Electric, LNG and Fuel cell vehicles
Freight vehicles

Level 1

This level assumes no penetration of electric vehicles or LNG possibly due to lack of focused policy initiatives. 100% of HCV and LCV are diesel in 2050.

Level 2

Level 2 envisages that focused policy decisions by the government could incentivize and promote electric vehicles, thereby increasing the penetration to 2.9% in electric HCV and 0.8% in LCV. LNG fueled trucks are assumed to reach 1.4% penetration in 2035, but later give way to electric HCVs.

Though all freight transport vehicles currently run on diesel, electric and LNG fueled vehicle are the future. Tesla's electric Semi has shown the world that an electric truck can be a reality, though its commercial acceptance is likely to be a long way off in India. Several electric LCVs have also been launched by different manufacturers, and their penetration can be pushed by stricter emission standards or government mandates to convert to electric, so as to curb the increasing problem of pollution, especially in metropolitan cities like Mumbai. The 4 levels assume different rates of penetration of electric vehicles. LNG fueled trucks are also emerging as a cleaner and operationally cheaper mode of freight transport, and these are assumed to make an appearance in Maharashtra from 2022-23 onwards at increasing penetration rates from Level 1 to 4. LNG is viable only for long-haul transport, so penetration of LNG is assumed only for HCVs.

Level 3

Level 3 assumes further electric vehicle push, increasing penetration of electric HCV to 4.3% and 1.2% in LCV. LNG fueled trucks are assumed to reach 2.8% penetration in 2035, but later give way to electric HCVs.

Level 4

Level 4 assumes that transformative policy program and could achieve penetration of 8.6% of electric HCVs and 2.3% electric LCVs. LNG fueled trucks are assumed to reach 5.5% penetration in 2035, but later give way to electric HCVs.