



a forum

**for climate
action**

May 11, 2023



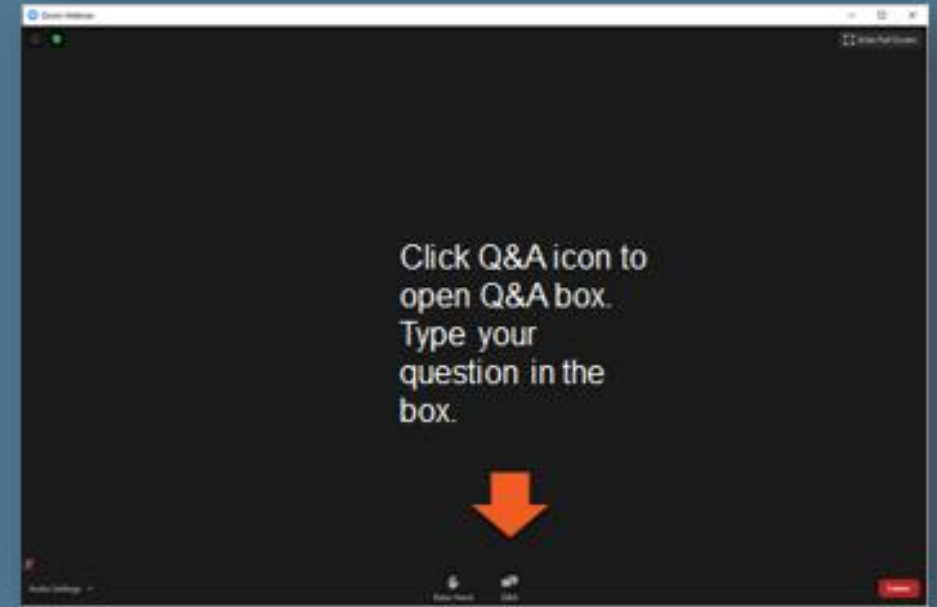
Agenda

- **Meet our presenters**
- **Road to Zero: join the charge!**
- **What SMUD's doing & why:** Our progress toward clean power
- **What you can do:** Your role in the 2030 Clean Energy Vision
- **Q & A**

Questions can be submitted in the chat.

We'll take questions at the end of tonight's presentation.

Although we may not have time to answer all questions, we'll respond to as many as possible via chat and live responses.





Crystal Richardson
Supervisor, Community
Engagement Events



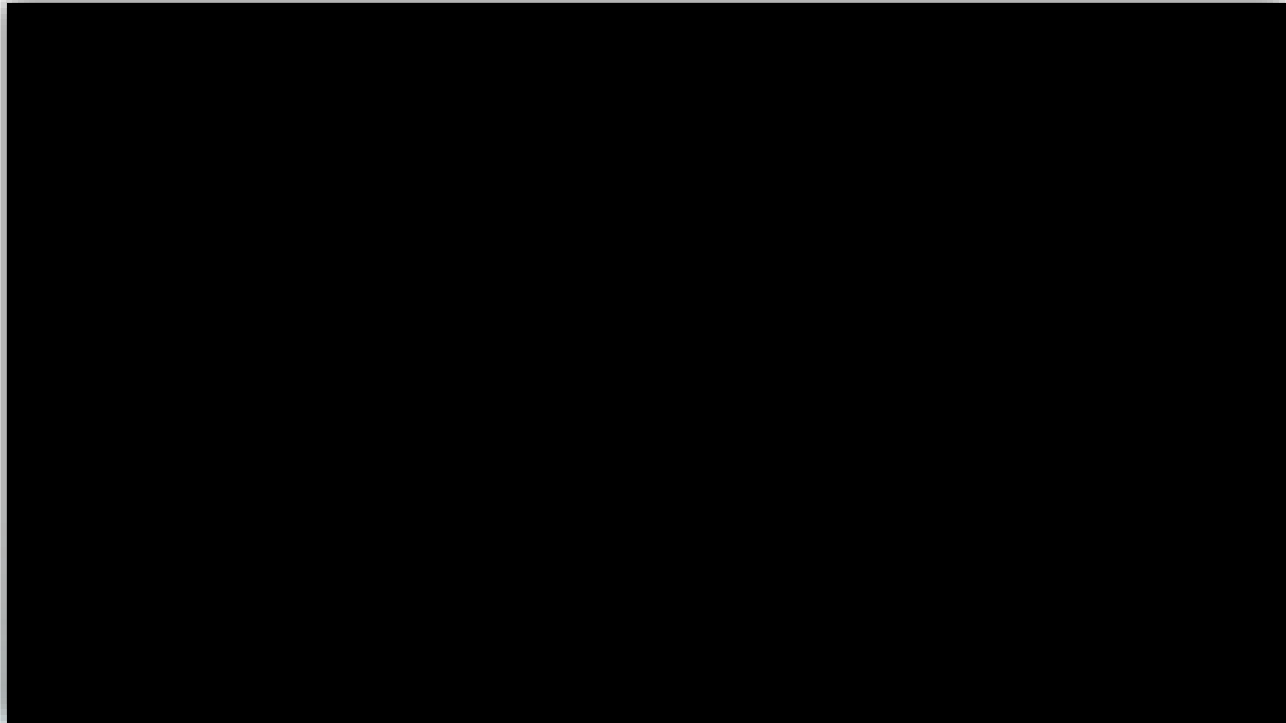
Joel Ledesma
Director, Power Generation



Ed Hamzawi
Director, Advanced Energy
Solutions



Are you ready to join the charge? CleanPowerCity.org



POLL:

Have you signed up to join the charge?

- YES!
- Not yet - send me the link!
- No, I want to learn more, first.





2030 Zero Carbon Plan

Powering forward.
Together.



Why?



SMUD & regional agencies recognize that we're facing a climate crisis and must act.

Rising temperatures have an adverse impact on the economy.



American Lung Association gives the region an “F” for air quality.*

Local childhood asthma rates are about **22%** higher than the national average.**

*American Lung Association State of the Air Report, 2018-2020

**California Department of Public Health: <https://data.ca.gov/dataset/asthma-prevalence>





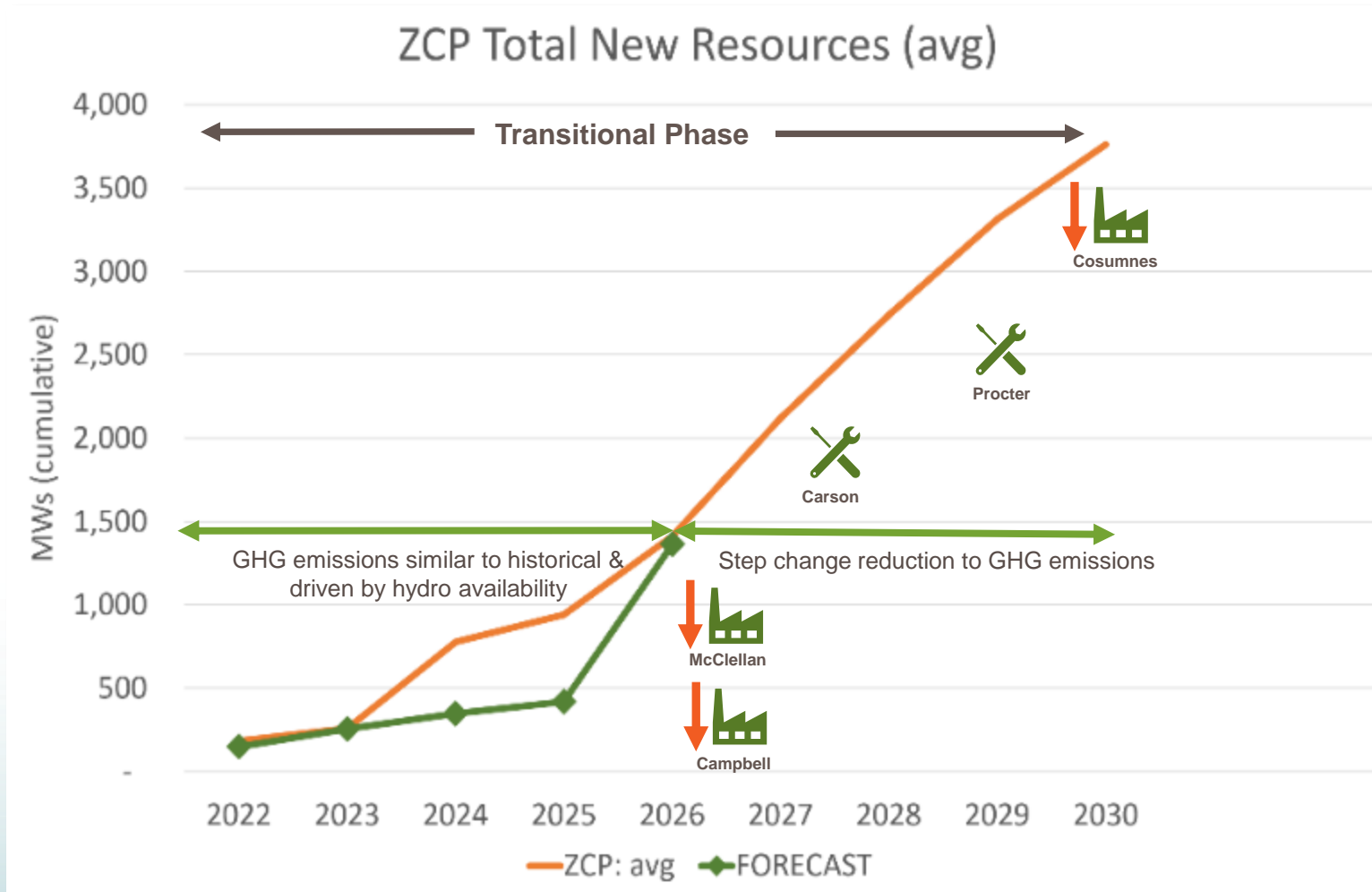
Our progress toward clean power

Powering forward.
Together.



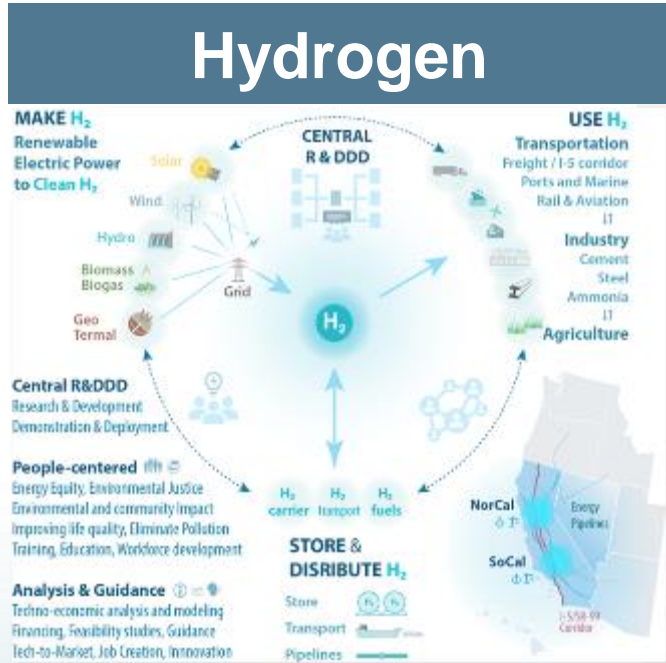


Work in progress vs 2030 Zero Carbon Plan





New technologies



H2Hubs
8-10 regional Clean Hydrogen Hubs funded through the Department of Energy. SMUD concepts have been selected as alternatives in the application process.



Sutter Energy Center
Exploring purchased power agreement (PPA) for carbon capture with Calpine.



4MW / 24MWH
Current demonstration at Hedge of ESS's flow-battery 'Energy Warehouse.'



Proven clean technologies

Solano wind assets



300 MW

by May 2024 through all Solano assets. Now installing 19 turbines at Solano 4 for 85.5 MW total.

Geothermal



100 MW

contract executed Jan 2023 with Calpine at The Geysers. Equivalent to removing 342,000 metric tons of GHGs.

Solar & storage



594 MW PV
272 MW x 4 hr
BESS

3 projects current in permitting phase. Forecast operation 2026.

Long-term storage



4MW / 24MWH

project commission in Fall of 2023. Current demonstration at Hedge of ESS's flow-battery 'Energy Warehouse.'

Opt-in for a chance to win!



1 of 5 \$100 Amazon gift cards



Your role in the 2030 Clean Energy Vision

Powering forward.
Together.





CleanPowerCity.org

Show your support to create a healthier environment and cleaner air:

- Discover rebates & incentives.
- Get tips on being energy smart and reducing your emissions.
- Learn how to support the grid.
- Find out more about electric vehicles.
- **Enjoy some free swag!**



@mysmud



@SMUDUpdates



@mysmud



@smud



@smud





save up to **\$3,500**

Get rebates on appliances and more at CleanPowerCity.org

SMUD

A banner with a background image of a hand touching a control panel. The text "save up to \$3,500" is prominently displayed in white. Below it, smaller text provides the website for rebates and the SMUD logo.

save up to **\$1,000**

EV charging rebates at CleanPowerCity.org

SMUD

A banner with a background image of an EV charging station. The text "save up to \$1,000" is prominently displayed in white. Below it, smaller text provides the website for rebates and the SMUD logo.

save on **clean power** products

Visit SMUDEnergyStore.com

SMUD

A banner with a background image of a hand holding a smart thermostat. The text "save on clean power products" is prominently displayed in white. Below it, smaller text provides the website for products and the SMUD logo.

Zero Carbon customer programs opportunities



Energy efficiency & building electrification

Helping customers decarbonize their homes and workplaces by optimizing and managing their electricity use and converting from gas to efficient electric equipment.



Load flexibility & battery storage

Programs and options 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.



Driving electric

Incentives, information and special rates to help customers purchase and charge EVs for homes and businesses.



Green pricing

Gives customers the ability to opt in and select a level of renewable and/or carbon-free electricity that meets individual or corporate objectives above and beyond our standard retail rates.



How do I decarbonize my home?

Energy efficiency & electrification residential programs

Advanced home solutions contractor network



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

Customer information & rebates



- Informational programs
 - Home electricity reports
- SMUD Energy Store
 - Smart thermostats
- Induction cooktops

Retailer partnerships



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

smud.org/Rebates



How do I decarbonize my business?

Energy efficiency & electrification commercial programs

Self-service approach



smud.org/EES

Express Energy Solutions

Turnkey approach



smud.org/CES

Complete Energy Solutions

Specialized approach



smud.org/Custom

Advanced Commercial Solutions

Property owners/ managers



smud.org/Multifamily

Multifamily retrofit

Builders / Developers



smud.org/IDS
smud.org/SmartHomes

Commercial Integrated Design Solutions
Residential Smart Homes



Residential & commercial programs

Driving electric

Residential



- Drive Electric Program
 - EV information support & PlugStar online tools
 - Ride & Drive events
 - Dealer engagement
- SMUD Charge@Home Program
- Residential EV rate credit
- Sacramento Clean Cars for All Partnership
- Managed Charging Pilot

smud.org/DriveElectric

Commercial



- Commercial EV Program
 - Light, medium & heavy-duty vehicle incentives
 - Level 1, 2 and fast charger incentives
- SMUD eFuelSM advisor & solutions
- Commercial EV Pilot rate

smud.org/DriveElectricBusiness



How can I help my community build a virtual power plant?

Load flexibility & battery storage

Battery Storage



smud.org/Going-Green/Battery-storage

Residential

- My Energy OptimizerSM

Commercial

Commitment to Operate

Smart Thermostats



www.MyEnergyOptimizer.org

Residential

- My Energy OptimizerSM

Air-Conditioners



smud.org/peakconserve

Residential

- Peak Conserve

Automated Demand Response



smud.org/PowerDirect

Commercial

- PowerDirect[®]

Water Heaters



smud.org/powerminder

Residential
Power Minder
Pilot Project

Electric Vehicles



smud.org/driveelectric

Residential
Managed
Charging Pilot
Project



Residential & commercial programs

Green pricing

Residential Greenergy



smud.org/Greenergy

Options

- Standard
- California renewable
- Local renewable
- Neighbor
- Climate Advocate

Commercial Greenergy



smud.org/Greenergy

Partner Plus

- 100% California-based carbon free generation

Custom Blend

- Tailored mix based on customer needs

Community Solar & Storage



smud.org/Going-Green/Neighborhood-SolarShares

Neighborhood SolarShares

Commercial StorageShares

Sacramento Shade



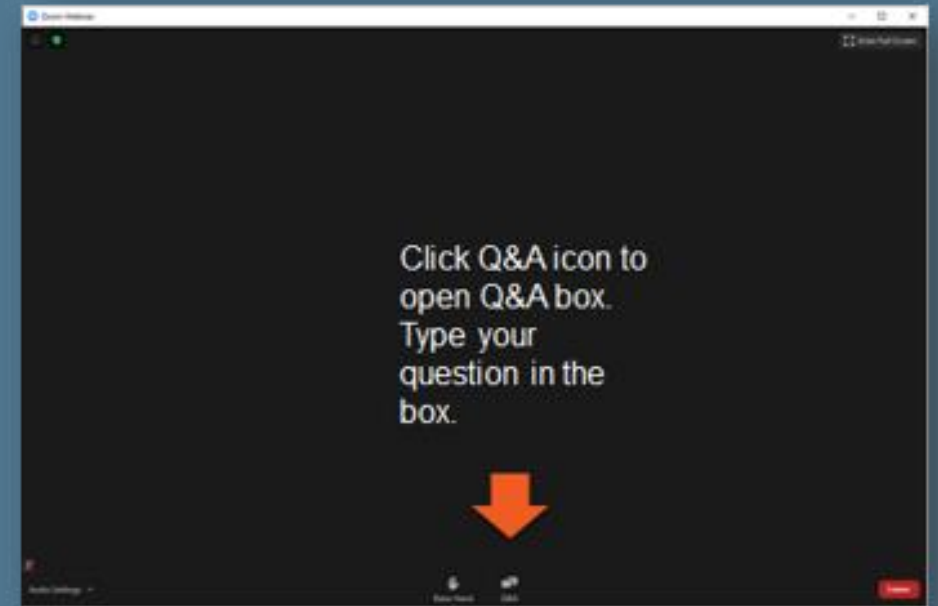
smud.org/ShadeTrees

Free trees for residential customers, parks, & communities

Welcome to the Q&A

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