



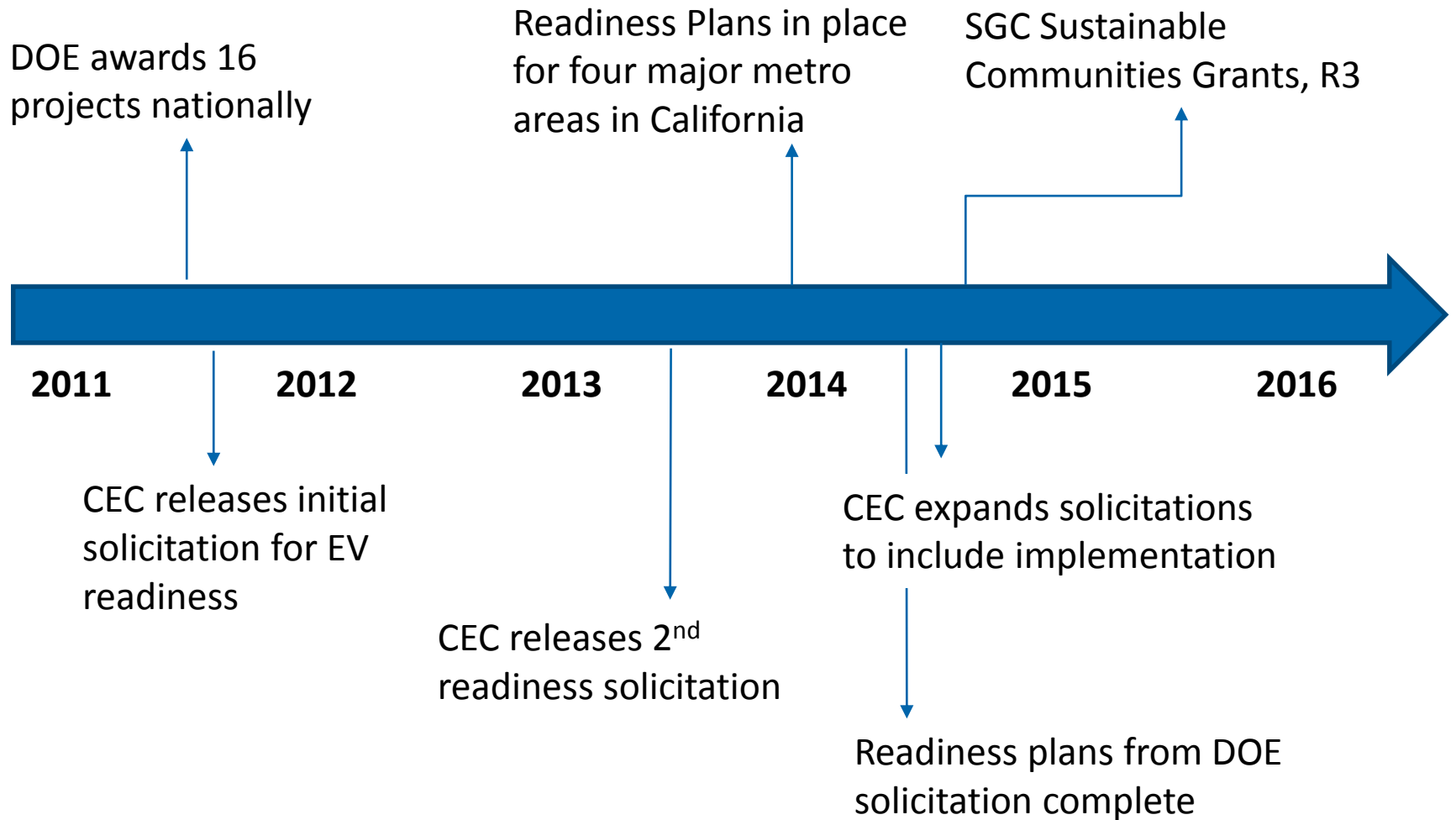
Community Readiness: How Local Can You Go?

Electric Vehicle Symposium & Exhibition
June 19-22, 2016
Montreal, Quebec, Canada

Session 6E – Moving Markets: Electric Drive Across the US

June 21, 2016

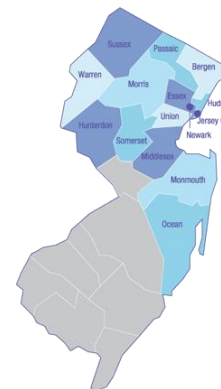
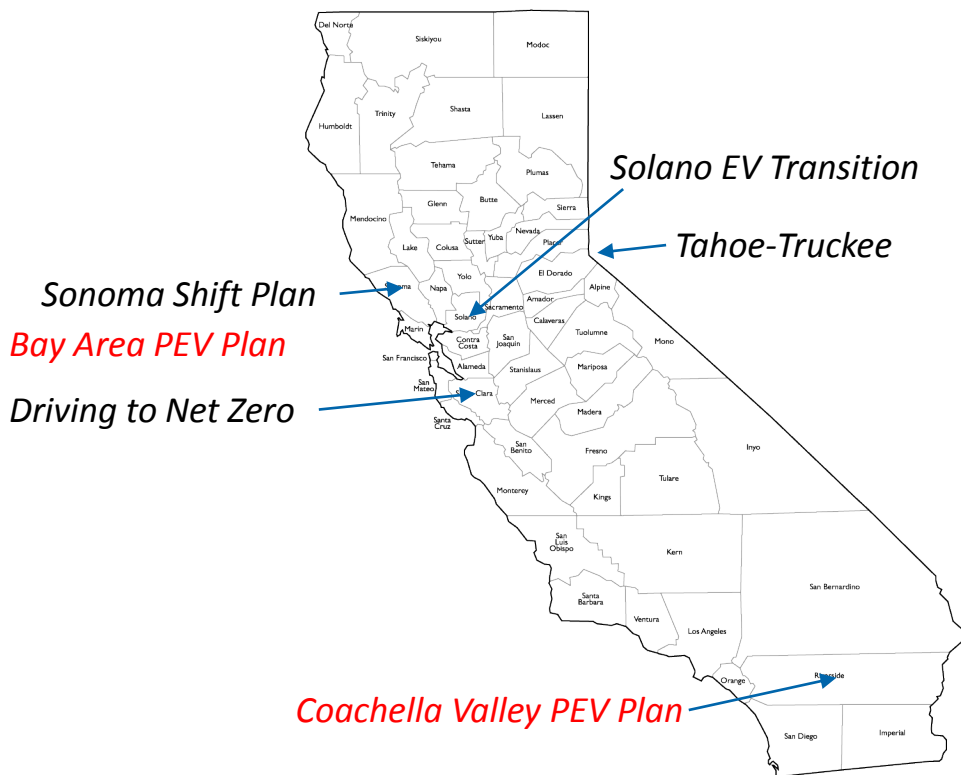
History of Readiness Planning



DOE—Dept of Energy; CEC—California Energy Commission; SGC—Strategic Growth Council

Project Engagements

North Jersey Alternative Fuel Infrastructure



Ready to Roll! Southeastern Pennsylvania

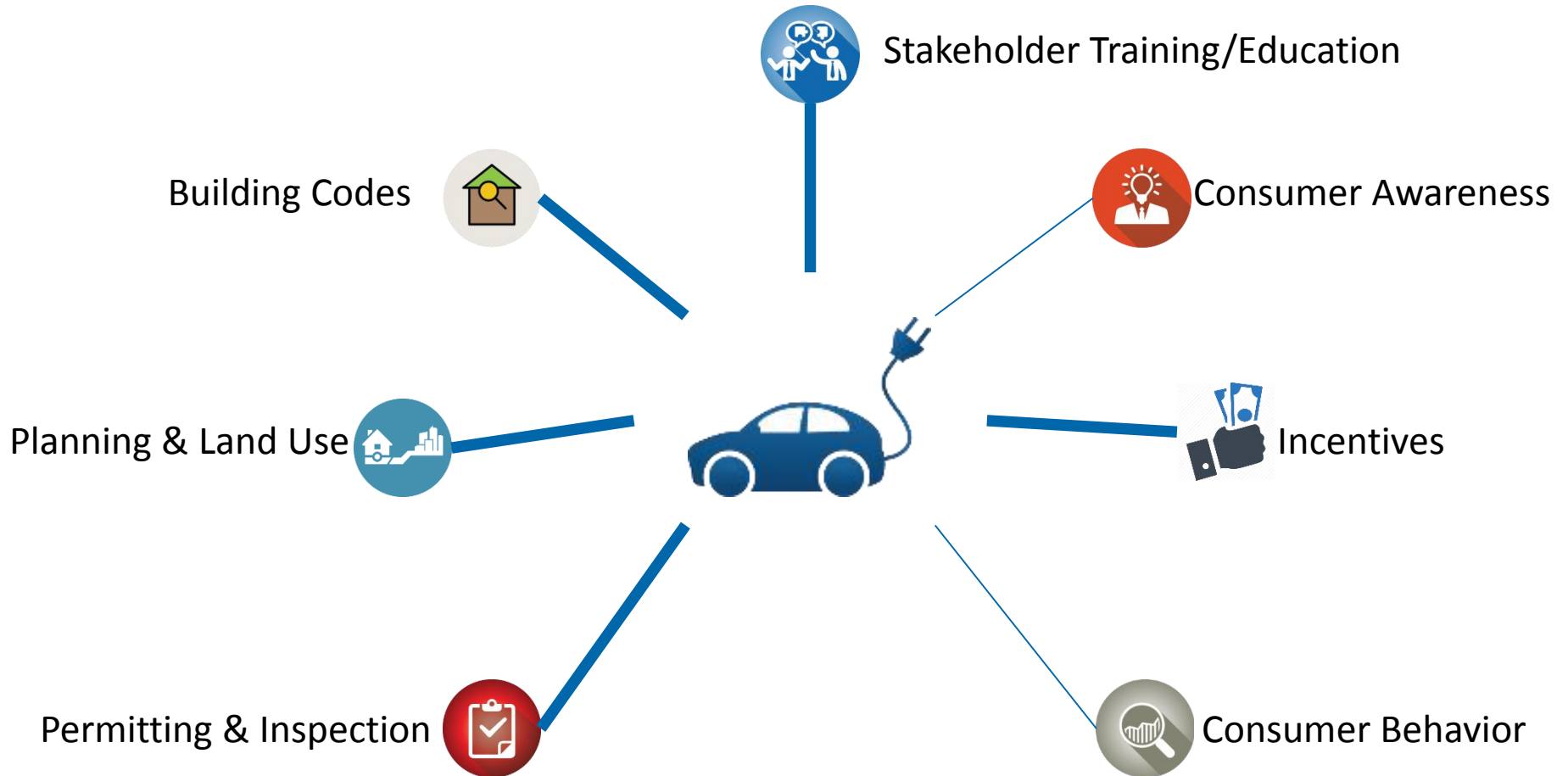
Apart from the shameless plug, this slide is more of a disclaimer: The views expressed are ICF's alone; further, they are neither reflective of any single engagement nor should they be misconstrued to represent those of an agency listed above.

Why Planning / Readiness Matters

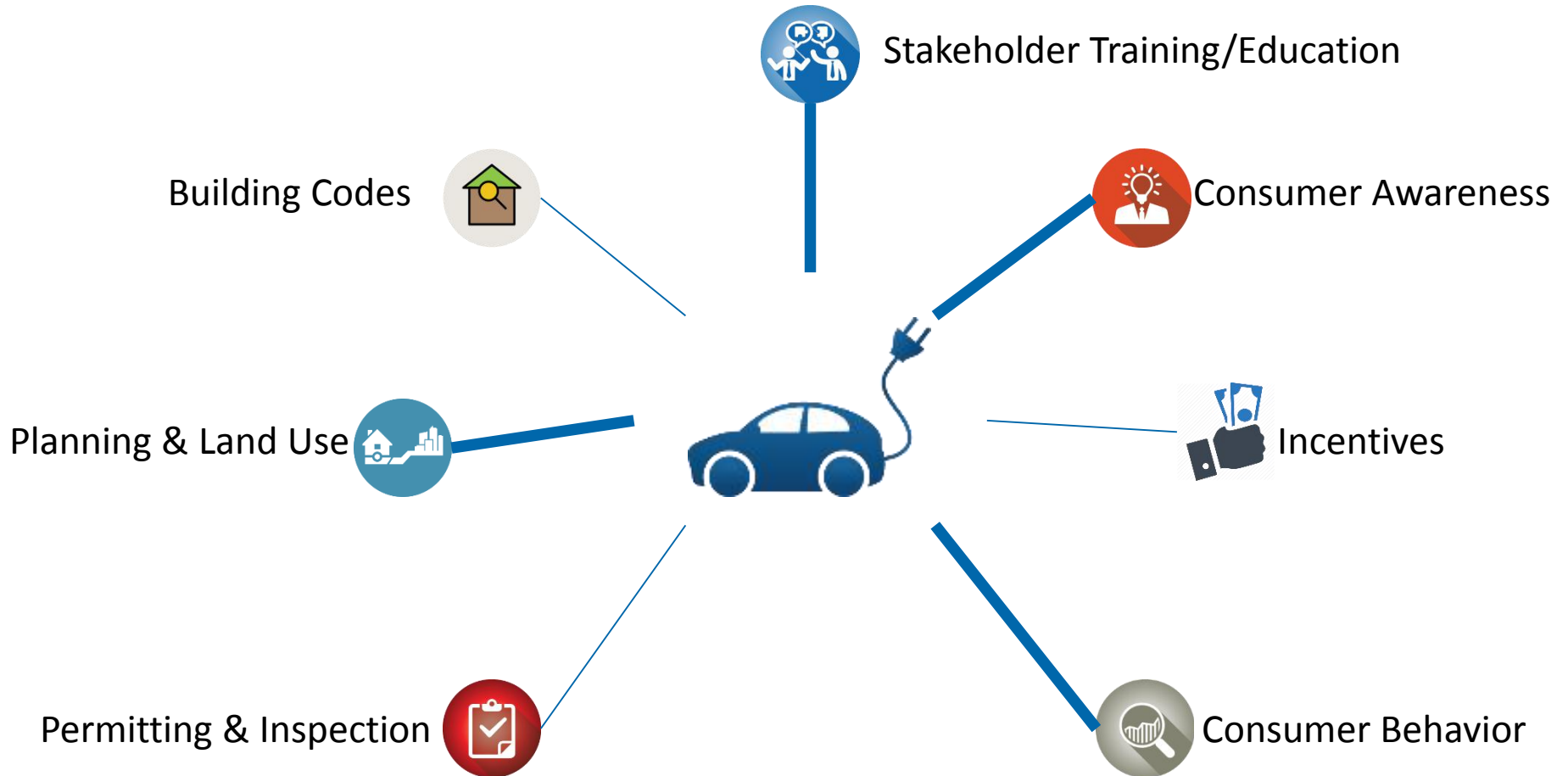
- **ICCT White Paper: Assessment of leading electric vehicle promotion activities in United States cities**
 - Policy is driving accelerated EV deployment
 - Cities are leading on EVs in diverse ways
 - Best practices are starting to emerge
 - Cities are an important focal point for collaboration among govts, industry, utilities, and advocacy

- **Idaho National Labs, *How Does Utilization of Non-Residential EVSE Compare Between those Installed in Oregon in Planned versus Unplanned Locations?***
 - Charging equipment deployed in areas that fell within a planning process experienced nearly 90% greater utilization (as measured by charging events per week) compared to charging equipment deployed in so-called unplanned locations.

Review of Core Elements of Readiness Planning



Review of Core Elements of Readiness Planning

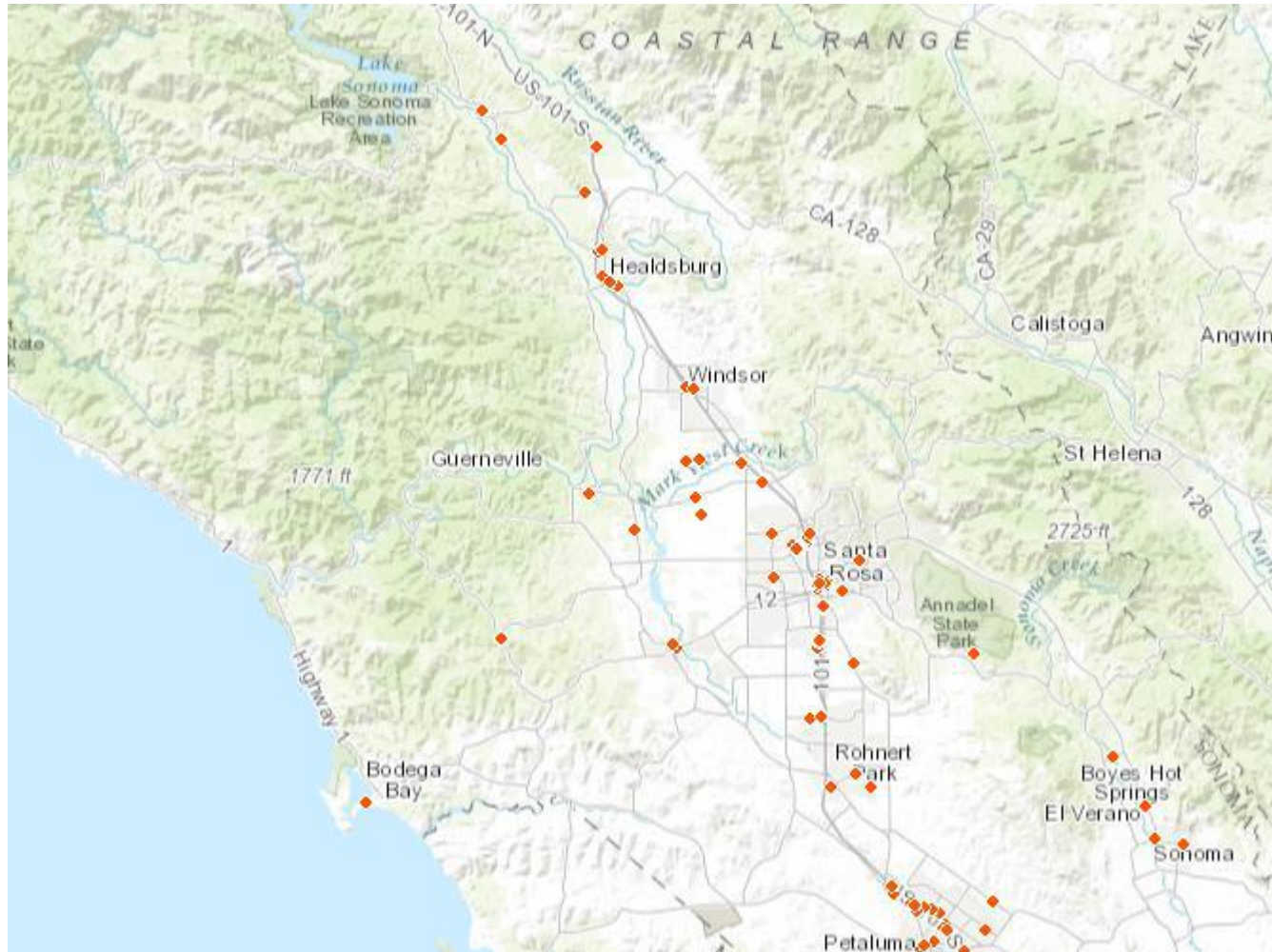


How things are changing

- **Market is starting to realize that existing documentation is becoming dated**
- **Platform for action and planning is adapting**
 - Market is also realizing that static reports have limited utility
 - Increasing attention to interactive documents
 - Increasing reference to “toolkits”
- **Evolving understanding of what to do with infrastructure siting**
 - Not prescriptive: Serves as leverage point for local governments
 - Narrow focus of outreach/engagement
 - Providers
 - Employers
- **Multi-family charging is hard**
 - How well do ‘best practices’ travel?

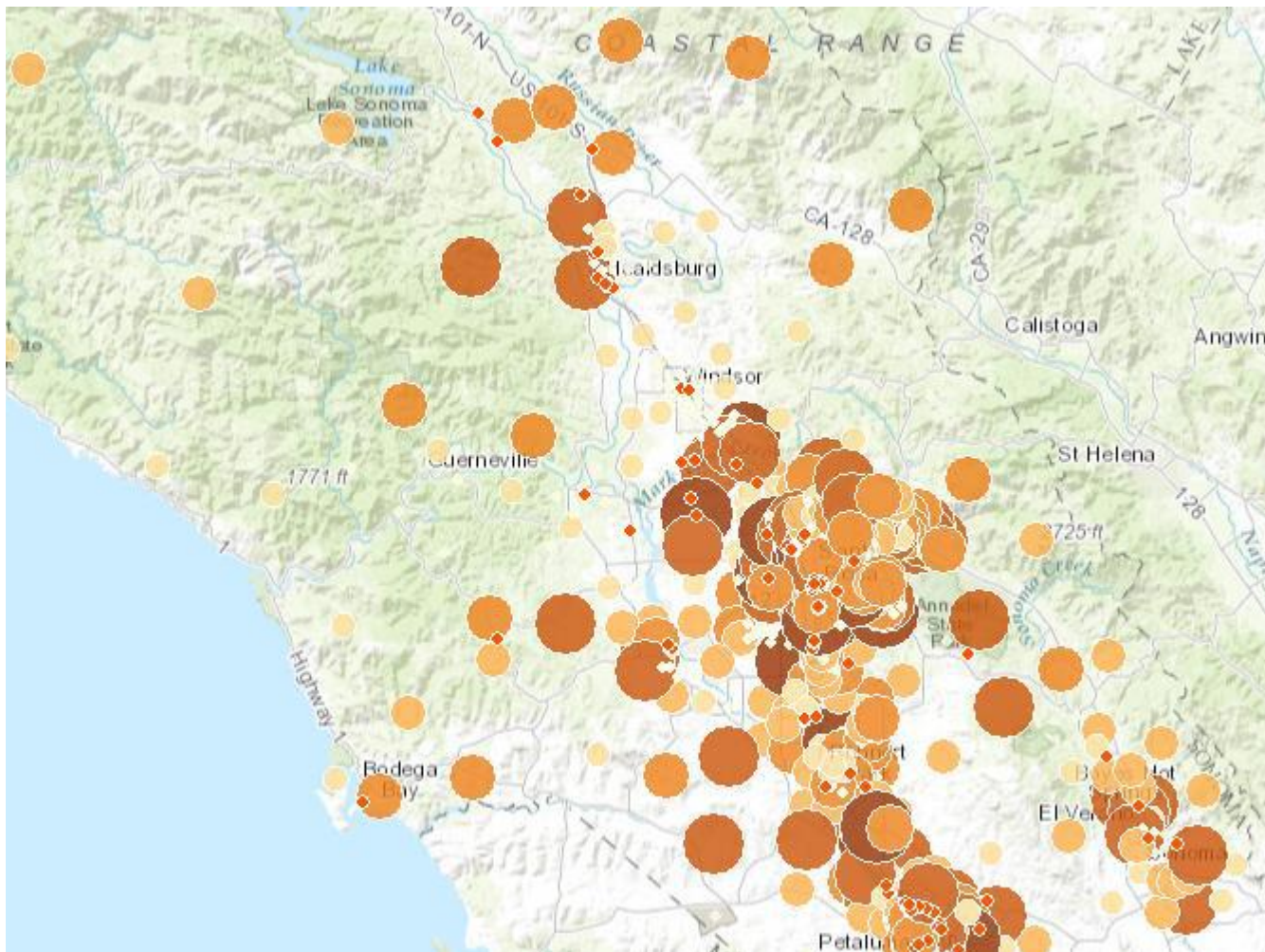
Infrastructure Siting

Sonoma County



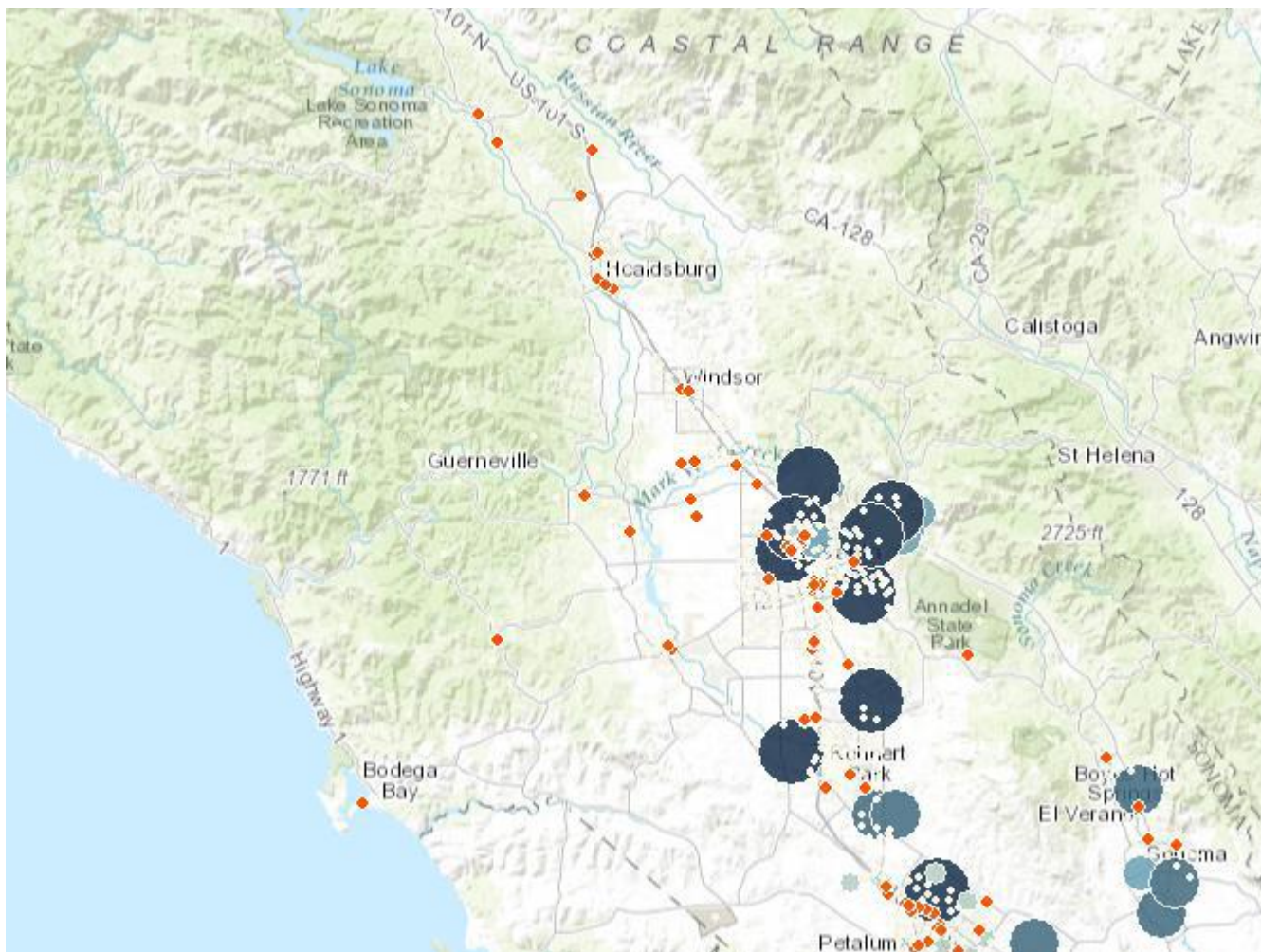
Infrastructure Siting

Residential demand for charging



Infrastructure Siting

Multi-family demand for charging



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What are the real challenges in planning? (1 of 2)

- **Aligning long-term planning efforts with rapid changes in technology is difficult**
 - Which way is the vehicle market going to break? PHEVs vs BEVs?
 - How can planning be nimble enough to respond to those market shifts?
- **Progressive agencies are interested in prioritizing other modes of transportation**
 - You need parking to create charging, but many local govts are trying to reduce the amount of parking
- **Local governments can have an impact on EV adoption, but it is small compared to the influence of the market – thereby creating a “wait-and-see” mentality**

What are the real challenges in planning? (2 of 2)

- **Local governments have a mandate to serve everyone, and EV owners tend to be higher income constituents**
 - Local and regional governments certainly want to support electric vehicle readiness, particularly those agencies with whom we have worked directly.
 - However, there is always a part of the planning process that faces the question of “why are we doing this?” and the underlying premise is often linked to equity.
- **ADA compliance is costly and the need is uncertain**
 - Illustrative point: Assume 3% of spaces are dedicated to EVs, then 10% of those are ADA-accessible. And then let’s assume 20% of charging is away-from home.
 - Drastically increasing the cost for a very small part of the population (this should **not** be interpreted as some knock on ADA requirements)
 - Burden of compliance falls on property owners, who are already trying to “do the right thing” by providing charging infrastructure
- **Electric vehicles are not a perfect fit for all government fleets**
 - Fleets are often mentioned as a good fit for EV adoption; but local government fleets often have unfavorable economics for EV adoption (e.g., via low mileage) or cannot find vehicles that will fulfill their requirements (e.g., four wheel drive or towing)

