Exhibit to Agenda Item #1

Provide the Board with informational internal and external presentations and discussion on **Vehicle-to-Grid (V2G) Technologies**.

Board Strategic Development Committee and Special SMUD Board of Directors Meeting

Tuesday, April 7, 2026, scheduled to begin at 6:00 p.m.

Auditorium, SMUD Headquarters Building

Agenda

Vehicle Grid Integration Council (VGIC)

- About VGIC
- Market trends
- Policies and standards

SMUD presentation

- Local market potential for Vehicle to Grid (V2G)
- SMUD's Vehicle-Grid Integration initiatives
- Looking ahead

Vehicle to Grid-capable Light Duty Vehicles

AVAILABLE NOW

- Ford F-150 Lightning
- Nissan Leaf
- Hyundai Ioniq 6
- Kia EV9
- Genesis GV60
- Lucid Air
- Mitsubishi Outlander PHEV
- Tesla Cybertruck

COMING IN 2026
(North America)

- GM Silverado EV RST
  Sierra EV Denali Ed.1
  Blazer EV, Equinox EV
- Cadillac Lyriq
- Escalade IQ, Optiq
- Hyundai Ioniq 9
- Stellantis
  RAM 150 REV

12,076 Light Duty new registrations in Sacramento County in 2025*

76,618 Electric Vehicles in Sacramento County at end of 2025*

**Source: Electric Power Research Institution (EPRI) Experian Vehicle in Operation data*

Heavy Duty Electric Vehicles

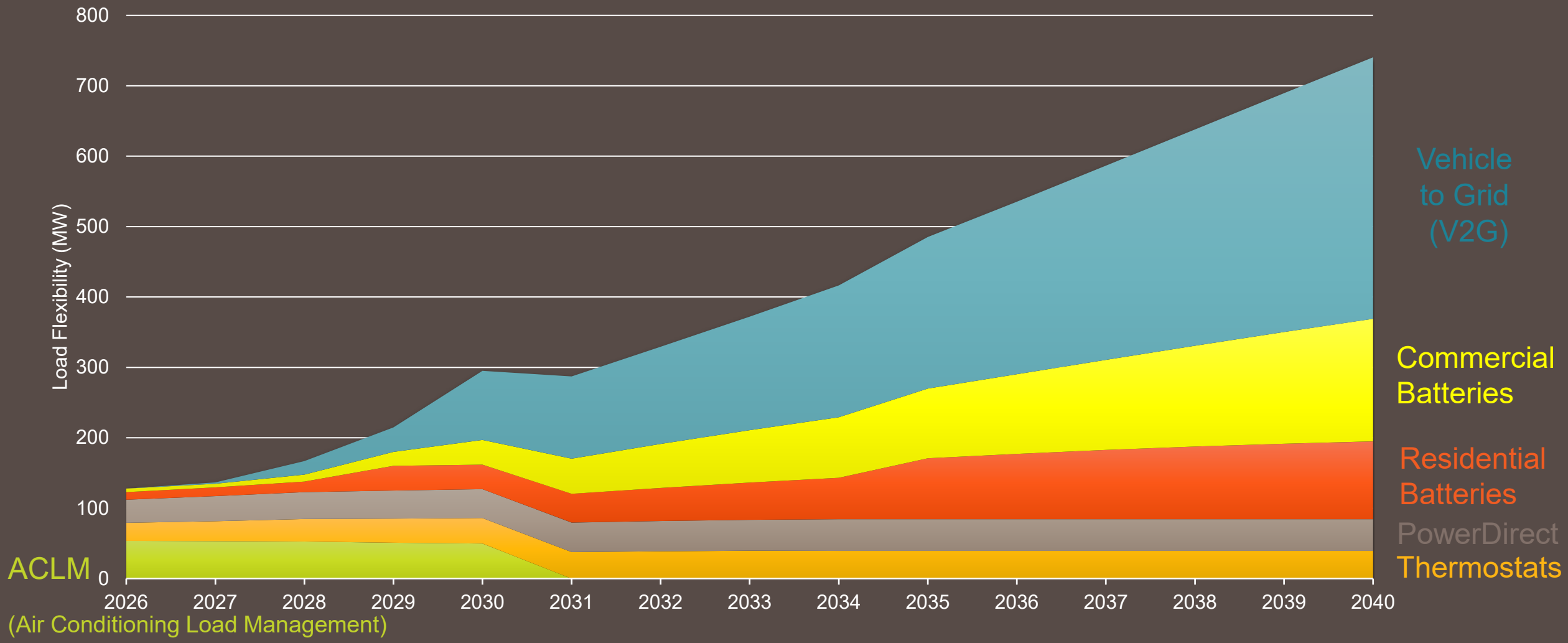
Policies encouraging electric school bus adoption

- Senate Bill 59 Battery electric vehicles: Bidirectional Capability
- Advanced Clean Fleets
- Assembly Bill 579 School Buses: Zero-Emission Vehicles

Incentives

- Clean Truck and Bus Voucher Incentive Program (expiring)
- CA Clean Fuel Rewards (replacing expiring Incentive Program, funded by Low Carbon Fuel Standard credits (LCFS)

Potential SMUD Program MWs (forecast)



Value proposition of Vehicle-Grid Integration

CUSTOMER VALUE

- Utility program incentives (increased ROI)
- V2H resiliency
- Energy Management

BULK GRID VALUE

- Resource adequacy (capacity)
- Wholesale market arbitrage (energy)

DISTRIBUTION SYSTEM VALUE

- Local congestion relief
- Distribution infrastructure deferral

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TRADE OFFS:

Longer Average Charge Times

Vehicle Location Certainty

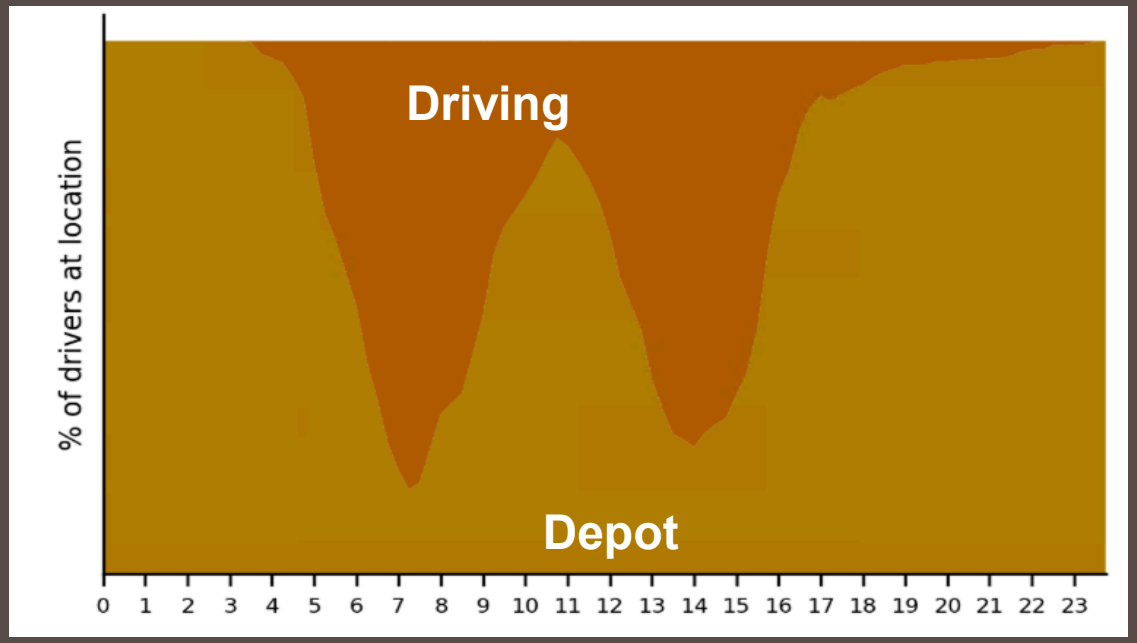
Potential Increase in Battery Degradation

*Vehicle-to-Home (V2H)
*Return On Investment (ROI)

Why start with Electric School Buses

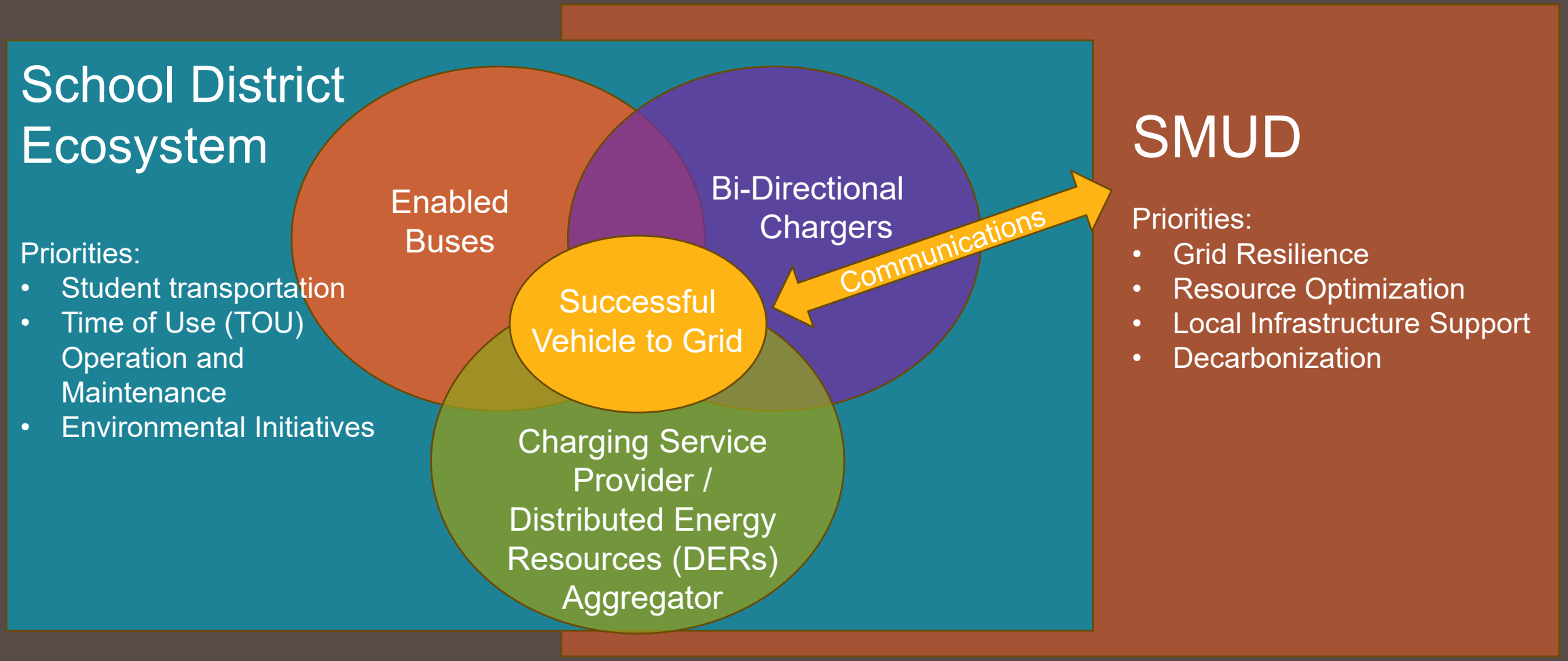
Early market opportunity

- Over 800 school buses across 13 school districts
- 111 deployed Electric School Buses as of Dec. 2025
- As many as 72 buses Vehicle to Grid-capable

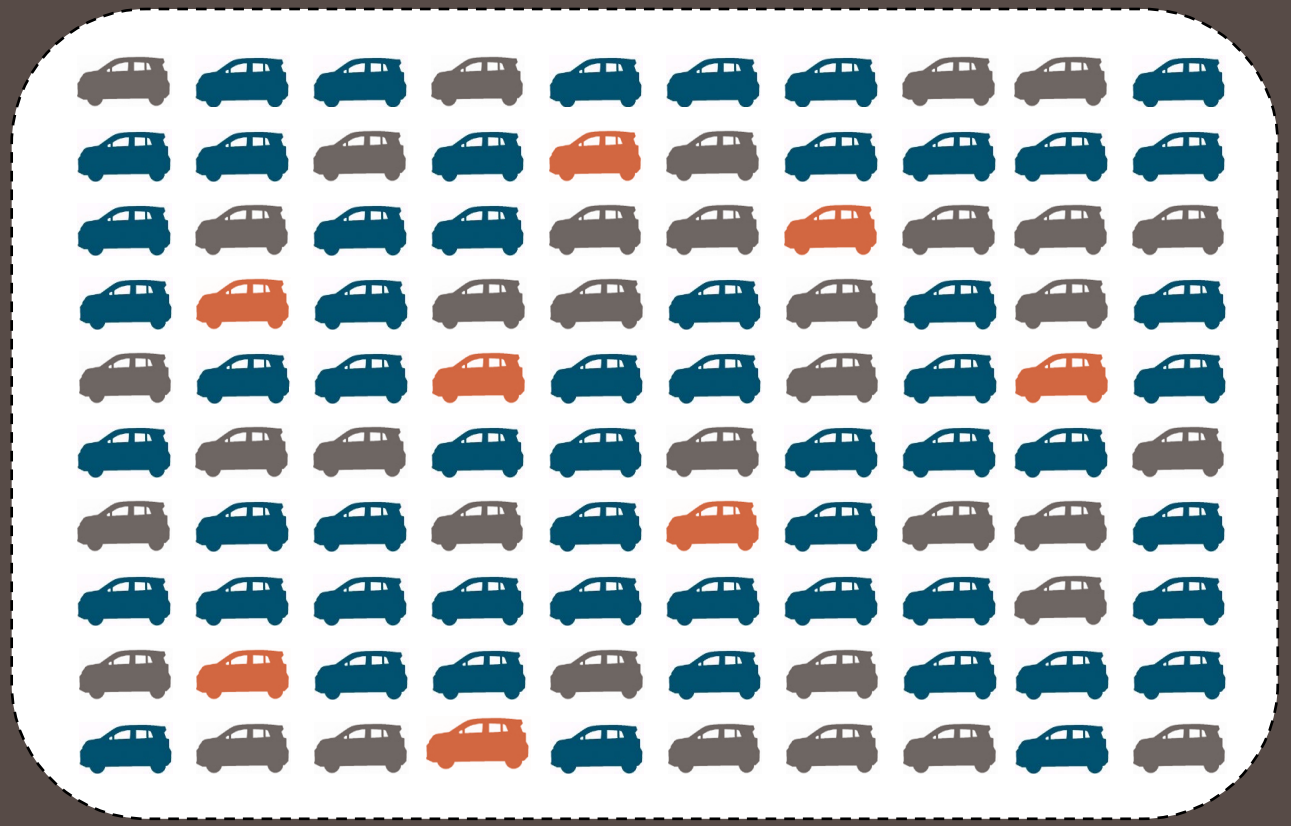


Standard School Bus Duty cycle

Vehicle to Grid Requires an Integrated Ecosystem



Managed Charging Reliability

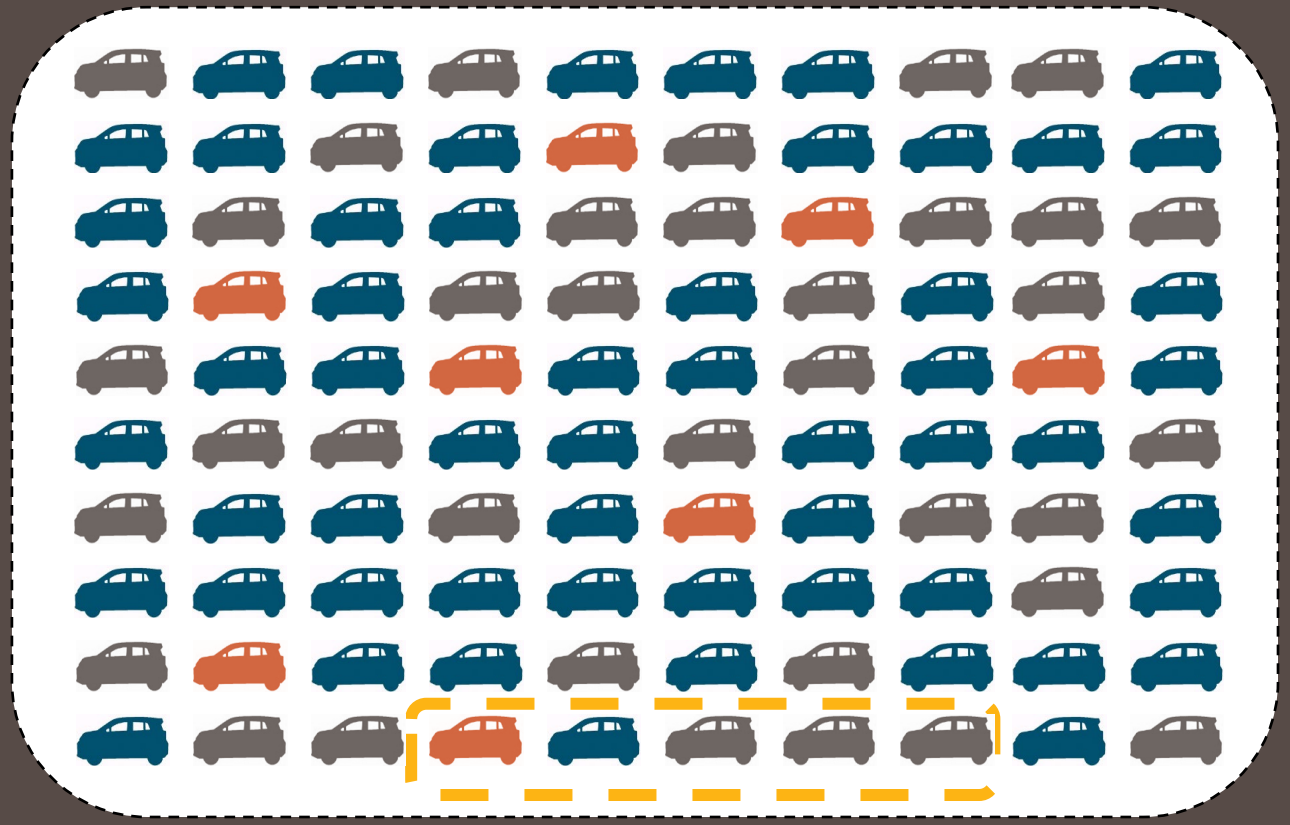


Snapshot of Electric Vehicle (EV) activity during a random Demand Response (DR) event for an example portfolio of 100 enrolled EVs

(Demand Response hours typically coincide with on peak periods (5PM - 8PM) but may vary based on grid needs.)

- Enrolled EV **charging** during DR hours
- Enrolled EV **plugged in** during DR hours
- Enrolled EV **not at home** during DR hours

Impact of Aggregation Size on Load Response Certainty



Enrolled EV **charging** during DR hours

Managed Charging (V1G): 7 kW; Vehicle to Grid Export (V2G): 14 kW

Enrolled EV **plugged in** during DR hours

V1G: 0 kW; V2G: 7 kW

Enrolled EV **not at home** during DR hours

V1G (managed charging): (7 kW x 1 EV + 0 kW x 4 EVs) / 5 EVs = 1.4 kW/EV

V2G (Vehicle to Grid export): (14 kW x 1 EV + 1 vehicle x 7 kW +0 kW x 3 EVs) / 5 EVs = 4.2 EVs

Essential Vehicle to Grid Components

Electric Vehicles:

- Bi-directional charging hardware/firmware enabled
- Feature codes, manufacturer upgrades as needed

Charger:

- Must be Vehicle to Grid-capable, UL-1741-SB listed, California Energy Commission (CEC)-approved
- Sufficient power to support duty cycles and export at end-of-day

Communication Pathways :

- Provides communication/control between chargers, vehicles, and Vehicle-Grid Integration platforms
- Distributed Energy Resource Management System (DERMS) integration for SMUD visibility and control

Operational Alignment:

- EVs parked and plugged in when grid export is needed
- Scheduling to ensure availability for Vehicle to Grid export events
- Adequate battery capacity

Vehicle-Grid Integration Roadmap