



Item 05: Grid-Supportive Transportation Electrification GFO-23-306

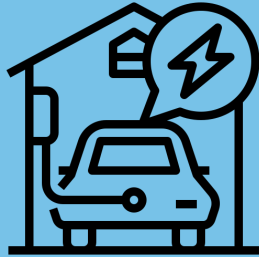
November 13, 2024 Business Meeting

Katelynn Dinius, Air Resources Engineer
Energy Research and Development Division
Energy Systems and Transportation Branch



Solicitation Overview

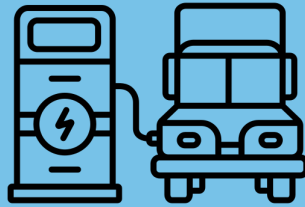
Group 1: Managed charging in response to local grid conditions



Proposed today: Two projects (out of four proposed awards)



Group 2: Improved efficiency and scalability of high-power charging



Proposed today: Two projects (out of two proposed awards)



Group 3: Flexible siting of charging



Proposed today: Zero projects (out of two proposed awards)



Efficient use of existing electrical infrastructure

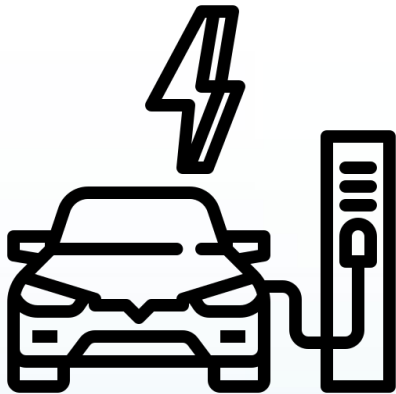


Benefits to Californians

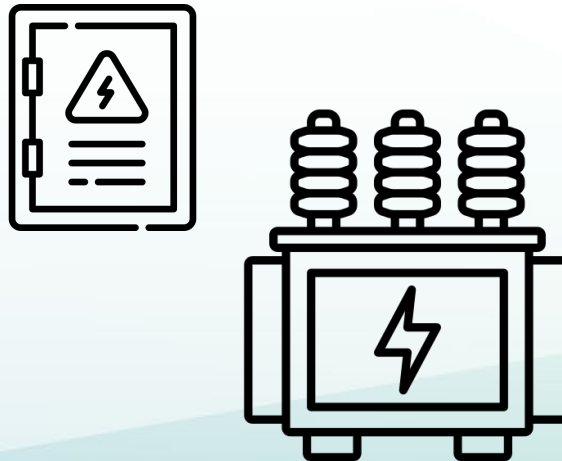
Efficient use of existing electrical infrastructure



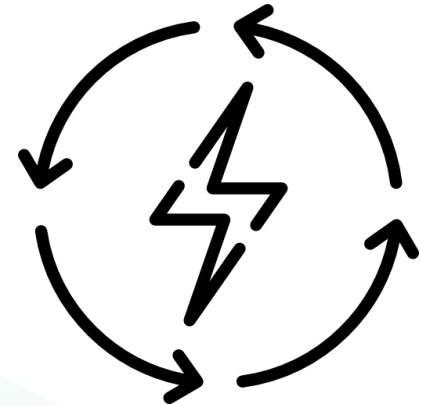
Faster energization



Avoided customer and utility upgrades



Reduced energy losses

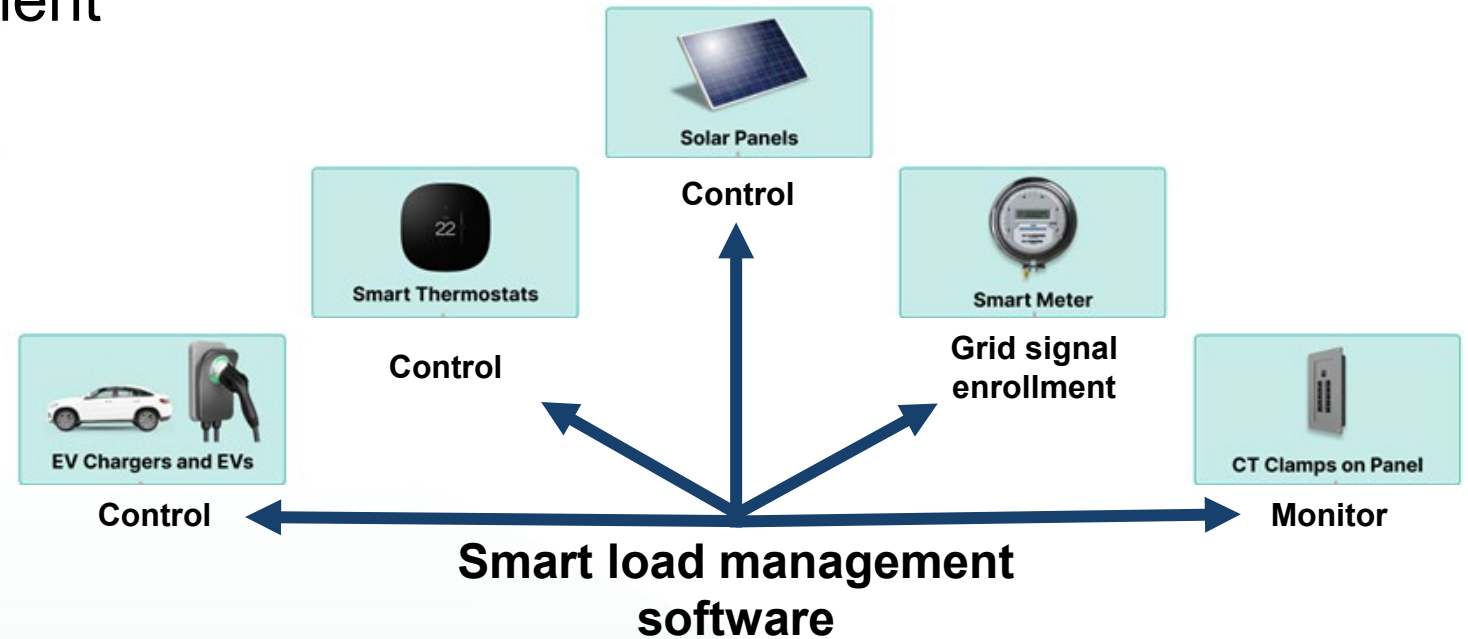




5a. NeoCharge Incorporated



- Smart home load management software
- Respond to grid signals and home loads
- Demonstrate at 200 residential homes throughout California



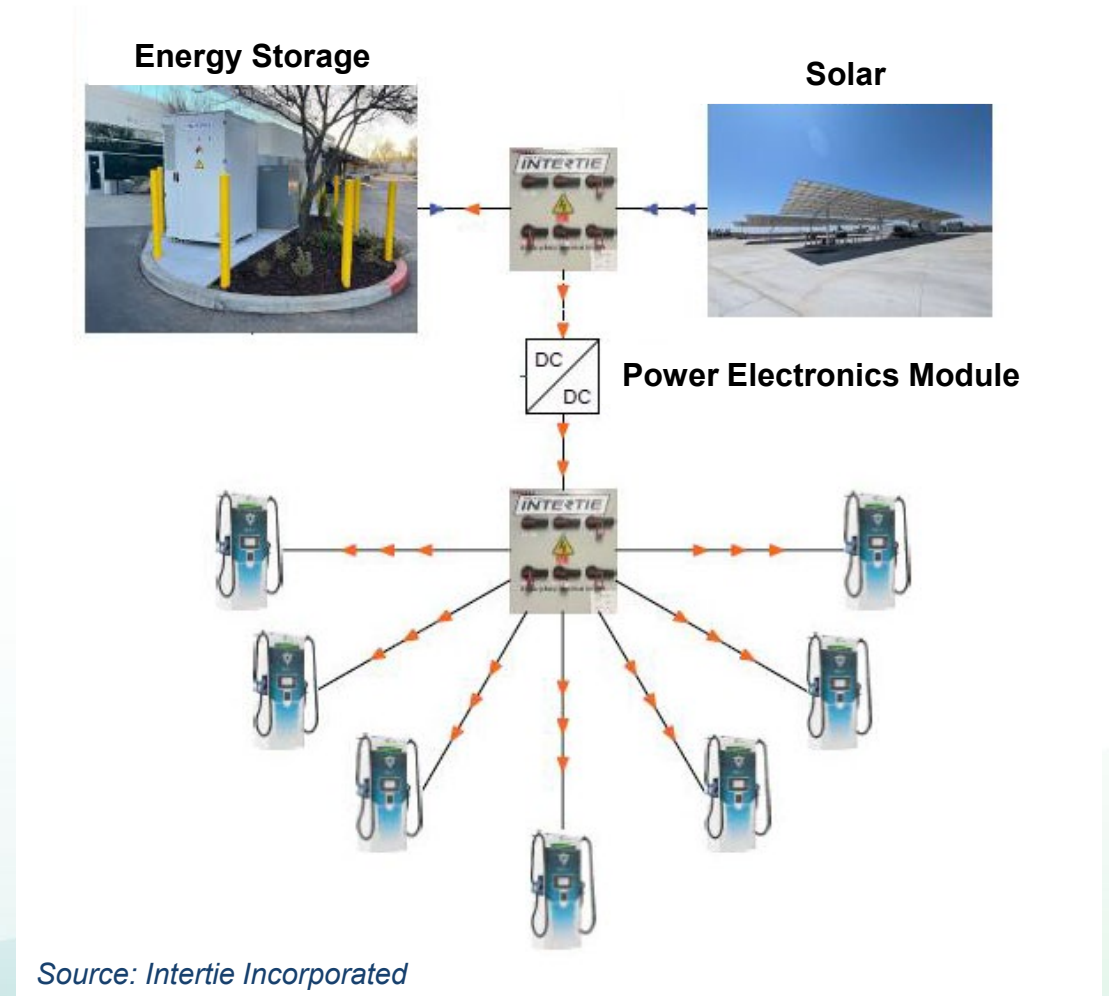
Source: NeoCharge Incorporated



5b. Intertie Incorporated

INTERTIE

- Power electronics module to connect distributed energy resources to chargers
- Enable connection to existing electrical panel
- Demonstrate novel fast charging in Fresno County



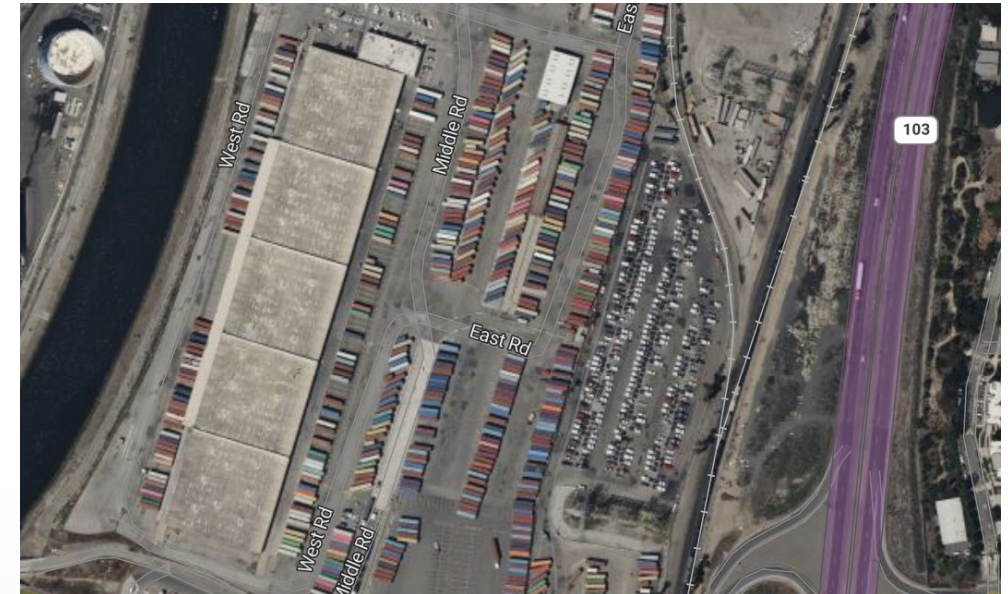


5c. RocketTruck, Inc.



- Innovative power conversion architecture with solid state transformer
- Improve efficiency, reduce footprint, and simplify integration
- Demonstrate at drayage truck charging site near Ports of Los Angeles and Long Beach

Demonstration site



Source: Google Maps



5d. GoPowerEV Inc.



- Automated load management plus transformer monitoring
- Control charging loads based on distribution conditions
- Increase charger installations and avoid upgrades
- Demonstrate at 4 multi-unit dwellings in Ontario, Redwood City, and South San Francisco

Transformer monitoring



Source: Ubicquia

Multi-unit dwelling



Source: Google maps



Staff Recommendation

- Adopt staff's determination that projects are exempt from CEQA.
- Approve grant agreements.