WHY ELECTRIC DRIVE?

EXPANDING CONSUMER CHOICE

Consumers now have more choices than ever to drive electric, with offerings of diverse sizes, price points and capabilities — including battery electric vehicles (BEVs), plug-in hybrids (PHEVs) and fuel cell electric vehicles (FCEVs).

41 plug-in and fuel cell cars are now available to American drivers. offerings are expected to grow to more than four dozen in the next two years, and consumer choices will continue to expand throughout the decade. Nearly every major automaker in the U.S. now has a plug-in vehicle planned for launch by 2020.

PHEVs are similar to conventional hybrid vehicles but these vehicles have larger batteries that are charged by plugging into the grid. BEVs are powered solely by a battery, charged by plugging into the grid. FCEVs convert the chemical energy from a fuel, such as hydrogen, into electricity.

AMERICAN COMPETITIVENESS

According to the US Department of Energy, in the "Motor Vehicles and Component Parts" segment alone, more than 259,000 employees currently work with alternative fuel vehicles, including hybrids, plug-in hybrids, all electric fuel and natural gas vehicles. This is an increase of 69,000 jobs in 2016.

There is a global technology race underway to lead the development of electric drive technologies, including advanced batteries and electric vehicle supply equipment. Asian and European nations are investing heavily, driven by the immediate demand to improve air quality for their citizens.

Navigant Research projects that the global market for lithium ion batteries in the light duty fleet will grow from $3.2 billion in 2013 to $24.1 billion in 2023.

Global revenue from the EVSE segment has been estimated by Navigant to be $567 million in 2013, and that number is projected to grow to $5.8 billion in annual revenue by 2022.

ELECTRIC FUEL IS AFFORDABLE

Domestically produced grid electricity, on average, can power plug-in cars at the equivalent of $1 a gallon of gasoline. This price is stable, insulated from the global volatility that impacts gasoline.

GROWING INFRASTRUCTURE

Electricity infrastructure is already ubiquitous. With the average American driving less than 40 miles a day, studies show that most drivers are plugging in at home to meet most, or all, of their driving needs.

Opportunities for public charging are steadily expanding, with the DoE reporting nearly 19,000 electric charging stations now installed across the nation, comprising over 50,000 outlets. Private/public partnerships are helping to grow charging networks, teaming to apply the best solutions that are optimized for driving habits in individual regions.

More employers are offering workplace charging for employees, and resident access to charging at multiple unit dwellings such as apartments and condominiums is on the rise. Likewise, retailers and restaurant groups are starting to take advantage of the additional business gained by offering charging for patrons.

ENERGY SECURITY OVER OIL DEPENDENCE

Reliance on a single, globally traded monopoly fuel threatens our economic growth and national security, while electric drive offers a choice on how to power the nation’s transportation sector.

The implications for national security compound the economic costs of a dependence on globally traded petroleum by keeping the U.S. in business with often hostile regimes. EIA projects that the U.S. will continue to import roughly 35 percent of our oil through 2040 — with 72% of the world’s oil reserves are controlled by Organization of the Petroleum Exporting Countries (OPEC) members.

CLEAN AIR

The Union of Concerned Scientists studied the total emissions reductions of electric drive in every region of the country. They concluded that no matter where in the U.S. an EV is charged and operated, electric drive vehicles have fewer total well-to-wheel emissions than the average gasoline-powered vehicle sold today.

These benefits expand as the grid becomes cleaner. Natural gas net generation rose by 21 percent from 2011 to 2012; more than half the states in the U.S. have a renewable energy standards and greater efficiency and intelligence are being added to the production and transmission of electricity.