

Electric Future?

The electric vehicle, like smartphones this decade, could soon become ubiquitous

Between 1908 and 1927, the Ford Model T ushered in a revolution of sorts becoming the first affordable car that took the internal combustion (IC) automobile to the middle class. A century later, a wiser world – coming to terms with the apocalyptic climate change scenarios that the IC engine and other human pursuits have unleashed – has been on an obsessive quest to manufacture the affordable electric car. The effort has consumed much of this past decade and though IC engines continue to be popular and cheaper, that equation could change in the next decade.

The stumbling block has been making a battery that is cheap and can power the electric vehicle over long distances on one charge. EV battery makers, focussed on lithium-ion cells, are targeting a battery cost of \$100 per KWh – which will bring down the battery cost of a 30KWh contemporary car to the Rs 2 lakh price bracket from Rs 5-6 lakh presently. Similarly, the low range per charge – typically 100 km in earlier years – could be a thing of the past with cars today aiming at ranges of 300-400 kms and more.



However, technology can only go so far if public policy doesn't fit into what is becoming a maddening and traumatic period for automobile companies. Public charging infrastructure remains woefully inadequate and passenger car sales are slipping. Last week, Delhi government announced its Electric Vehicle Policy 2019 which offers to waive road taxes and registration charges until 2024

and hefty subsidies on charging equipment. While the jury is out on EVs being cleaner than IC engines – forests are cut and coal burnt to produce electricity – Delhi offers a counter-intuitive view in favour of EVs. After all, cities like Delhi-NCR facing an air pollution emergency act like a development engine for much of north India.

Given India's human development challenges such tradeoffs to move pollution out of cities cannot be avoided. But there's another complication. India's automobile industry, accounting for 49% of the country's manufacturing GDP, will become dependent on EV component imports. Meanwhile, China's early bets on EV battery manufacturing are paying off. Ultimately, there is no tricking climate change. Volkswagen's 'defeat device' to shore up its diesel IC engine represents the foolhardy hangover of the irrepressible 20th century. Instead of selfishness that will lead to a suicide pact of seven billion, the time to share clean energy technologies draws nigh.