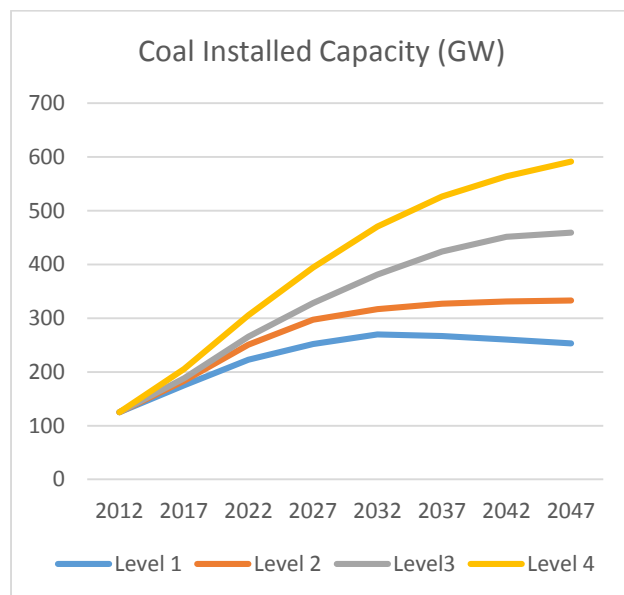


COAL POWER STATIONS

At the end of the 12th five year plan, coal based power generation contributed over 134 GW i.e. 56% of India's capacity and 66% of electricity generation. India's low per-capita electricity consumption of around 900 kWh (1/3rd of world's average) and low levels of electricity access (32% of the population without electricity access) demands significant addition in electricity supply. In the last decade, coal based power generation capacity was doubled and substantial capacity addition is planned.



LEVEL 1

Coal based power generation is discouraged due to increasing fuel prices, import dependence, pressure to reduce carbon emissions, reducing prices of renewable energy etc. Installed capacity grows slowly to a high of 270 GW in 2032, corresponding to the least coal scenario of the Integrated Energy Policy, and will reduce thereafter to 253 GW by 2047. PLF of power plants remains 73% up to 2032 and improves to 74% thereafter.

LEVEL 2

Level 2 projections are in line with Planning Commission's projections for next decade with a reduced growth rate thereafter. Installed capacity will grow rapidly to 297 GW in 2027, and then grow slowly to 379 GW in 2047 due to increasing coal prices, increasing import dependence and increasing pressures to reduce emissions. PLF is assumed to improve to 75% for next two decades and to 76% thereafter.

LEVEL 3

Level 3 assumes a coal-fired capacity addition slightly lower than what is assumed for the 8% GDP growth scenario in the interim report of the Expert Group on Low Carbon Strategies for Inclusive Growth. The growth rate of capacity addition is assumed to reduce subsequently. In this scenario, installed capacity will grow to 379 GW by 2032, and then slow down to reach 464 GW by 2047. Current PLF will improve to 77% for next two decades and to 78% for further 15 years.

LEVEL 4

Level 4 assumes a coal-fired capacity addition slightly lower than what is assumed for the 9% GDP growth scenario in the interim report of the Expert Group on Low Carbon Strategies for Inclusive Growth. The growth rate of capacity addition is assumed to reduce subsequently. Installed capacity will grow to 591 GW in the next 35 years due to improved domestic coal supply, softening of imported coal prices and availability of more carbon space to countries like India. Current PLF will improve to 79% for next two decades and to 80% for the further 15 years.