

The rapid adoption of electric vehicles (EVs) across the United States is happening now.

Powerful global trends are driving adoption of electric vehicles, including technology advances lowering costs, megatrends in transportation leading to connected, automated, and shared vehicle platforms, and societal trends, such as changing views on car ownership among Millennials. In Texas, the Electric Reliability Council of Texas (ERCOT), the state electric grid operator, estimates there will be **more than 3,000,000 EVs on Texas roads by 2033**.¹ Given the numerous benefits afforded by transportation electrification, this should come as no surprise. From job growth and economic advancement to increased grid reliability and efficiency, going electric will offer numerous benefits to the Lone Star State. The Texas Commission on Environmental Quality's (TCEQ) Mitigation Plan for Texas related to the Volkswagen settlement allocates **over 31 million dollars** to fund the development of electric vehicle supply equipment (EVSE), which will spur additional investment in Texas infrastructure.

- ✓ **Transportation electrification contributes to economic growth and job creation** – The advanced vehicle industry, which includes hybrid, electric, natural gas, and fuel cell vehicles, has created **15,300 jobs in Texas**. This accounts for 7% of the **233,400 advanced energy jobs** in the state.² As the adoption of EVs increases, there will be a growing need for the construction of supporting infrastructure, further increasing job creation and stimulating economic activity.
- ✓ **Texas auto consumers will save money** – PEVs are fundamentally increasing competition in the transportation sector, giving customers more, and better, options. The total cost of ownership (TCO) for PEVs is **significantly lower** as compared to their counterparts, internal combustion engine (ICE) vehicles, thanks to lower operation maintenance costs driven by simpler electric drive train. Although the upfront cost of EVs is higher than ICE vehicles at present, costs are decreasing, and existing incentives help to lower those costs while the market is young. Prices will continue to decline as lithium-ion battery costs fall and additional models are introduced, such that PEVs will reach price parity as soon as **2024**.³
- ✓ **EVs will contribute to a more reliable, cleaner grid while reducing customer costs** – Texas is poised to become the nationwide leader in solar energy, with more than 40,000 MW of capacity being evaluated for interconnection to the grid, and Texas already is home to the most wind power of any U.S. state. EVs can charge during times of high solar and wind generation as well as in times of low demand, which would increase electricity system efficiency and lower costs to consumers. EVs will also contribute to system reliability, with Texans having the option to participate in markets to sell services to the grid.

¹ http://www.ercot.com/content/wcm/lists/144927/2018_LTSA_Report.pdf

² Advanced Energy Jobs in Texas 2018. TAEBA.

³ Electric Vehicle Outlook 2018. Bloomberg New Energy Finance. <https://bnef.turtl.co/story/evo2018?teaser=true>