Transportation Electrification

Creating synergy with local, regional, and state planning goals

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Scope of Forthcoming Whitepaper

Purpose: Explore how utility and transportation planning can align on the local, regional, and statewide levels to promote widespread transportation electrification and its associated benefits

Information of interest:

- ✓ Major sources of transportation funding
- ✓ Criteria used to allocate revenue
- ✓ Processes that could consider electrification projects
- ✓ How utilities' electrification programs can better accommodate or complement regional needs

Basic premise:

CPUC is not alone in promoting transportation electrification and could work with other agencies to establish a framework for coordinated local regional, and state-level efforts to address barriers and leverage funding.

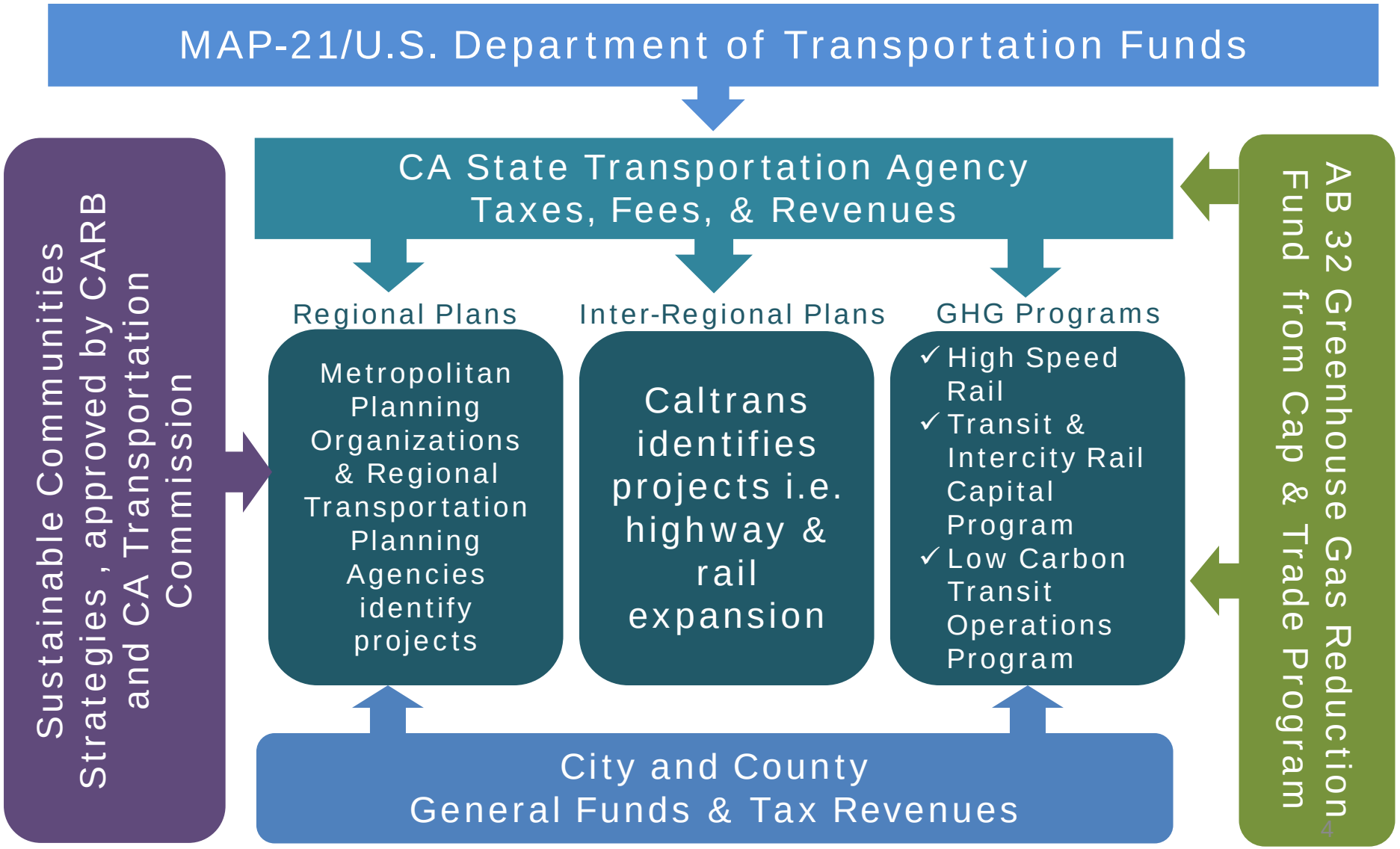
Methodology

- ✓ Identified non-ratepayer transportation funding sources and planning authority processes that could support transportation electrification
- ✓ Assessed local and regional agencies' preferred strategies to reduce transportation emissions
- ✓ Reviewed pilot reports and Regional EV Readiness Plans.
- ✓ Interview transportation experts within local, regional, and state planning agencies

From a transportation planner's perspective, reducing GHG involves:

1. Promoting fuel efficiency or fuel-switching
2. Reducing overall vehicle miles traveled
3. Capacity and operations management

Ecosystem of Transportation Planning Jurisdictions



Many Sides of California

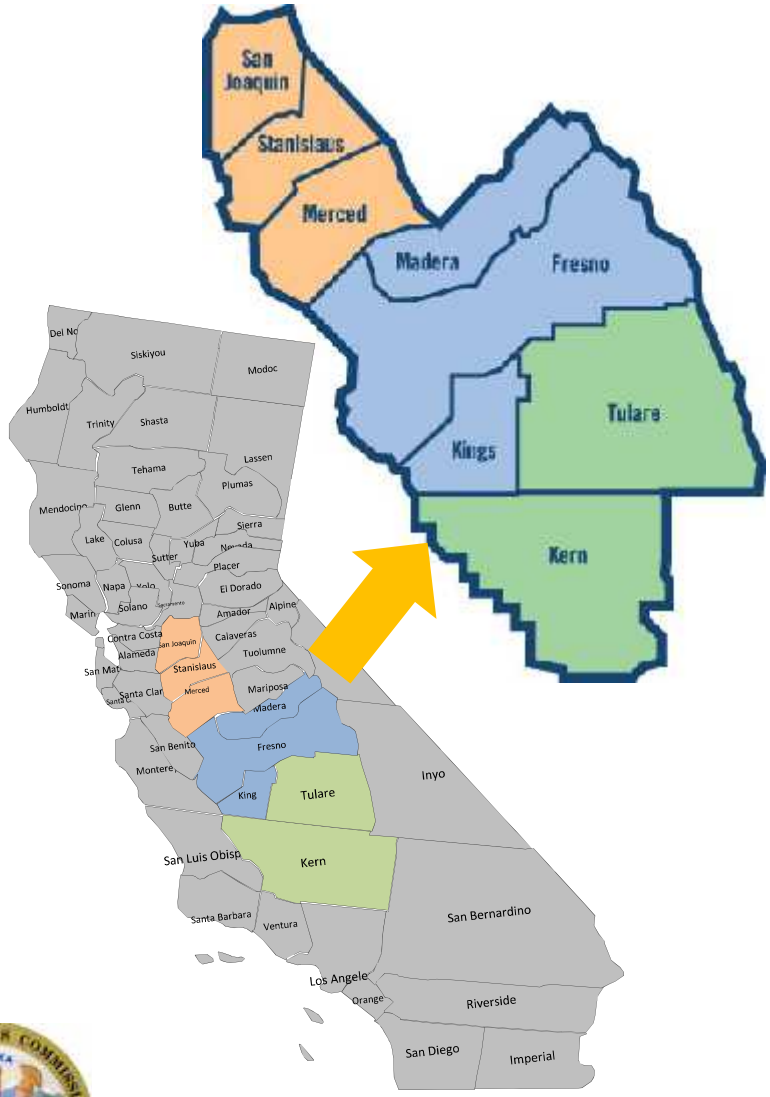
- ✓ Transportation electrification requires **local & regional** planning partners
- ✓ Travel demand is driven by the **regional economy**, which drives the demand for heavy-duty, light-duty, rail, and off-road vehicles
- ✓ Municipal government **land-use decisions** shape regional travel behavior, so a one-size-fits all solution would not likely meet needs

MPOs, COGs, RPTAs | Caltrans Districts | APCDs/AQMDs | Electric Service Areas

More Takeaways

- ✓ Utilities could take a more active role in supporting local governments' applications for federal funds (regarding electrification projects)
- ✓ Local and regional governments' unique funding plans reflect their own preferred greenhouse gas and mobile-source pollutants reduction strategy
- ✓ City governments are critical partners because they shape local and regional transportation needs, and they have zoning, building code, project permitting, and inspection authorities.
- ✓ Transportation demand for inter-regional, intra-regional, and intra-city travel reflect specific economic needs, requiring flexibility in electrification strategies, involving diverse partners.

Snapshot – San Joaquin Valley



- ✓ Air district encompasses 2 Caltrans districts, 8 counties, and 8 Metropolitan Planning Organizations
- ✓ Counties of San Joaquin, Madera, Fresno, Tulare have county-specific transportation/transit programming using county sales tax revenue
- ✓ PG&E, SCE, and publicly owned utilities
- ✓ Electric transmission constraints in Fresno Local Capacity Area
- ✓ Major highway corridors include Interstate-5 and Highways 99
- ✓ Significant portion qualifies as Disadvantaged Communities per CalEnviroScreen
- ✓ Economic dependency on agriculture results in severe air quality impact from off-road equipment and freight movement, among others.

Snapshot – City of Long Beach

- ✓ Air quality concerns have promulgated electrification strategies at the Port of Long Beach
- ✓ City government is currently pursuing changes in local ordinance to support installation of electric vehicle charging stations
- ✓ Mix of industrial, commercial, and residential areas connected through highways, a seaport, and an airport
- ✓ Heterogeneous social economic demographic with both affluent neighborhoods and disadvantaged communities.