



# Strategies to Fuel the Future

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# General Guidance

- The CPUC General Guidance has strong elements
  - Prioritize sectors with high emission reduction potential
  - Flexibility is key to ensure regional characteristics are considered
  - Industry engagement is needed to address true operational requirements
  - Safety is priority
- To rise to the challenge of addressing SB 350
  - Flexibility on timeline, sector and go-to-market strategy is paramount
  - 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

<b>Infrastructure investment</b>	<ul style="list-style-type: none"><li>▪ Financial incentives</li><li>▪ Ownership of fueling/charging infrastructure or make-ready</li><li>▪ Development of distributed energy resources</li></ul>
<b>Rate design</b>	<ul style="list-style-type: none"><li>▪ To reduce operating costs (e.g. time of use rates for charging)</li><li>▪ Guided by best-practice (e.g. transparency and cost of service)</li></ul>
<b>Education and outreach</b>	<ul style="list-style-type: none"><li>▪ Provide customers with information about rates and the way in which operations can be optimized to lower operating costs</li><li>▪ Facilitate customer participation in other utility programs, such as EE, DR and DG programs</li></ul>
<b>Grid integration pilots</b>	<ul style="list-style-type: none"><li>▪ Maximize the benefits of transport electrification by optimizing vehicle interactions with the grid</li></ul>



# What Next?

- Support activities in all parts of the value chain
  - Support technology demonstrations
  - Promote standardized communication protocols
  - Understand customer needs/behavior
- Build/expand on current projects
  - BMW i ChargeForward pilot
  - Honda smart home
  - Open Vehicle Grid Integration Protocol (OVGIP)
  - Others
- Roadmap for the future
  - Integrated technology projects (EV/storage/solar)
  - Charging standards for MD vehicles
  - Alt fuels development – infrastructure, cost reductions, increased functionality