

Electrification: The Time is Now

The Promoting Electric Vehicles Act of 2011 is designed to advance the wide-scale deployment of grid-enabled vehicles (GEVs) and infrastructure needed to support them. The bill would create a targeted investment framework that would leverage constrained federal resources to ensure large-scale deployment of plug-in vehicles into a limited number of specific geographic regions known as "deployment communities." As Congress considers a wide range of issues, it is crucial that this bill be high on the list of priorities for passage this year.

01 OIL DEPENDENCE IMPOSES SIGNIFICANT CONSTS ON THE NATION

- Oil price spikes have contributed to every recent U.S. recession; according to the Department of Energy, oil dependence has cost our economy \$5 trillion since 1970 (\$580 billion in 2008).
- According to the Rand Corporation, U.S. armed forces spend up to \$83 billion annually protecting vulnerable infrastructure and patrolling oil transit routes, benefiting all nations at the expense of our lives and our treasure.
- Global dependence on oil reduces the United States' ability to develop strong and effective foreign policy against nations that undermine local and global security.
- 40 percent of all U.S. CO2 emissions are from the transportation sector, which would be largely unaffected by a nationwide CO2 cap and trade program.

02 THE TECHNOLOGY IS READY

- Mass-produced electric vehicles (EVs) with a 100-mile range and plug-in hybrid electric vehicles (PHEVs) with an unlimited range are already available now to consumers. In fact, by 2013, more than 40 EV and PHEV models are expected to be on the market. Declining battery costs, which will continue to fall with scale production, will make cars more affordable.
- No new technology is required to deploy a robust vehicle charging system, including quick charging.
- To capitalize on the full potential of plug-in vehicles, however, it will be critical to move beyond early adopters, which is precisely what this legislation will help to achieve.

03 THE WORLD IS MOVING AHEAD: DO WE WANT TO BE LEFT BEHIND?

- Plug-in vehicles are more economically competitive in much of the rest of the developed world, where high gasoline prices make them more cost-effective and the greater emphasis on reducing carbon emissions places more importance on lower-polluting technology.
- In China, growing concern about oil dependence, the environment, and the absence of consumer expectations (range is not an issue for many first-time car owners) is leading to a burgeoning manufacturing sector for vehicles, components, and infrastructure.
- In Europe, higher gasoline prices combined with a populace accustomed to smaller cars and shorter commutes (plus a 220-volt electrical system at the consumer level) creates strong built-in incentives to adopt—and build—GEVs.
- Passage of the Promoting Electric Vehicles Act will help the United States overcome these challenges and even the playing field so that we do not lose the opportunity to lead the world in this fast-growing new sector and capture the jobs and security that come with it.