

ET Summit 2024

Presented by





Energy Innovation
Clean Transportation

Fostering Clean Transportation Innovation

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IT'S EASY TO
LOVELECTRIC

Utility Context

Providing Clean, Safe, Reliable Energy

More than an energy company, we're a people company

San Diego Gas & Electric® is an innovative energy company that provides clean, safe, and reliable energy to better the lives of the people we serve in San Diego and southern Orange counties.



3.7 MILLION CONSUMERS

We distribute energy service to 3.6 million people through 1.4 million electric meters and 873,000 natural gas meters in San Diego and southern Orange counties.



4,000+ EMPLOYEES

We employ more than 4,000 people who work every day to deliver the energy our customers need.



4,100 SQUARE-MILE SERVICE AREA

We supply power to a population of 1.4 million business and residential accounts in a 4,100 square-mile service area spanning 2 counties and 25 communities.



Innovation Collaboration Near-Term Strategies



Customers can help us learn about load growth, decarb plans, and electrification goals

We must focus on disadvantaged communities, and prioritize communities that need solutions most, making connections through community organizations, trade groups, and more



Partnerships will advance customer and utility electrification goals in our region and state

Tech companies can help pilot advanced solutions for vehicle-to-grid or V2X that support increased adoption of EVs, and other groups like non-profits, government agencies, and more can support this journey



Our Mission

Provide clean, safe, and reliable energy to better the lives of the people we serve in San Diego and southern Orange counties

Innovation Strategic Drivers

Clean Transportation Focus



Enable and accelerate electrification of the transportation sector to support a reliable path to decarbonization



Leverage new technologies and enable clean utility infrastructure to support a reliable path to decarbonization



Enabling Vehicle-to-Grid Innovation

Clean Transportation



SDG&E is piloting Vehicle-to-Grid (V2G) technology to find ways to further ease strain on the grid, reduce costs, and support a path towards net zero

BARRIER

OPPORTUNITY



Funding gaps to purchase bi-directional EV chargers



Support the development of lower-cost V2G-capable chargers and leverage utility programs for funding



Higher cost of V2G-capable equipment and vehicles



Grant & rebate support (State, Federal, etc.) through EV supply incentives and other support



Lack of financial incentive to export power from vehicles



Emergency Load Reduction Programs / New market design required / SDG&E's proposed V2G export rate



Emerging technology and nascent applications



Opportunity for SDG&E as the grid operator to be an innovative leader with V2G in collaboration with other technology providers



Enabling Vehicle-to-Grid Innovation

SDG&E V2G Pilot Example

SDG&E is working with local school districts to electrify school buses and deploy V2G technology through our Power Your Drive for Fleets program



Predictable vehicle behavior - prime for V2G exploration



Reduces energy costs for schools



Supports cleaner air in the community



Enabling Vehicle-to-Grid Innovation

SDG&E Cajon Valley V2G Pilot



PROJECT PARTICIPANTS



NUVVE



LION



energetics

EPI

Baker
Electric

CADMUS



Collaboration began in 2018 between SDG&E, Nuvve, Lion Electric, and the Cajon Valley Union School District



SDG&E provided the infrastructure and funding while serving as the lead



Cajon Valley School District procured Lion buses and agreed to tests



Nuvve provided technology and software to control charging & discharging





Thank you for your time today