

Electric and Fuel cell vehicles

Level 1

This level assumes penetration of electric vehicles is assumed to be limited if there is a lack of focused policy initiatives, reaching 12% for 2-wheelers, 3 wheelers and taxis, and 2% for buses and cars, reaching complete electrification in at least metro cities.

Level 2

Level 2 assumes that focused policy decisions by the government will incentivize and promote electric vehicles, thereby increasing the penetration of electric cars and 2 wheelers to 40%, 3-wheelers, taxis and buses to 99%, electric buses to 99% of the road based transport in 2050, buses on fuel cell engines to 1% and cars on fuel cell engines to 2%.

Electric vehicles are yet to make a debut in the state, and with supportive policies they are expected to form significant share in the fuel mix in all categories of vehicles. Electrification of railways has recently begun, but faces challenges due to the hilly terrain of the state. About 15% of the railway track is expected to be electrified by 2020. Electric vehicles can be a transformative change in the transport sector. The RMI-NITI Aayog report on electric vehicles provides different transformative scenarios for penetration of electric vehicles. Further, with development of smart cities, electric vehicles penetration could increase significantly.

Level 3

Level 3 assumes further electric vehicle push, increasing penetration of electric cars to 52%, 2-wheelers to 56% in 2050, complete electrification of buses, 3 wheelers, taxis by 2040, with 2% of buses and 4% of cars on fuel cell engines in 2050.

Level 4

Level 4 assumes that transformative policy programs are envisaged which would achieve 100% electrification of buses, taxis and 3 wheelers in 2030, 87% of cars and 93% two wheelers by 2050, the remaining mainly on fuel cells and CNG.

