



EV & Bi-Directional Charging Opportunities

July, 2023

Topics

- ★ High Level Trends
- ★ Opportunities & Bottlenecks
- ★ Case Study: Jubilant One 9 Mall Portfolio
- ★ Bi-Directional Charging



High Level Trends

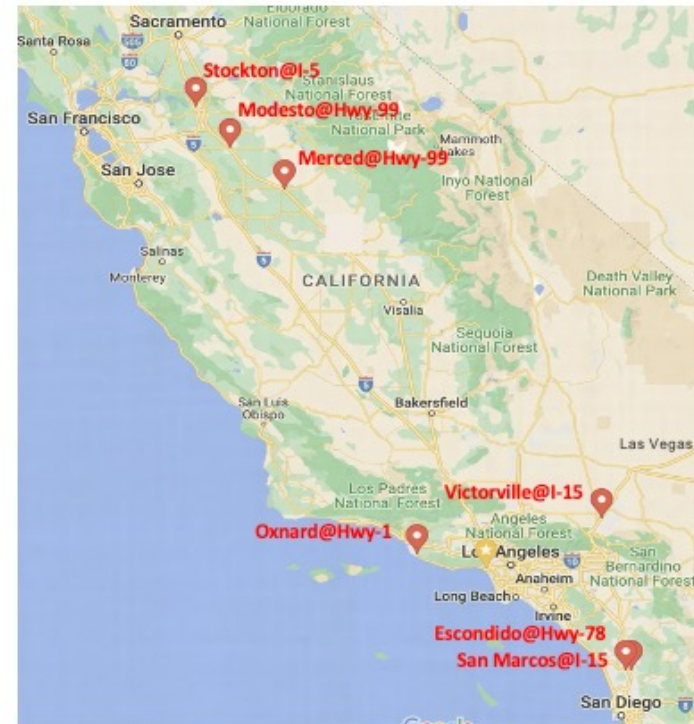
- ★ **EV & EV charging industry is relatively immature**
 - ★ Learning curve for consumers, building owners, sellers
 - ★ Standards emerging – kinda sorta
 - ★ Business models remain unproven
- ★ **IRA & BIL spurring major investment**
 - ★ Mining, manufacturing, more fungible tax credits
- ★ **Project economics are all over the map**

Opportunities & Bottlenecks

- ★ **O: EV adoption can save and make money**
 - ★ Esp. if multiple fed/state/local grants are used
- ★ **B: Utility interconnection can take a long time**
- ★ **B: Electric equipment shortages are causing long project installation timelines**
- ★ **O: Early movers are creating (semi) replicable models**

Case Study: Jubilant One

- ★ 30-year site control at 9 CA Malls close to major highways
- ★ \$4.4M in grant funding secured for first 4 sites
- ★ 20 Level 3 Fast Chargers per site
- ★ 30% ITC
- ★ LCFS Credits



Bi-Directional Charging

- ★ **Bidirectional EVs are already in use around the world**
 - ★ There are currently over 120 demonstrations, pilots, and commercial deployments in 27 countries around the world, incl. California
 - ★ For the past 6 years, Nuvve has piloted daily V2G in Denmark for a municipal fleet of cars and vans
 - ★ Bidirectional home energy systems are available today
- ★ **California SB 233 would mandate Bi-Directional Charging Capability by 2030 for some vehicles**

Thanks!

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