

# Electric vehicles

## Electric cars have become mainstream

While the first modern electric vehicles (EVs) only hit the road in the late 2000s, today there are more than 40 EV models on the market.<sup>58</sup> Since 2011, more than 1.4 million EVs have been sold in the United States.<sup>59</sup>

## Lower cost, better performance

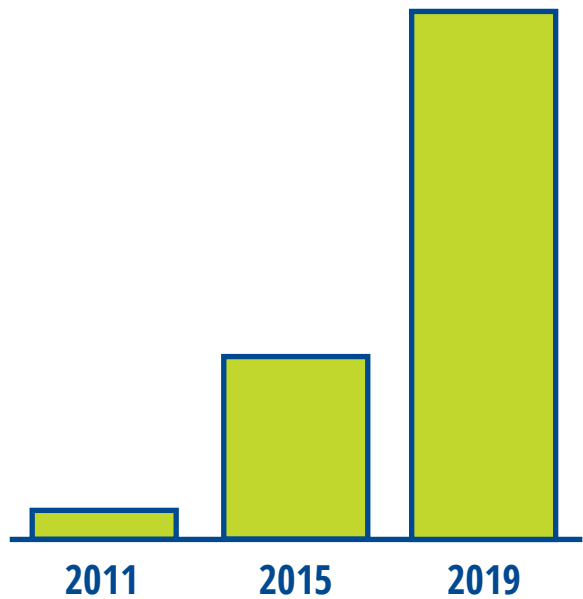
EVs have become more affordable in recent years, in part because the cost of batteries is dropping. In 2016, the cost of producing a lithium-ion battery for an EV was about a quarter of what it was in 2009, while providing six times as much energy for its size.<sup>60</sup>

Thanks to technological improvements, EVs are traveling farther on a charge – up to 300 miles – and reaching full charge in a shorter time.<sup>61</sup>

## Cleaner and more efficient

Gas-powered vehicles are inefficient, making use of only 12–30% of the energy in gasoline, while electric vehicles convert over 77% of the energy from the electric grid into motion.<sup>62</sup>

Because they are more efficient, electric vehicles are cleaner than gas vehicles even when the electricity to charge their batteries comes primarily from fossil fuels. In 2018, emissions of greenhouse gases from the operation of an electric vehicle in New England were equivalent to the emissions from a gas-powered car getting 114 miles per gallon.<sup>63</sup> As the percentage of renewable electricity on the grid increases, electric vehicles will become even cleaner.



**Since 2011, annual sales of electric vehicles in the U.S. have increased from less than 20,000 to more than 330,000.**

## Electric buses

By the end of 2018, 528 fully electric, battery-powered buses were in operation across the country. Major transit agencies, including LA Metro and New York's MTA, have committed to transition their entire fleets to zero-emission buses.<sup>64</sup> School districts are also adding electric school buses to their fleets. Pollution from diesel school buses is a significant contributor to lung inflammation and missed days of school.<sup>65</sup>