<td>$6,474,499</td>
</tr>
<tr>
<td>Less accumulated depreciation</td>
<td>2,761,332</td>
<td>667,803</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3,429,135</td>
<td>3,254,963</td>
</tr>
<tr>
<td>Plant in service - net</td>
<td>3,088,708</td>
<td>279,168</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3,367,876</td>
<td>3,219,536</td>
</tr>
<tr>
<td>Construction work in progress</td>
<td>503,284</td>
<td>18,212</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>521,496</td>
<td>559,296</td>
</tr>
<tr>
<td>Investment in Joint Power Agencies</td>
<td>309,636</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(282,677)</td>
<td>26,958</td>
<td>22,523</td>
</tr>
<tr>
<td><strong>Total electric utility plant - net</strong></td>
<td>3,910,628</td>
<td>297,380</td>
<td>-</td>
<td>-</td>
<td>(282,677)</td>
<td>3,916,330</td>
<td>3,801,355</td>
</tr>
<tr>
<td><strong>RESTRICTED ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue bond reserves</td>
<td>2,931</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2,931</td>
<td>3,813</td>
</tr>
<tr>
<td>Restriction on payment of debt service</td>
<td>10,470</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10,470</td>
<td>10,470</td>
</tr>
<tr>
<td>Nuclear decommissioning trust fund</td>
<td>8,399</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8,399</td>
<td>8,974</td>
</tr>
<tr>
<td>Rate stabilization fund</td>
<td>183,204</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>183,204</td>
<td>161,783</td>
</tr>
<tr>
<td>Royalty cost</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net OPEB asset</td>
<td>34,223</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>34,223</td>
<td>710</td>
</tr>
<tr>
<td>Net of decommissioning cost</td>
<td>26,115</td>
<td>-</td>
<td>3,000</td>
<td>1</td>
<td>-</td>
<td>29,116</td>
<td>22,720</td>
</tr>
<tr>
<td>Nuclear decommissioning trust fund</td>
<td>8,399</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8,399</td>
<td>8,974</td>
</tr>
<tr>
<td><strong>Total restricted assets</strong></td>
<td>309,321</td>
<td>9,339</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>318,660</td>
<td>178,080</td>
</tr>
<tr>
<td><strong>CURRENT ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash, cash equivalents and investments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted</td>
<td>526,134</td>
<td>60,494</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>586,628</td>
<td>601,459</td>
</tr>
<tr>
<td>Restricted</td>
<td>19,463</td>
<td>902</td>
<td>11,448</td>
<td>4,646</td>
<td>-</td>
<td>35,459</td>
<td>45,201</td>
</tr>
<tr>
<td>Accounts receivable - net</td>
<td>352,498</td>
<td>27,931</td>
<td>6,185</td>
<td>2,396</td>
<td>46,438</td>
<td>342,573</td>
<td>308,147</td>
</tr>
<tr>
<td>Interest receivable</td>
<td>2,721</td>
<td>98</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>2,823</td>
<td>779</td>
</tr>
<tr>
<td>Regulatory costs to be recovered within one year</td>
<td>19,633</td>
<td>104</td>
<td>-</td>
<td>-</td>
<td>105</td>
<td>19,842</td>
<td>38,229</td>
</tr>
<tr>
<td>Prepaid gas to be delivered within one year</td>
<td>132,538</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>132,538</td>
<td>46,616</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td>1,185,599</td>
<td>116,421</td>
<td>21,541</td>
<td>31,376</td>
<td>(46,438)</td>
<td>1,287,500</td>
<td>1,197,356</td>
</tr>
<tr>
<td><strong>NONCURRENT ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulatory costs for future recovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decommissioning</td>
<td>72,728</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>72,728</td>
<td>78,648</td>
</tr>
<tr>
<td>Pension</td>
<td>329,193</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>329,193</td>
<td>346,220</td>
</tr>
<tr>
<td>OPEB</td>
<td>272,494</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>272,494</td>
<td>285,268</td>
</tr>
<tr>
<td>Bond issues</td>
<td>-</td>
<td>714</td>
<td>-</td>
<td>-</td>
<td>402</td>
<td>1,116</td>
<td>1,325</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>303</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>903</td>
<td>4,879</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>136,371</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>136,371</td>
<td>33,981</td>
</tr>
<tr>
<td>Prepaid gas</td>
<td>-</td>
<td>-</td>
<td>526,575</td>
<td>121,169</td>
<td>-</td>
<td>647,744</td>
<td>675,849</td>
</tr>
<tr>
<td>Prepaid power and capacity</td>
<td>242</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>242</td>
<td>450</td>
</tr>
<tr>
<td>Energy efficiency loans - net</td>
<td>726</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>726</td>
<td>6,879</td>
</tr>
<tr>
<td>Other</td>
<td>69,619</td>
<td>4</td>
<td>-</td>
<td>60</td>
<td>-</td>
<td>69,683</td>
<td>53,301</td>
</tr>
<tr>
<td><strong>Total noncurrent assets</strong></td>
<td>882,278</td>
<td>718</td>
<td>526,575</td>
<td>121,631</td>
<td>-</td>
<td>1,531,202</td>
<td>1,486,480</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$6,258,626</td>
<td>$422,858</td>
<td>$548,116</td>
<td>$153,007</td>
<td>(329,115)</td>
<td>$7,053,692</td>
<td>$6,663,471</td>
</tr>
</tbody>
</table>

**DEFERRED OUTFLOWs OF RESOURCES**

|                      |            |                        |              |                 |                           |           |           |
| Accumulated decrease in fair value of hedging derivatives | 18,339 | -                      | -            | -               | -                         | 18,339    | 26,549    |
| Deferred pension outflows | 75,282    | -                      | -            | -               | -                         | 75,282    | 189,488   |
| Deferred OPEB outflows | 22,304    | -                      | -            | -               | -                         | 22,304    | 24,207    |
| Deferred ARO outflows | 7,836      | 1,286                  | -            | -               | -                         | 9,122     | 13,019    |
| **TOTAL DEFERRED OUTFLOWS OF RESOURCES** | 123,761   | 2,765                  | -            | -               | -                         | 126,526   | 255,065   |

**TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES**

|                      | $6,382,587 | $425,623               | $548,116     | $153,007        | (329,115)                 | $7,180,218 | $6,918,536 |

5
# SACRAMENTO MUNICIPAL UTILITY DISTRICT
## STATEMENTS OF NET POSITION
### August 31, 2022 and 2021
(Thousands of dollars)

### LONG-TERM DEBT -NET

<table>
<thead>
<tr>
<th></th>
<th>SMUD</th>
<th>Cosumnes</th>
<th>NCEA</th>
<th>NCGA #1</th>
<th>Intercompany Eliminations</th>
<th>2022</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2,137,072</td>
<td>96,186</td>
<td>548,521</td>
<td>120,070</td>
<td>$</td>
<td>2,901,849</td>
<td>3,095,802</td>
</tr>
</tbody>
</table>

### CURRENT LIABILITIES

<table>
<thead>
<tr>
<th>Segment</th>
<th>2022</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercompany Eliminations</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>50,000</td>
<td>109,422</td>
</tr>
<tr>
<td>Commercial paper notes</td>
<td>50,000</td>
<td>-</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>109,422</td>
<td>10,918</td>
</tr>
<tr>
<td>Purchased power payable</td>
<td>163,397</td>
<td>12,401</td>
</tr>
<tr>
<td>Credit support collateral obligation</td>
<td>13,059</td>
<td>-</td>
</tr>
<tr>
<td>Accrued decommissioning</td>
<td>111,165</td>
<td>1,845</td>
</tr>
<tr>
<td>Interest payable</td>
<td>13,068</td>
<td>-</td>
</tr>
<tr>
<td>Accrued salaries and compensated absences</td>
<td>53,635</td>
<td>-</td>
</tr>
<tr>
<td>Long-term debt due within one year</td>
<td>16,023</td>
<td>-</td>
</tr>
<tr>
<td>Customer deposits</td>
<td>1,658</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>47,368</td>
<td>-</td>
</tr>
<tr>
<td>Total noncurrent liabilities</td>
<td>159,725</td>
<td>9,021</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>2,882,481</td>
<td>131,119</td>
</tr>
<tr>
<td>Deferred pension liabilities</td>
<td>74,943</td>
<td>9,021</td>
</tr>
<tr>
<td>Derivative financial instruments</td>
<td>5,540</td>
<td>-</td>
</tr>
<tr>
<td>Net pension liability</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total noncurrent liabilities</td>
<td>159,725</td>
<td>9,021</td>
</tr>
<tr>
<td>Noncurrent liabilities</td>
<td>1,081,502</td>
<td>1,081,502</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>3,963,983</td>
<td>3,963,983</td>
</tr>
</tbody>
</table>

### DEFERRED INFLOWS OF RESOURCES

<table>
<thead>
<tr>
<th>Segment</th>
<th>2022</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulated increase in fair value of hedging derivatives</td>
<td>249,531</td>
<td>-</td>
</tr>
<tr>
<td>Deferred pension inflows</td>
<td>191,077</td>
<td>-</td>
</tr>
<tr>
<td>Deferred OPEB inflows</td>
<td>73,792</td>
<td>-</td>
</tr>
<tr>
<td>Regulatory credits</td>
<td>555,571</td>
<td>-</td>
</tr>
<tr>
<td>Unamortized bond gains - other</td>
<td>8,207</td>
<td>-</td>
</tr>
<tr>
<td>Unearned revenue</td>
<td>3,344</td>
<td>-</td>
</tr>
<tr>
<td>Total deferred inflows of resources</td>
<td>1,081,502</td>
<td>20</td>
</tr>
<tr>
<td>Total deferred inflows of resources</td>
<td>1,081,502</td>
<td>20</td>
</tr>
</tbody>
</table>

### NET POSITION

<table>
<thead>
<tr>
<th>Segment</th>
<th>2022</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at beginning of year</td>
<td>2,292,641</td>
<td>283,722</td>
</tr>
<tr>
<td>(decrease) for the year</td>
<td>125,963</td>
<td>10,762</td>
</tr>
<tr>
<td>Member contributions (contributions) - net</td>
<td>-</td>
<td>(865)</td>
</tr>
<tr>
<td>Total net position</td>
<td>2,418,604</td>
<td>294,484</td>
</tr>
<tr>
<td>Total liabilities, deferred inflows of resources and net position</td>
<td>$6,382,587</td>
<td>$245,623</td>
</tr>
</tbody>
</table>

6
## SACRAMENTO MUNICIPAL UTILITY DISTRICT
### STATEMENTS OF CASH FLOWS
For the Period Ended August 31, 2022
(thousands of dollars)

<table>
<thead>
<tr>
<th>CASH FLOWS FROM OPERATING ACTIVITIES</th>
<th>Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipts from customers</td>
<td>$ 190,956</td>
<td>$ 1,044,024</td>
</tr>
<tr>
<td>Receipts from surplus power and gas sales</td>
<td>36,594</td>
<td>226,489</td>
</tr>
<tr>
<td>Other receipts</td>
<td>33,485</td>
<td>130,405</td>
</tr>
<tr>
<td>Payments to employees - payroll and other</td>
<td>(25,492)</td>
<td>(264,590)</td>
</tr>
<tr>
<td>Payments for wholesale power and gas purchases</td>
<td>(120,874)</td>
<td>(559,228)</td>
</tr>
<tr>
<td>Payments to vendors/others</td>
<td>(43,832)</td>
<td>(295,529)</td>
</tr>
<tr>
<td><strong>Net cash provided by operating activities</strong></td>
<td>70,837</td>
<td>281,571</td>
</tr>
</tbody>
</table>

### CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repayment of debt</td>
<td>-</td>
<td>(20,550)</td>
</tr>
<tr>
<td>Interest on debt</td>
<td>-</td>
<td>(27,031)</td>
</tr>
<tr>
<td><strong>Net cash used in noncapital financing activities</strong></td>
<td>-</td>
<td>(47,581)</td>
</tr>
</tbody>
</table>

### CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction expenditures</td>
<td>(28,176)</td>
<td>(228,263)</td>
</tr>
<tr>
<td>Contributions in aid of construction</td>
<td>1,417</td>
<td>17,039</td>
</tr>
<tr>
<td>Net proceeds from bond issues</td>
<td>-</td>
<td>150,711</td>
</tr>
<tr>
<td>Repayments and refundings of debt</td>
<td>(82,480)</td>
<td>(263,123)</td>
</tr>
<tr>
<td>Issuance of commercial paper</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Other receipts</td>
<td>-</td>
<td>2,540</td>
</tr>
<tr>
<td>Interest on debt</td>
<td>(44,029)</td>
<td>(107,101)</td>
</tr>
<tr>
<td><strong>Net cash used in capital and related financing activities</strong></td>
<td>(103,268)</td>
<td>(378,197)</td>
</tr>
</tbody>
</table>

### CASH FLOWS FROM INVESTING ACTIVITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales and maturities of securities</td>
<td>69,677</td>
<td>289,245</td>
</tr>
<tr>
<td>Purchases of securities</td>
<td>(122,040)</td>
<td>(694,287)</td>
</tr>
<tr>
<td>Interest and dividends received</td>
<td>202</td>
<td>3,592</td>
</tr>
<tr>
<td>Investment revenue/expenses - net</td>
<td>9,007</td>
<td>19,511</td>
</tr>
<tr>
<td><strong>Net cash used in investing activities</strong></td>
<td>(43,154)</td>
<td>(381,939)</td>
</tr>
</tbody>
</table>

Net decrease in cash and cash equivalents

<table>
<thead>
<tr>
<th>Description</th>
<th>Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net decrease in cash and cash equivalents</td>
<td>(75,585)</td>
<td>(526,146)</td>
</tr>
</tbody>
</table>

Cash and cash equivalents at the beginning of the month and year

<table>
<thead>
<tr>
<th>Description</th>
<th>Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents at August 31, 2022</td>
<td>$ 262,502</td>
<td>$ 262,502</td>
</tr>
</tbody>
</table>

Cash and cash equivalents included in:

<table>
<thead>
<tr>
<th>Description</th>
<th>Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrestricted cash and cash equivalents</td>
<td>$ 189,802</td>
<td>$ 189,802</td>
</tr>
<tr>
<td>Restricted and designated cash and cash equivalents</td>
<td>12,887</td>
<td>12,887</td>
</tr>
<tr>
<td>Restricted and designated assets (a component of the total of $318,660 at August 31, 2022)</td>
<td>59,813</td>
<td>59,813</td>
</tr>
</tbody>
</table>

Cash and cash equivalents at August 31, 2022

<table>
<thead>
<tr>
<th>Description</th>
<th>Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents at August 31, 2022</td>
<td>$ 262,502</td>
<td>$ 262,502</td>
</tr>
</tbody>
</table>