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Data Collection

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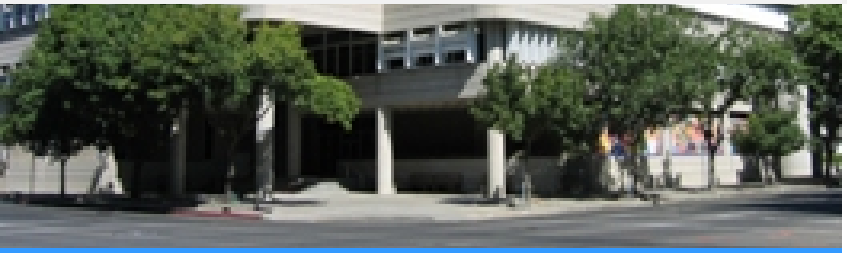
Electric Vehicle Infrastructure



Outline

I. Data Generators within ARFVTP

II. Objectives

III. Charging In California

IV. Data Source

VI. Development

Alternative and Renewable Fuel and Vehicle Technology Program

- Award recipients:
  - Public agencies (local, state, and federal)
  - Destination businesses
  - Workplaces
  - EVCS providers
  - Regional Readiness coalitions
  - “Fueling” stations or plazas
- Currently, agreements require 6 months of “data collection” – a glimpse in a short period of time

Objectives

Electric Vehicle Charging Stations (EVCS)

- Location/direction suitable for mapping
- Descriptive information on site (business, workplace, apartment, park, etc.)

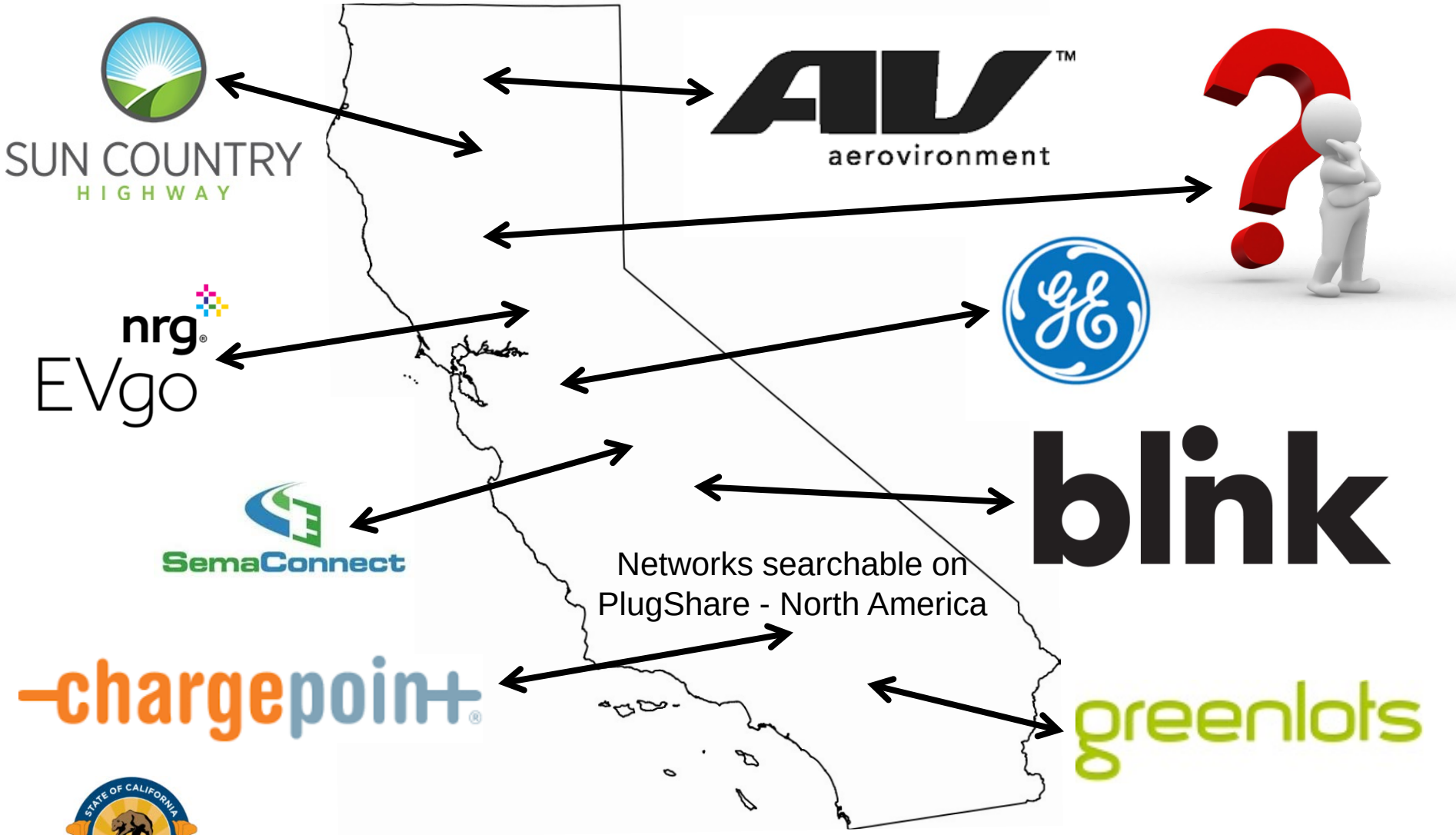
Electric Vehicle Service Equipment (EVSE)

- Ratings in kW
- Cost
- Charge events over defined time period

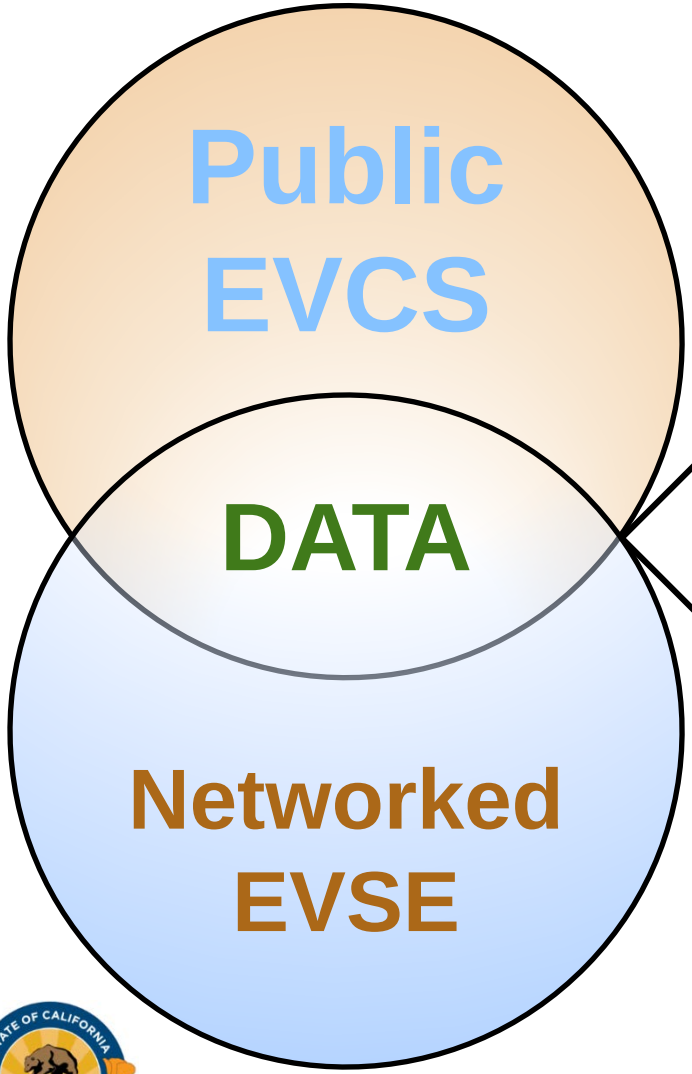
Objectives

- Need better data collection and analytics to:
  - Track impact of investments
  - Monitor charger usage
  - Be able to pinpoint areas for charger deployment
  - Determine how charger deployment supports battery electric vehicle deployment
  - Determine alternative deployment options for sectors that present unique challenges
  - Determine what sector of drivers are served by different types of chargers and locations (commuter, visitor, long-distance traveler)

Charging Networks Operating In California…



What are we interested in



- Number of sessions
- Session time stamps
- Charging duration
- Energy delivered
- Charging level
- Connector type

What are we planning to do

- Create an automated data collection repository of networked EVCS
- Frequently update the database – Daily?
- Analyze EVCS charging events by individual station
- Use the data to strategically plan for additional sites that will increase the rate of plug-in EV adoption towards the goal of ensuring 1.5 million vehicles are on California's roadways by 2025.

Questions we would like to answer

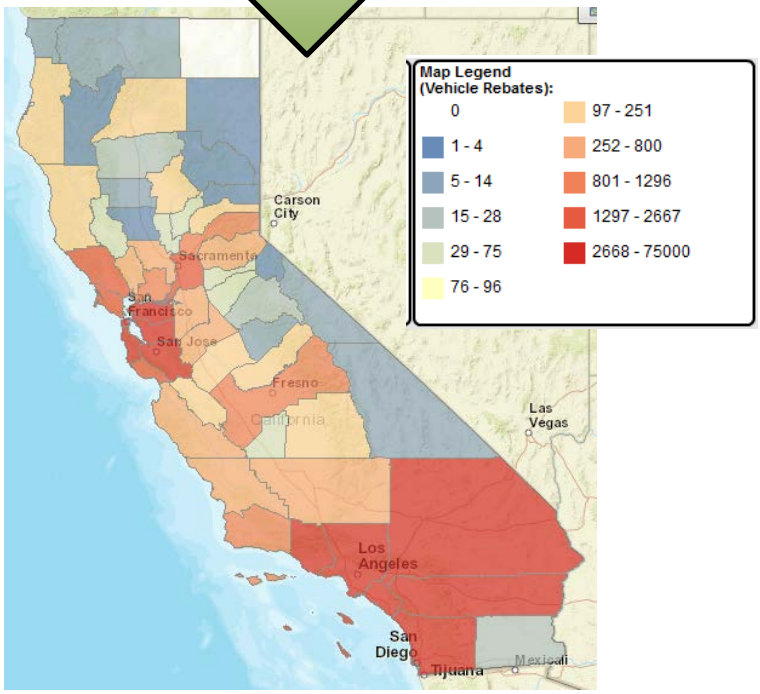
Usage of L2 vs DCFC?

Station Utilization?

Analyze the associated data from the EVCS/EVSEs point of view

Time of peak charging sessions?

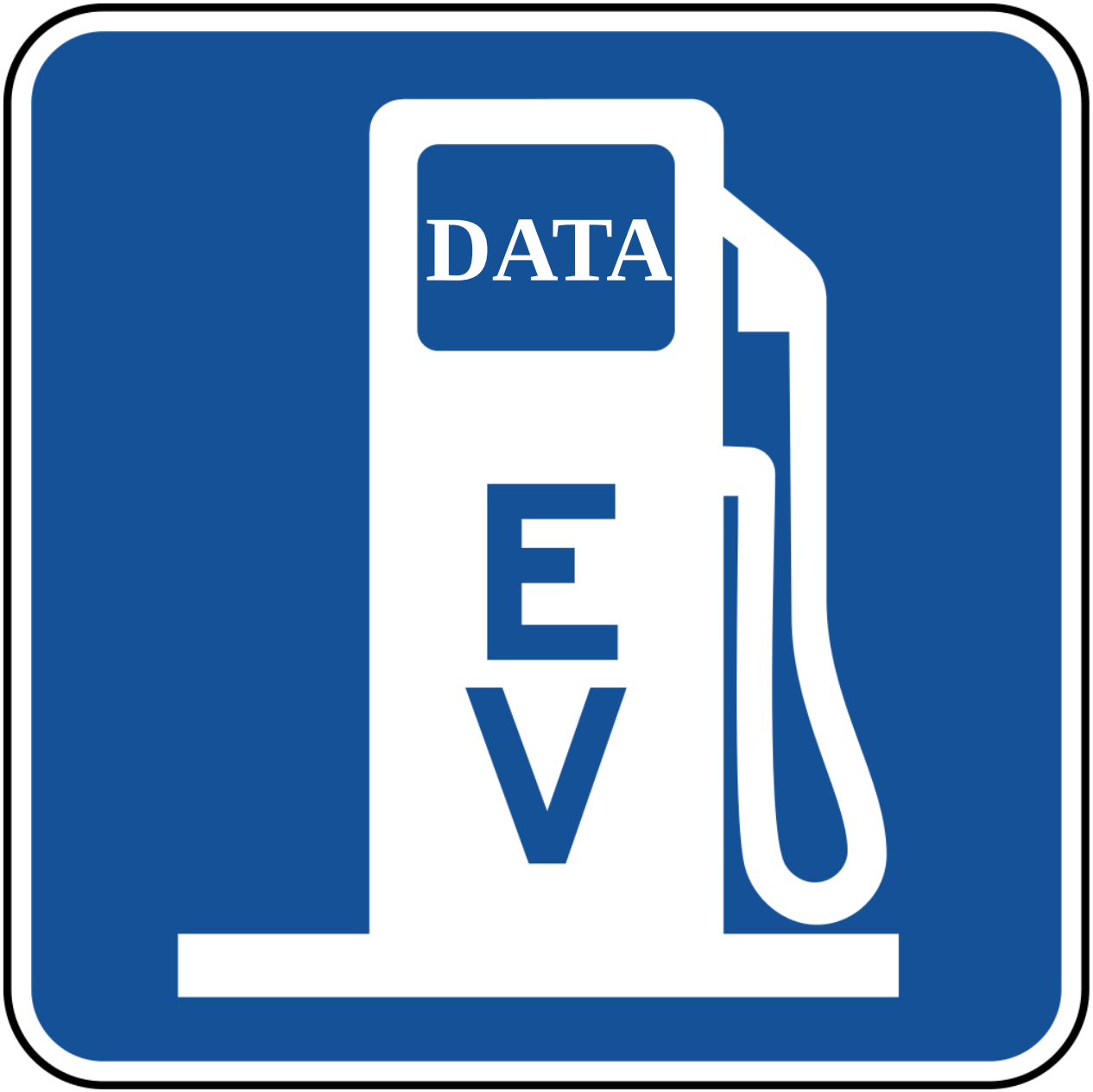
Example of tracking rebates issued by the Clean Vehicle Rebate Project (CVRP)



https://cleanvehiclerebate.org/eng/cvrp-rebate-map

Partnerships for Data

- Collecting data from different sources
- Ability to validate
- Getting data from non-networked chargers
- Creating an automated data collection system for networked EVCS
- Frequency of data collection – Daily?
- Being able to analyze EVCS charging events by individual station
- Using the data to strategically plan for additional sites that will increase the rate of plug-in EV adoption towards the goal of ensuring 1.5 million vehicles are on California's roadways by 2025


DATA
EV