

Exhibit to Agenda Item #9

Approve August 31, 2021, as the date for the **Public Hearing for considering the Chief Executive Officer and General Manager's Report and Recommendation (CEO & GM Report) on Rates and Services (Volumes 1 and 2)** dated June 17, 2021, and the **CEO & GM Report on Open Access Transmission Tariff (Volume 1)** dated June 17, 2021.

Board of Directors Meeting

Thursday, June 17, 2021, scheduled to begin at 5:30 p.m.

Virtual Meeting (online)

2021 Rate Process

Board meeting on June 17, 2021

- Staff will release the Chief Executive Officer & General Manager’s Report and Recommendations on Rates and Services and Open Access Transmission Tariff
- Board resolution vote to approve public hearing date

Rate Process Timeline

Public
Outreach
Period
75 Days

Date	Milestone
June 15	Request a public hearing date at the Finance & Audit Committee meeting
June 17	Set public hearing date and release GM Report*
July 8	Public Outreach Rate Workshop #1 at 5:30 p.m. (ZoomGov/Granicus)
July 27	Public Outreach Rate Workshop #2 at 10 a.m. (ZoomGov/Granicus)
August 31	Public hearing and rates resolution drafted at 5:30 p.m. (ZoomGov/Granicus)
September 16	Board resolution vote

Three public notices are schedule to be published on June 22, June 25 and June 30
If needed, staff will host a third public workshop on August 5 at 5:30 p.m. (virtual)

Executive Summary

- Overview of Rate Design Approach
- Recommendations:
 - 2022 and 2023 Rate Increases
 - Solar and Storage Rate
 - Optional Critical Peak Pricing (CPP) Rate
 - Miscellaneous Rates Changes
- Informational (Programs and Fees):
 - Interconnection Fee
 - Storage Incentive Program
 - Virtual Net Energy Metering Program

Transformational Leadership

- Builds on SMUD's long-term support for solar industry
- Balanced approach to support all technologies and customer investments needed to achieve zero carbon
- Enables wide-ranging customer choice
- 2030 Zero Carbon Plan: Transformational and Industry-Leading
- Rates and Programs: Industry-Leading to achieve the Transformation

2022 and 2023 Rate Recommendations

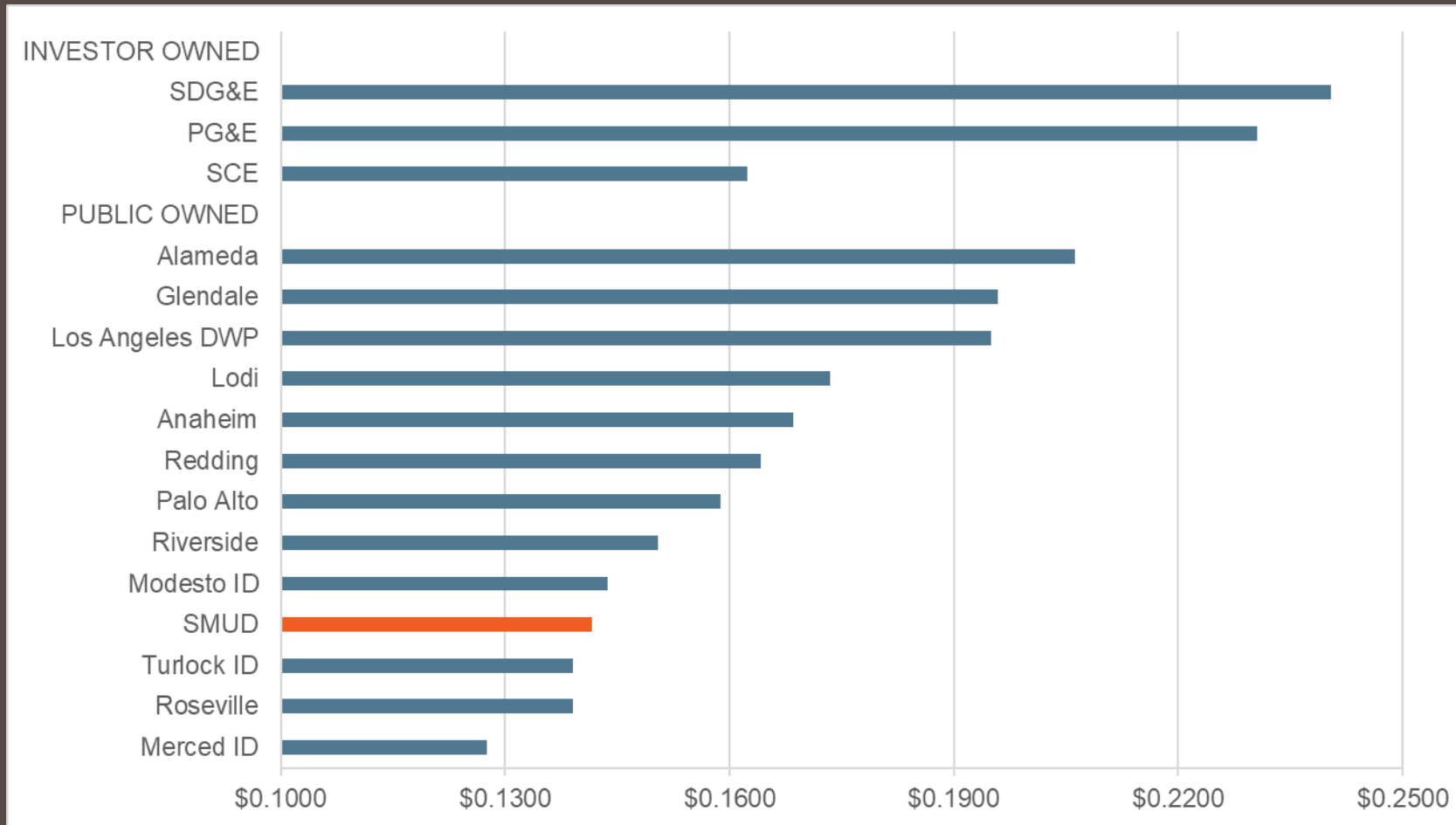
Rates Proposal

Rate Proposal	Rates & Effective Date	Customer Groups Impacted
2022 – 2023 Rate Increases	1.5% effective on 3/1/2022 2.0% effective on 1/1/2023	All Customers

- The proposed increase is well below the forecasted rate of inflation; SMUD is committed to keeping rate increases within inflation
- Major drivers for rate proposal:
 - Wildfire prevention and mitigation
 - Infrastructure improvements to maintain high reliability
 - Clean energy compliance requirements
 - Increased operating costs, including materials and labor costs
- Continued internal focus on cost savings and efficiencies to minimize rate increases

For more details, please see the Rate Increase Drivers section in the GM Report.

2020 Average System Rate Comparison (\$/kWh)



Source: EIA 861M 2020 and self-reported annual data from the 2020 EIA 861 annual survey

Bill Impacts with Proposed Rates

Sample Monthly Bill Impacts

Size	Average Monthly Bill	1.5% Rate Impact in 2022	2.0% Rate Impact in 2023
Small Commercial (20 – 299 kW)	\$2,921	\$44	\$59
Medium Commercial (500 – 999 kW)	\$25,906	\$389	\$526
Large Commercial (>1,000 kW)	\$91,623	\$1,374	\$1,860
Agriculture (Ag & Pumping)	\$351	\$5	\$7
Average residential at 750 kWh usage	\$126.44	\$1.91	\$2.57

Customers on our low-income Energy Assistance Program Rate (EAPR) & Medical Equipment Discount (MED) rate will see slightly different bill impacts than standard rate customers.

Amounts may reflect minor rounding differences

Solar & Storage Rate and Recommendations

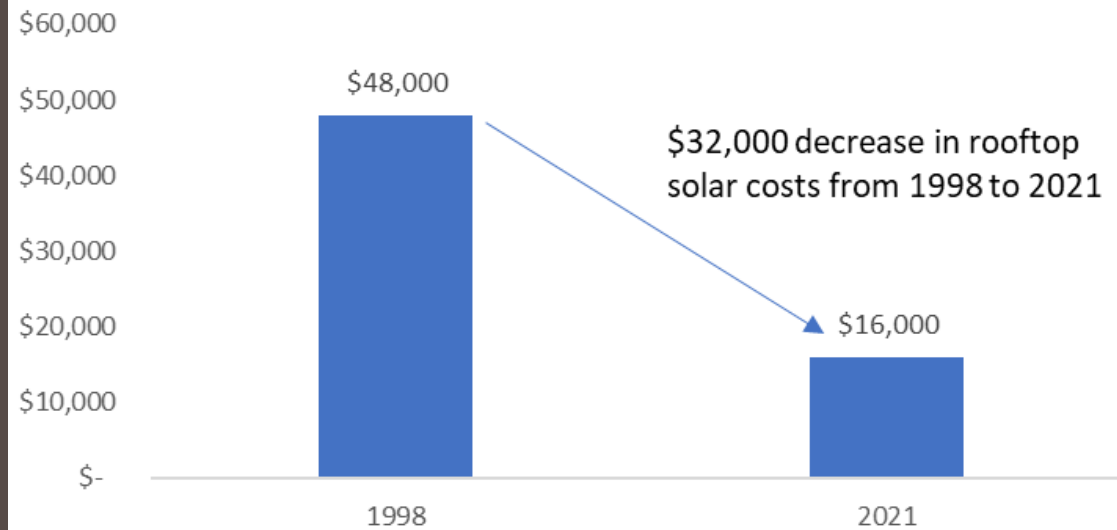
Net Energy Metering (NEM) 1.0 was successful in reducing rooftop solar costs

Rooftop solar prices (per watt)

1998 ~\$12 per Direct
Current Watt (Wdc)*

2021 ~\$4 (national average)

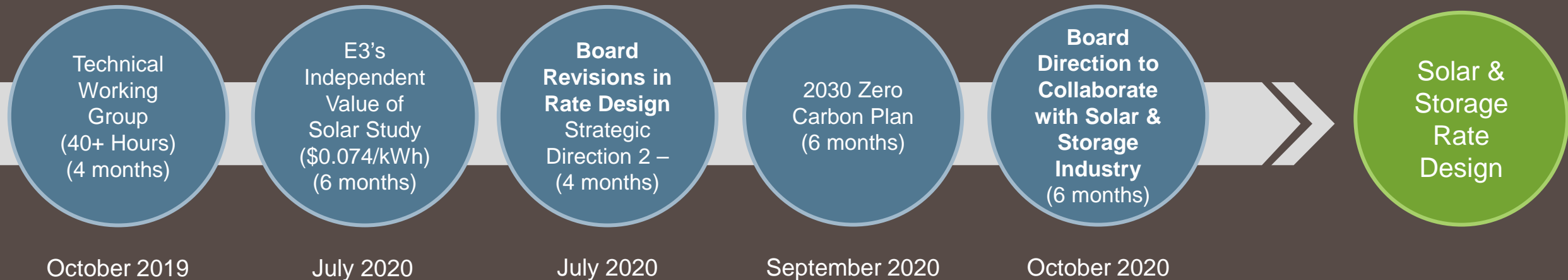
Decrease in rooftop solar customer's cost to
install a 4 kilowatt (kW) system



Note: Rate proposal recommends continued NEM 1.0 rate for existing customers through 2030.

* (NREL US DOE SunShot Initiative) reflects a 1998 price of about \$12.00/Wdc for ≤ 10 kW

Two-Year Collaborative Rate Design Journey



2 Years of SMUD Staff working with Customers, Stakeholders, and the Solar & Storage Industry to develop the Solar & Storage Rate.

Solar and Storage Rate – NEW Solar Customers

Rate Proposal	Rate Effective Date	Customer Groups Impacted
Solar and Storage Rate	January 1, 2022	All Solar and Storage customers approved for interconnection on or after 1/1/2022

- Rate is designed to accelerate storage adoption and transform the market from solar only to solar and storage.
- Proposal will benefit all our customers and help SMUD achieve the 2030 Zero Carbon Plan.
- Excess power can be sold back to SMUD for \$0.074/kWh no matter the time-of-day or season.
- SMUD will reevaluate this value every 4 years (2026 & 2030) and the value will not be revised more than +/- 30%.
- **Staff is recommending to the Board that all NEM 1.0 customers continue on the NEM 1.0 legacy rate through 2030.**

For more details, please see the Changes to Net Energy Metering section in the GM Report.

Excess Power Sold Back to SMUD \$0.074/kWh

What makes up the \$0.074/kWh?

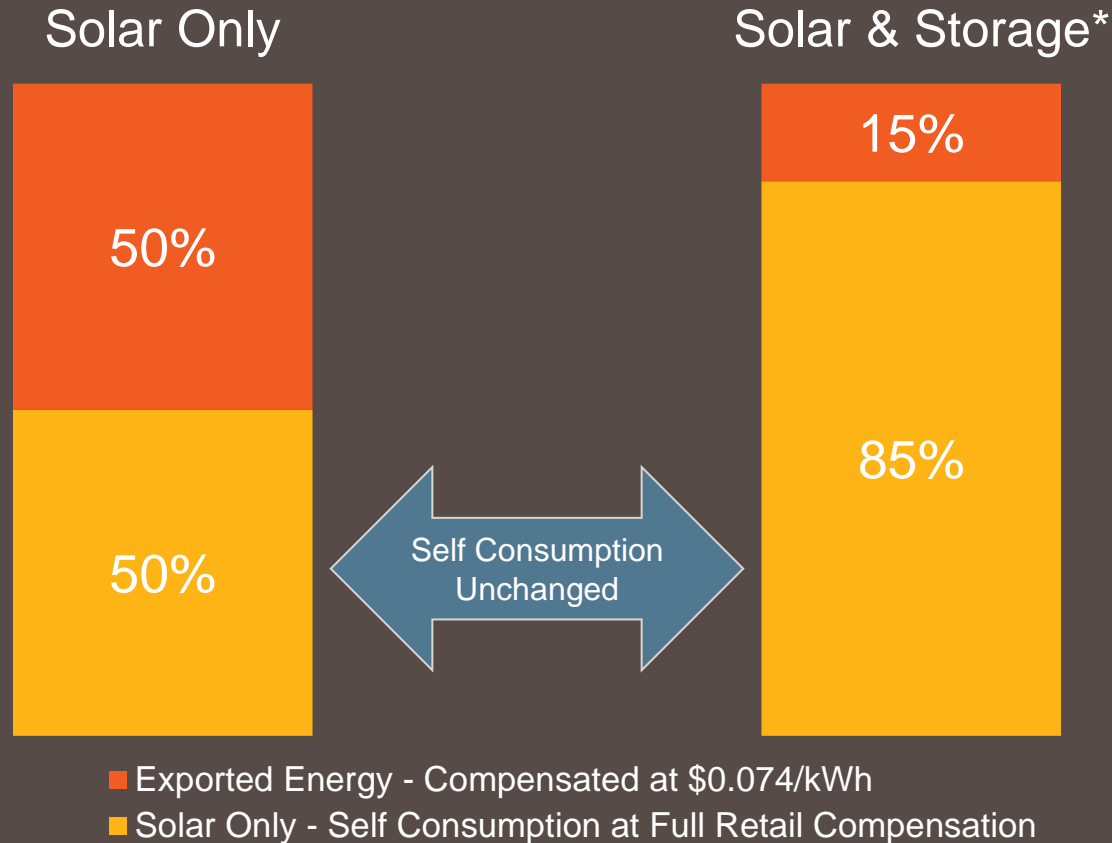
- SMUD is recognizing rooftop customer's excess energy avoids generating this power from a powerplant
- By avoiding powerplant generation SMUD can avoid the following related costs:
 - Carbon / Greenhouse Gases
 - Natural Gas
 - Capacity (Transmission, Distribution, & Generation)



SMUD is recognizing rooftop customer's excess energy provides a **unique indirect benefit of avoiding disturbing** land for a utility size solar plant.

For more details, please see the Changes to Net Energy Metering section in the GM Report.

Solar and Storage Rate encourages self-consumption

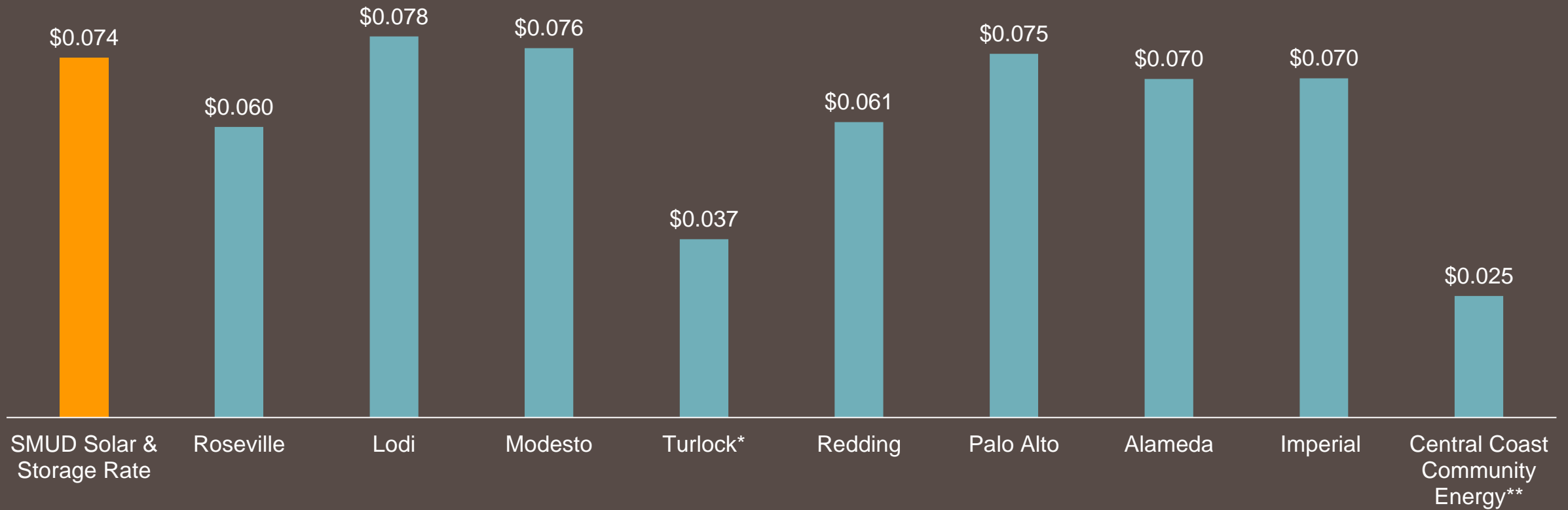


Key Takeaway:

85% of the generation retains retail value

* Projected values after solar and storage adoption. Each customer's energy usage will directly impact their respective percentage of self-consumption and exported energy.

Export Rate Comparison among other utilities (\$/kWh)



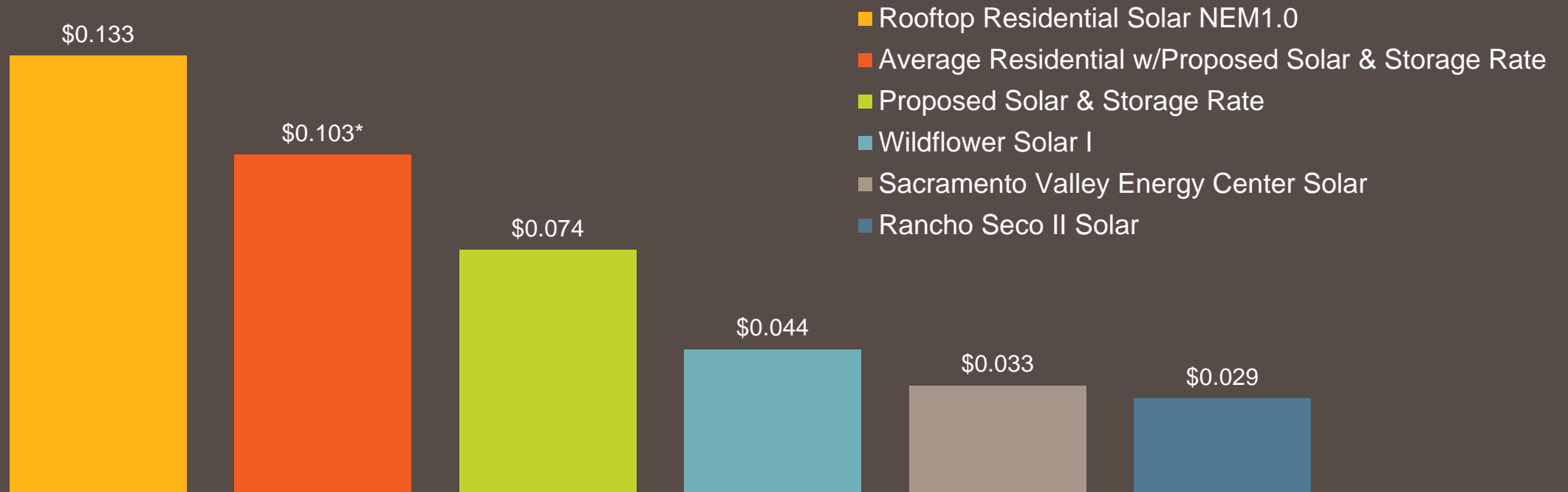
* Represents the average of on-peak and off-peak prices

** Central Coast Community Energy is a proposed rate is not a Publicly Owned Utility

All figures are being rounded for graphical purposes

How does the new Solar and Storage Compare to Other Local SMUD's Solar Resources?

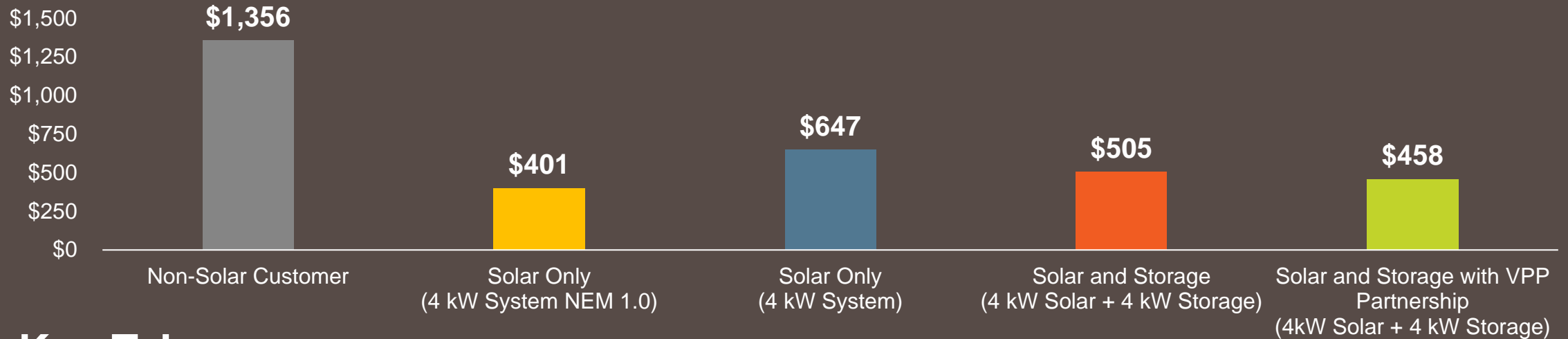
Solar Export Compared to other local solar resources (\$/kWh)



**Effective rate, based on assumed portion of solar generation is consumed on site by the customer and remainder sold back to SMUD at Solar & Storage Rate*

Customer bill impacts before and after the Solar & Storage Rate

Annual Bill Estimates*



Key Takeaway:

Investing Solar and Storage and becoming a Virtual Power Plant (VPP) partner adds the most value for the customer and the greatest impact in helping SMUD achieve the 2030 Zero Carbon Plan

* Bill Impacts include System Infrastructure Fixed Charge. Illustrative example, this is not reflective for all customers.

Optional Critical Peak Pricing Rate Recommendation

Optional Critical Peak (CPP) Pricing Rate

Rate Proposal	Effective Date	Customer Groups Impacted
Critical Peak Pricing Rate (CPP)	6/1/2022	Optional Rate for Residential Customers 1. Up to 30,000 customers <ul style="list-style-type: none">• Customers with a SMART Thermostat• Solar and Storage Customers• Storage Only Customers

- Much like a Time of Day (TOD) rate, customers will pay a bit less during non-peak hours, but pay a premium during a CPP event
- Encourages storage customers to use their batteries to maximize their return on investment
- Encourages all customers to reduce energy use during CPP event
- CPP events will only be called during Summer months (Jun – Sep)

For more details, please see the Residential Critical Peak Pricing Rate section in the GM Report.

Solar & Storage Rate Supporting Programs and Fees

Staff Will Implement Interconnection Fees on 1/1/2022 for New Solar Customers

Start date: January 1, 2022

Residential (Majority)	Residential
≤10kW - \$475	>10kW - 20kW - \$900

Commercial	Commercial (Majority)	Commercial (Cost based)
≤100kW - \$2,500	>100kW - ≤500kW - \$3,300	>500kW - \$5,000

Note: This is a direct cost recovery fee for SMUD to cover expenses related to technical document review, validation of system sizes, onsite inspections, integration into SMUD's distribution system, and processing of application.

Supporting Programs

Promote solar and storage adoption

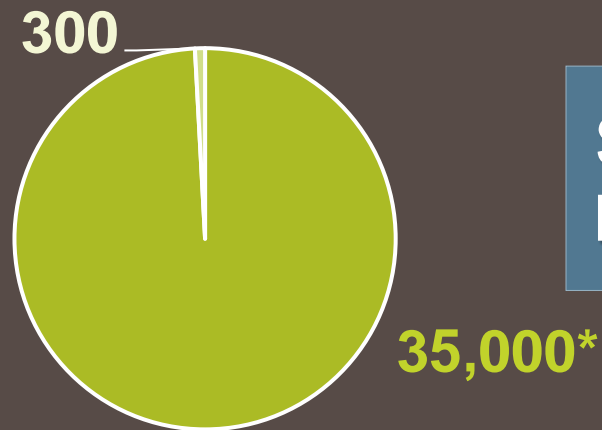
Solar and Storage Rate Supporting Programs & Incentives	Description	Incentive Level	Customer Groups
Storage Incentive Program	Battery incentive	Up to \$500	Customers with solar and/or storage
	Battery incentive with Critical Peak Pricing (CPP)	Up to \$1,500	Residential Customers with solar and/or storage
	Battery incentive with Virtual Power Plant (VPP)*	Up to \$2,500	Customers with solar and/or storage
Virtual Net Energy Metering (VNEM)	Virtual solar for multifamily residences	N/A	Under-resourced Communities
	SMUD is committed to bringing the benefits of solar to under-resourced multi-family dwelling communities		

* Virtual Power Plant customers will see on going “grid benefit” payments that align with grid service costs

SMUD's Leadership – Transforming the Solar Market to Solar & Storage

NEM 1.0

22 years = 300 storage customers or <1% adoption rate



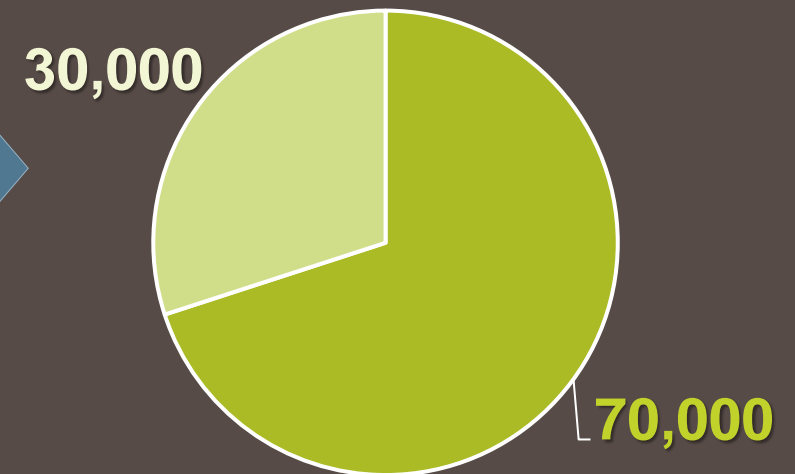
- Solar Only Customers
- Solar + Storage Customers

* As of Mar 2021

\$25M in storage / battery incentives

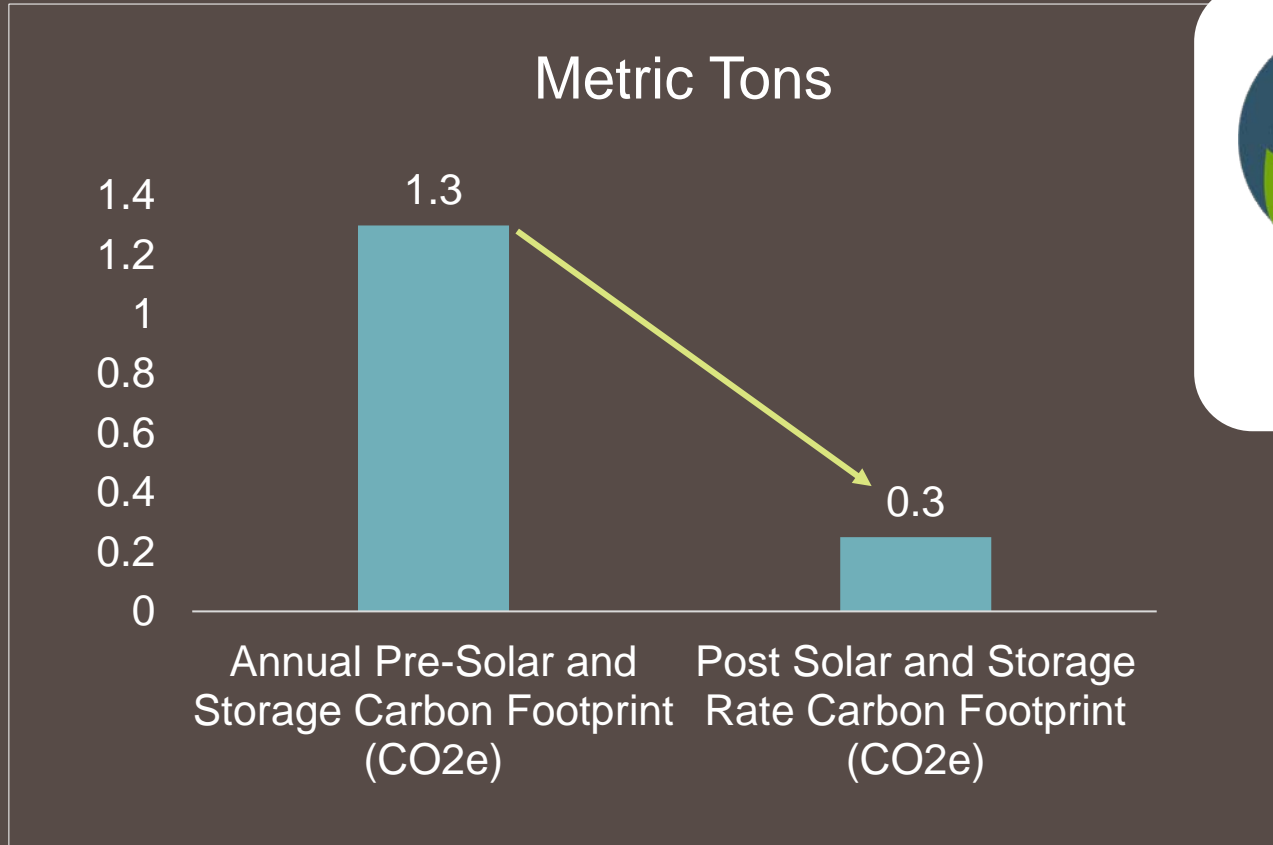
Solar & Storage Rate

9 years = 30,000 storage customers



- Solar Only Customers
- Solar + Storage Customers

Customer's carbon footprint before and after the Solar & Storage Rate



Decrease of 1 Metric Ton (CO2e)* per household for 30,000 customers would be equivalent to removing 7,500 gasoline cars off the road!

* CO2e – Carbon Dioxide Equivalent term for describing different greenhouse gases in a common unit
<https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle>

Open Access Transmission Tariff (OATT) Update

- The last update to the Open Access Transmission Tariff was approved in 2017
- The proposal includes Ancillary Services price increases to the following schedules:
 - **Schedule 1:** includes, scheduling, system control and dispatch service
 - Proposed rate change from \$267.21/MW to \$361.72/MW of reserved capacity per month
 - **Schedule 2:** includes reactive supply and voltage control from generation or other sources service
 - Proposed rate change from \$76.94/MW to \$80.38/MW of reserved capacity per month

For more details, please see OATT Volume 1 of the GM Report.

Outreach objectives & priorities



Identified target audiences



Community & Business Leaders

Chambers, CBOs, Pbids



Neighborhood & Faith Based

HOAs, Rotary, Kiwanis, Large Churches, etc.



Elected Officials

City and County elected officials



Industry & Environmental Groups

Energy industry, environmental, etc.



Outreach strategy & approach

Reach out to 750+ groups to provide menu of options to share an overview of the Rate Action proposal. Efforts will include email communication and personalized phone outreach to groups as needed.

Opportunities will be provided including choices of newsletter articles, slide decks/collateral, videos or an opportunity to host SMUD for a virtual meeting.

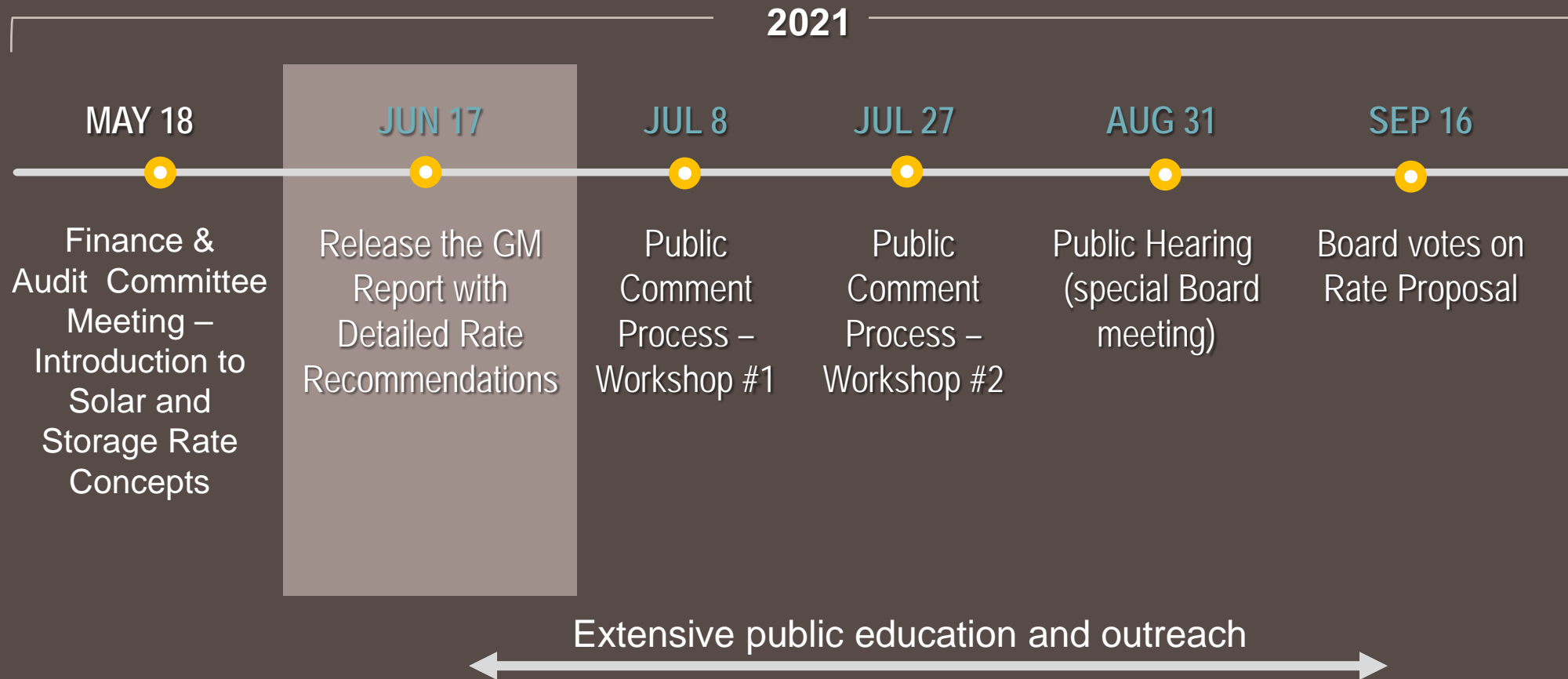
For groups requesting a meeting, we will tailor presentations based on audience type and time allotted and identify most appropriate presenter.

Emphasis on balanced outreach across SMUD territory to reach customers. Will prioritize some solar-dense communities and groups who have expressed interest in the past to make sure they are receiving information.

Integrated communications campaign



Rate Process Timeline



Requested Action

Approve August 31, 2021, as the date for the Public Hearing for considering the Chief Executive Officer and General Manager's Report and Recommendation ("CEO & GM Report") on Rates and Services (Volumes 1 and 2), dated June 17, 2021, and CEO & GM Report on Open Access Transmission Tariff (Volume 1), dated June 17, 2021.

Questions?

