

Exhibit to Agenda Item #3

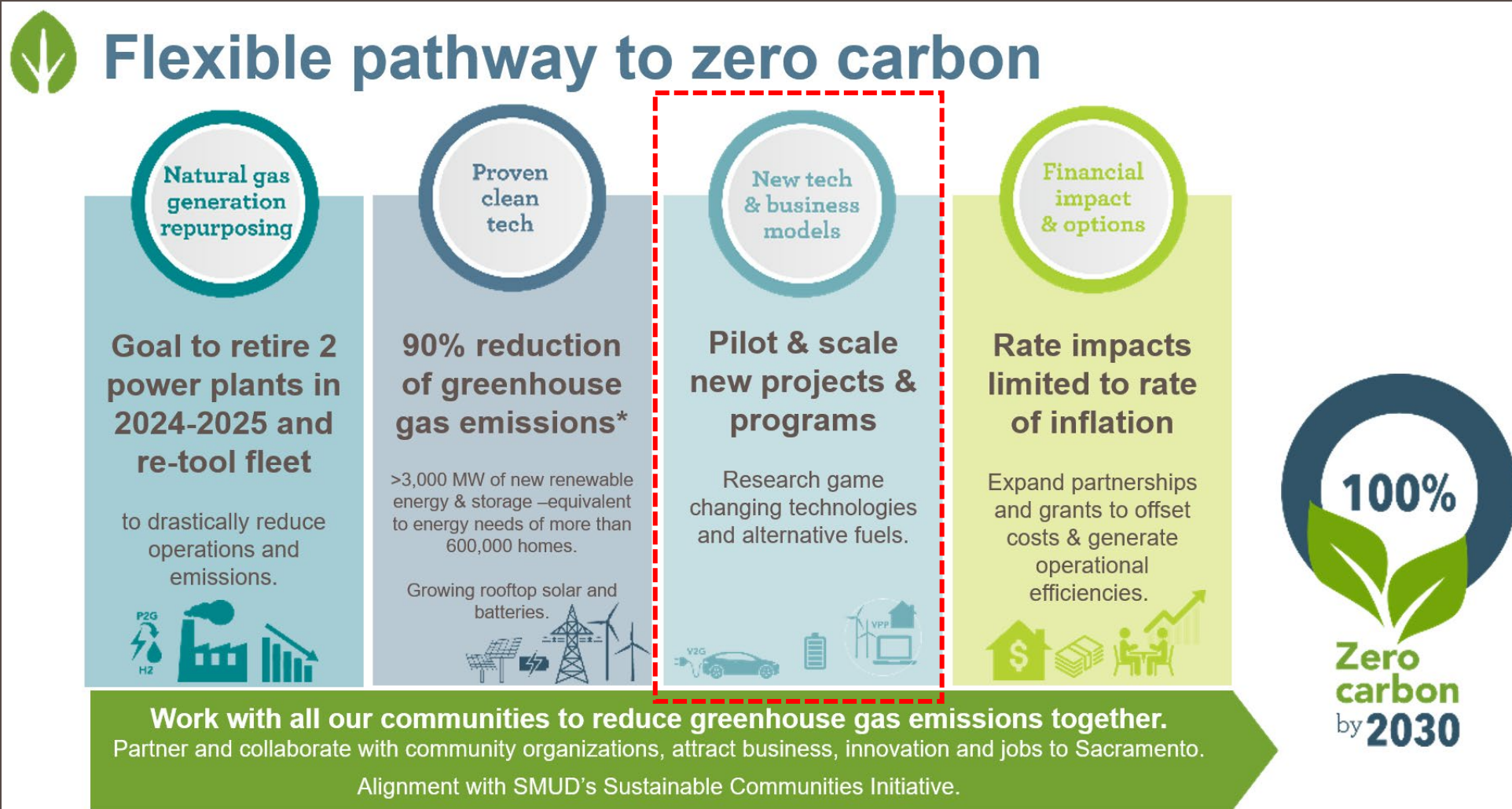
Accept the monitoring report for **Strategic Direction SD-10, Innovation.**

Board Policy Committee and Special SMUD Board of Directors Meeting
Wednesday, October 12, 2022, scheduled to begin at 5:30 p.m.
Virtual Meeting (online)

SD-10 Innovation

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.

Aligning to the Zero Carbon Plan



Innovation Project Portfolio

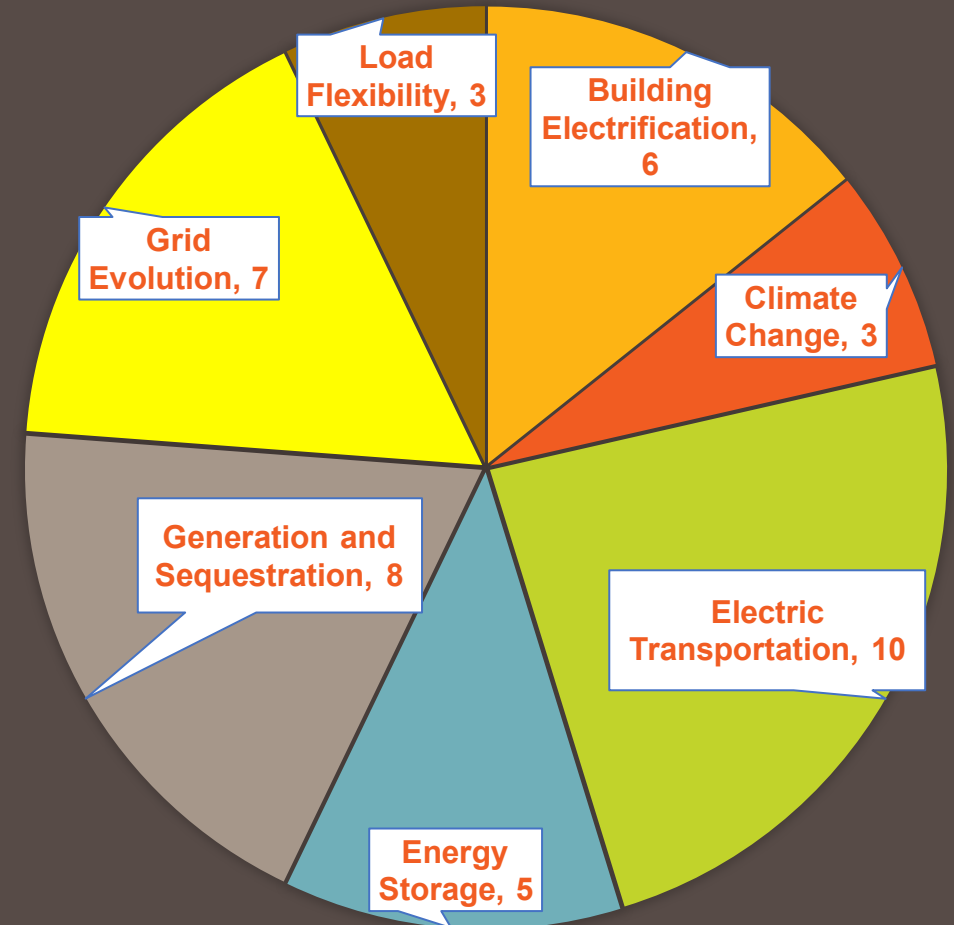
New tech & business models

Pilot & scale new projects & programs

Research game changing technologies and alternative fuels.



42 Projects since September 2021



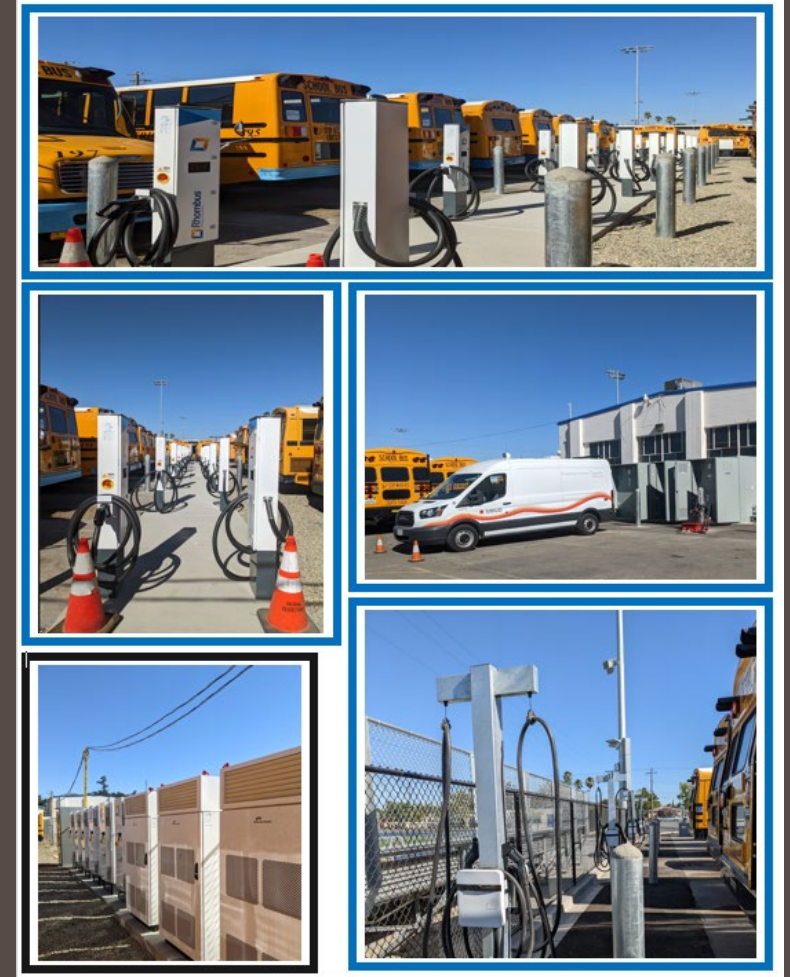
Electric Transportation

Support transportation electrification

Mitigate grid impacts

Evaluate EVs as a utility battery (V2G)

- Installed chargers for Twin Rivers USD project
- Launched Managed EV Charging project with Ford, GM, and BMW
- Ordered 5 Zeus Medium Duty EV Chassis trucks

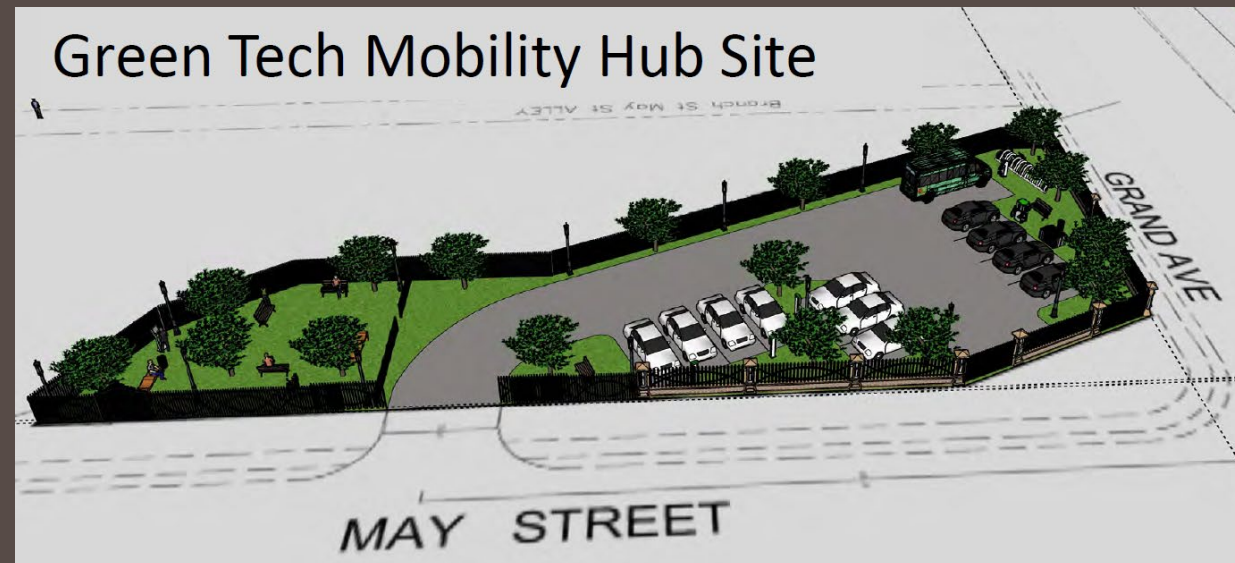


Electric Transportation

Support transportation electrification

Expand access

- Awarded \$2.2M CEC REACH Grant for ChargeReady Community project
 - Deploy 108 EV chargers at 6 multifamily properties selected by Mutual Housing California
- Completed site construction and paving for Del Paso Mobility Hub
 - Next steps are interconnection and charger installations.



Building Electrification & Load Flexibility

Mitigate grid and customer impacts	Customer engagement	DERs for load flexibility
<ul style="list-style-type: none">• Examining solutions for heat pump water heater technology and segment gaps<ul style="list-style-type: none">➤ 120V units and central system demonstrations• Aligning on nationwide utility & industry standards through the Advanced Water Heating Initiative• Evaluating impacts from the launch of My Energy Optimizer smart thermostat control program<ul style="list-style-type: none">➤ Engage beyond Time Of Day & events messaging• Partnering with UC Davis and Panasonic to pilot the EnergyKit home energy management system		



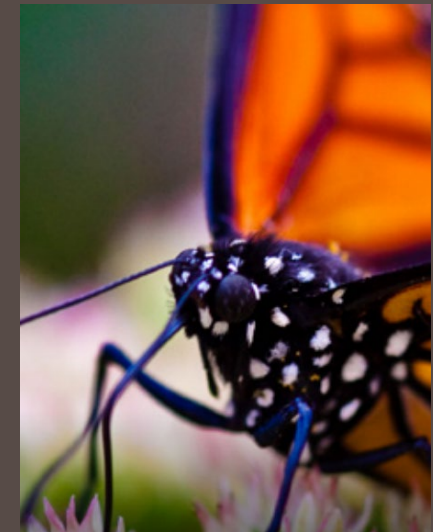
Energy Storage & Climate Change

Operationalize storage as a grid & economic resource

Energy Storage to address variability

Investigate climate adaptation

- Completed construction of SMUD's 4MW battery storage system at Hedge
- Conducted Long Duration Energy Storage assessment
 - Pursuing flow batteries - ESS partnership announcement
 - Secondary technology partner selection via upcoming RFI
- Implemented a generation site habitat partnership with UC Davis and EPRI
 - Introducing native plants & pollinators



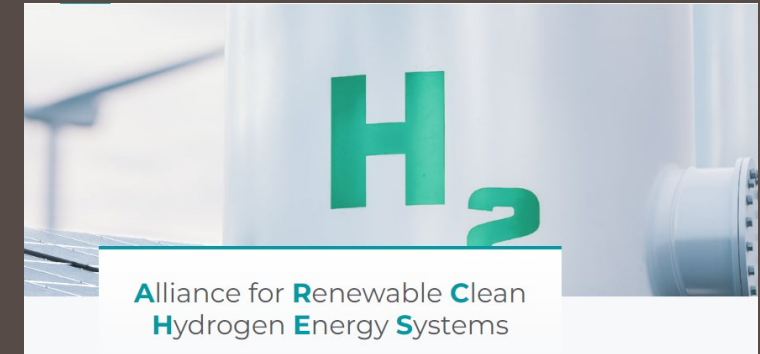
Generation & Grid Evolution

Grid visibility & control of DERs

- Implemented advanced software solution for solar smart inverter interconnections
- Installed and began testing smart inverters for grid applications
- Completed analysis of alternative generation fuels
 - recommending Renewable Natural Gas and Hydrogen
- Partnering with DOE on hydrogen blending research
- Established a partnership connecting NorCal & SoCal efforts for joint pursuit of DOE hydrogen funding (ARCHES)
- Exploring projects for Carbon Capture & Sequestration

Alternative fuels

Biomass & carbon sequestration



Conclusion

Request the Board accept the SD-10 Monitoring Report.