

# **APS Electric Vehicle Charging Pilots**

C.J. Berg

Energy Innovation Analyst

Customer Technology – Product Development



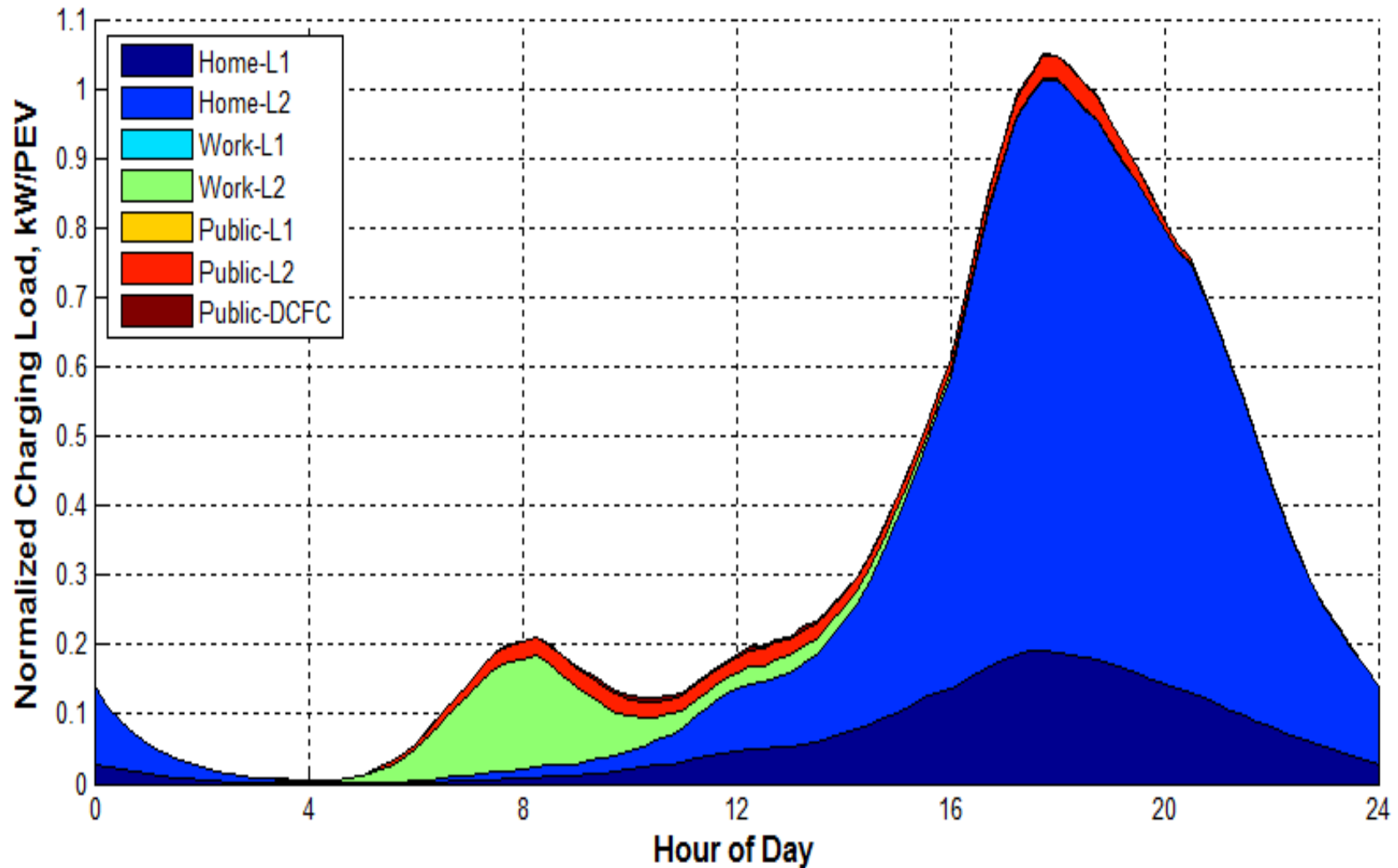


## **APS Electric Vehicle Charging Station Pilots**

- Encourage EV adoption through education
- Avoid charging during peak hours
- Build, own and operate EV infrastructure
- Analyze usage data and EV driver behavior
- Educate customers regarding the benefits of electric passenger and fleet vehicles
- Develop an understanding of the impacts of chargers to the grid
- Safely operating electrical equipment is a core competency of APS
- Reduce range anxiety
- Prepare for market inflection
- Strategic investments
- Partner with industry experts



## Unmanaged Passenger EV Charging Load Shape





## **Level 2 EV Charger Pilot 2019** **Fleet, Workplace, Multi Unit Dwelling**

2019 investment - \$2.7m

- Workplace, Fleet and Multiunit Dwelling sites
- Commercial and municipality customers
- Partnering with Clipper Creek (working on contract / not publicly announced)
- Installing approximately 150 – 200 plugs

January - March

Plan and customer  
agreement  
developed

April

Customer  
applications begin  
Vendor chosen

May

Execute contract  
with vendor  
Designs completed

June – December

Construction



## Level 3 EV Charger Pilot 2019

2019 investment - \$3.6m

- Strategic investments in DC fast chargers
- Installing approximately 40 plugs in strategic locations to reduce range anxiety
- Customers: Commercial, municipalities, EV owners, EV charging companies
- Looking into L4 opportunities with partners
- Conducting RFQ to identify strategic partner May 2019

April

Release RFP

May

Partner  
Cobrand sites  
Obtain data

June

June  
Construction  
begins on APS  
identified sites  
Tariff filed

July – December

Construction  
Own chargers



## Navigant Studies

2019 investment - \$.7m

- **Phase 1 - Passenger EV growth and load impacts**
- **Phase 2 - Trucking and Interstate charging and load impacts**
- **EV penetration maps updated quarterly**

April

Purchase  
request  
completed

May

Phase 1 report

June

Modeling tool  
developed

July – December

Phase 2 Report

## Contact Information

- C.J. Berg
  - [christopher.berg@aps.com](mailto:christopher.berg@aps.com)
  - (602) 250-3857
- Helpful Links:
  - [take charge az](#)
  - [FAQs](#)
  - [electricvehicles@aps.com](mailto:electricvehicles@aps.com)
- Customer Technology Support Team
  - (855) 202-8341