

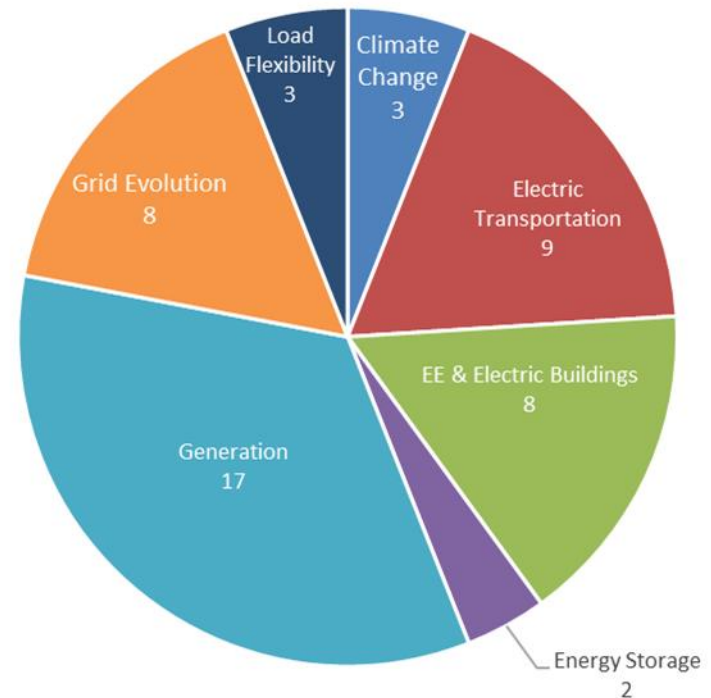
Exhibit to Agenda Item #4

Board Policy Committee Meeting and Special SMUD Board of Directors Meeting
Wednesday, September 11, 2019 scheduled to begin at 5:30 p.m.
Customer Service Center, Rubicon Room

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.

ESR&D Total Projects: 50



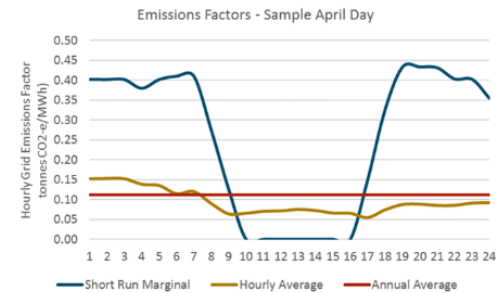
Electric Transportation

- Expanded Commercial EV to support fleets
- Teamed with CEC (CALeVIP) to provide higher rebates
- Deployed Olli, self-driving electric shuttle at Cal Expo
- Increased EV miles driven and education with Uber
- Provided consultation for medium and heavy duty fleets



Energy Efficiency & Electric Buildings

- Developed tool that calculates hourly carbon impacts of efficiency and electrification
- Established energy, peak load, and bill savings from optimization of thermostats and water heaters
- Installed SkyCool radiative panels to measure increase in efficiency



Energy Storage

- Established new programs:
 - Residential and commercial behind the meter batteries
 - Commercial StorageShares
 - 4 MW utility-scale battery
 - Commercial thermal energy storage controls
- Procured 2.02 MW of 9 MW CEC commitment



Generation

- Developed Community SolarShares
- Developed first-of-a kind process with CARB to optimize Low Carbon Fuel Standard Credits
- Preconfiguring and Controlling Inverter Set-Points Tool (PRECISE)
- Developed blueprint to convert existing biomass to produce RNG from wood wastes



September 11, 2019 6

Climate Change

- Completed Living Future Accelerator
- Secured grant for natural refrigerant system
- Validated land-based carbon assessment against CARB's inventory



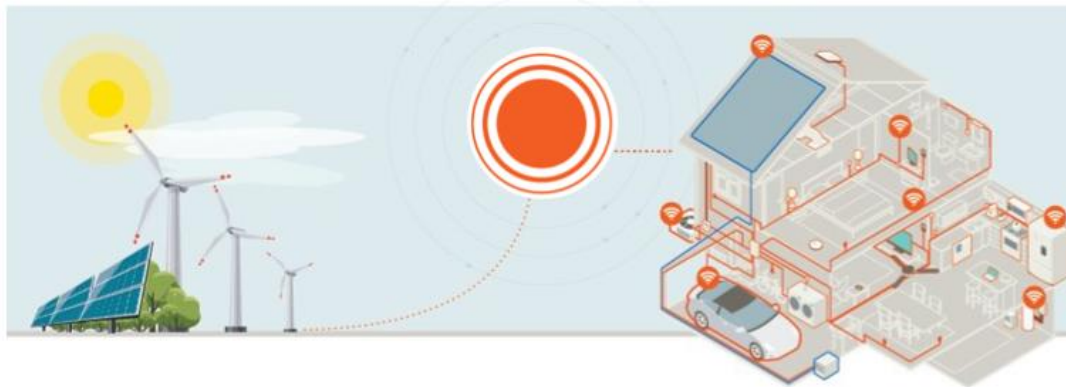
Board Policy Committee and Special SMUD Board of Directors Meeting

Grid Evolution

- Contributed to California Rule 21 and Title 24
- Developed dynamic pricing integration with automated DER

Load Flexibility

- Updated controls for SMUD's thermal energy storage system to test operation with pricing dispatch



Request the Board accept the SD-10 Monitoring Report.