Strategies to Fuel the Future

Jana Corey
Director, Electrification and Alternative Fuels

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General Guidance

• The CPUC General Guidance has strong elements
  o Prioritize sectors with high emission reduction potential
  o Flexibility is key to ensure regional characteristics are considered
  o Industry engagement is needed to address true operational requirements
  o Safety is priority

• To rise to the challenge of addressing SB 350
  o Flexibility on timeline, sector and go-to-market strategy is paramount
  o Clear and simple submission guidelines for accelerated approval of IOU proposals
Sectors and Market Barriers

• Reducing California’s petroleum demand will require a comprehensive approach and must address sectors, fuel type, and technologies; allow flexibility of approach

  • Address sectors with significant emission reduction opportunity
    • Light duty – infrastructure investments underway
    • MD/HD

  • Monitor/explore application of all fuel types
    • Hydrogen fuel cells vehicles are a highly promising electric technology
    • Natural gas (and RNG) can improve MD/HD vehicle emissions and cost profile

  • Focus on commercially available mature technologies

  • Invest in demonstration projects for future technology
# The Utility Tool Kit

## Infrastructure investment
- Financial incentives
- Ownership of fueling/charging infrastructure or make-ready
- Development of distributed energy resources

## Rate design
- To reduce operating costs (e.g. time of use rates for charging)
- Guided by best-practice (e.g. transparency and cost of service)

## Education and outreach
- Provide customers with information about rates and the way in which operations can be optimized to lower operating costs
- Facilitate customer participation in other utility programs, such as EE, DR and DG programs

## Grid integration pilots
- Maximize the benefits of transport electrification by optimizing vehicle interactions with the grid
What Next?

• Support activities in all parts of the value chain
  o Support technology demonstrations
  o Promote standardized communication protocols
  o Understand customer needs/behavior

• Build/expand on current projects
  o BMW i ChargeForward pilot
  o Honda smart home
  o Open Vehicle Grid Integration Protocol (OVGIP)
  o Others

• Roadmap for the future
  o Integrated technology projects (EV/storage/solar)
  o Charging standards for MD vehicles
  o Alt fuels development – infrastructure, cost reductions, increased functionality