



ELECTRIC VEHICLES SAVE MONEY,  
PROTECT PUBLIC HEALTH AND THE ENVIRONMENT,  
AND REDUCE THE NEED FOR OFFSHORE DRILLING.

### **Electric vehicles save money.**

Electric vehicles (EVs) often have a lower lifetime cost than comparable gas cars because of their much lower fuel and maintenance costs. The cost of electric vehicle charging is roughly equivalent to paying just \$1 per gallon for gas, thanks to an EV's performance efficiency and the lower cost of electricity.<sup>1</sup> EVs also have lower maintenance costs because they have fewer components that typically need replacement—oil, fan belts, air filters, and timing belts—and require much less maintenance than conventional vehicles.<sup>2</sup> A typical family can expect to save \$10,000 over the course of 10 years.<sup>3</sup>

### **Electric vehicles do not burn gasoline.**

Driving electric means you never have to go to a gas station again. Electric vehicles don't have an engine that burns gasoline, which is made from crude oil. Instead, the battery is recharged. EVs have no tailpipe and therefore don't spew poisonous, polluting tailpipe gases.

### **Electric vehicles do not use motor oil.**

Electric vehicles don't use motor oil, so there are no oil changes needed. Switching to driving electric means you will never again waste time or money getting your vehicle's oil changed. Because EVs don't use oil, there are no more unsightly oil drip marks on your driveway nor oil leaking onto our roads, which means significant reductions of runoff pollution into our local surface water, groundwater and aquatic habitats.

### **Electric vehicles reduce air pollution, improving air quality and reducing health care costs.**

Electric vehicles produce no polluting tailpipe emissions, meaning a cleaner and healthier environment with lower risks to human health. Breathing in vehicle particle pollution (including nitrogen oxides, or NOx) increases the risk of asthma, lung cancer, heart disease, and premature death. Today, there are 6.2 million Americans with asthma under the age of 18, and asthma is the leading chronic disease in children.<sup>4</sup> Air pollution is disproportionately a burden to communities of color and low-income communities, who often face higher exposure to pollutants and who may experience more severe responses to such pollution.<sup>5</sup>

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## Electric vehicles protect public health and the environment.

The transportation sector generates the largest share of greenhouse gas emissions in the United States<sup>6</sup> and transitioning to an electric transportation system offers an opportunity for significant reduction of these emissions. Everywhere in the country, EVs produce fewer overall emissions than traditional internal combustion vehicles. In Florida, even when emissions from electricity generation are included, driving an electric car is equivalent to getting 57 miles per gallon in a conventional vehicle.<sup>7</sup> This will improve as the electricity grid in Florida and across the country becomes cleaner as renewable energy increases, meaning EVs will continuously become cleaner. Using renewable energy, such as solar panels, to power an EV reduces carbon emissions to close to zero. EV owners can drive pollution-free by installing fewer than four kilowatts of solar panels, according to the Florida Solar Energy Center.<sup>8</sup>

## Electric vehicles reduce air pollution that impacts our oceans.

Red tide, blue-green algae, and cyanobacteria are examples of harmful algal blooms that can have severe impacts on human health, aquatic ecosystems, and the economy and are in part caused by nutrient pollution.<sup>9</sup> For example, research has shown a significant portion of nitrogen pollution in Tampa Bay comes from vehicle exhaust.<sup>10</sup> Since EVs have no tailpipe emissions, they are not contributing to nutrient pollution that is affecting our waterways.

## Electric vehicles can protect our coasts from offshore drilling.

If 20-45 million people switched to electric vehicles by the early 2030s, it could offset any oil used to make gasoline from the currently protected areas of the Atlantic, Pacific, and Eastern Gulf of Mexico combined!<sup>11</sup> This bold goal is achievable. Bloomberg New Energy Finance expects that 30 million electric vehicles will be on the road by 2030.<sup>12</sup> Reducing offshore oil drilling means much less risk of a disaster like the BP oil spill on our beaches. Going electric is a no-regrets strategy to help save our coasts from offshore drilling, while also saving money and protecting public health and the environment.

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- 1 United States Office of Energy Efficiency & Renewable Energy: <http://energy.gov/eere/everywhere/ev-everywhere-saving-fuel-and-vehicle-costs>
- 2 Forbes, "The Bottom Line on Electric Cars: They're Cheaper To Own": [http://www.forbes.com/sites/constance\\_douris/2017/10/24/the-bottom-line-on-electric-cars-theyre-cheaper-to-own/#1379306d10b6](http://www.forbes.com/sites/constance_douris/2017/10/24/the-bottom-line-on-electric-cars-theyre-cheaper-to-own/#1379306d10b6)
- 3 United States Office of Energy Efficiency & Renewable Energy: <https://www.energy.gov/eere/electricvehicles/saving-fuel-and-vehicle-costs>
- 4 American Lung Association: <https://www.lung.org/lung-health-and-diseases/lung-disease-lookup/asthma/learn-about-asthma/asthma-children-facts-sheet.html>
- 5 American Lung Association: <https://www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/disparities.html>
- 6 United States Environmental Protection Agency: <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>
- 7 Union of Concerned Scientists: <https://www.ucsusa.org/clean-vehicles/electric-vehicles/life-cycle-ev-emissions#.W6ZLJNKjb4>
- 8 Florida Solar Energy Center: <http://fsec.ucf.edu/en/publications/pdf/fsec-cr-2053-17.pdf>
- 9 United States Environmental Protection Agency: <https://www.epa.gov/nutrientpollution/harmful-algal-blooms#learn>
- 10 Tampa Bay Estuary Program: "Charting the Course: The Comprehensive Conservation and Management Plan for Tampa Bay": <https://indd.adobe.com/view/cf7b3c48-d2b2-4713-921c-c2a0d4466632>
- 11 Southern Alliance for Clean Energy: <http://cleanenergy.org/tag/EVsDriveDownOil/>
- 12 Bloomberg New Energy Finance, "Electric Vehicle Outlook 2017": [http://data.bloomberglp.com/bnef/sites/14/2017/07/BNEF\\_EVO\\_2017\\_ExecutiveSummary.pdf](http://data.bloomberglp.com/bnef/sites/14/2017/07/BNEF_EVO_2017_ExecutiveSummary.pdf)