

Large Hydro Power Plant

The total installed capacity of large hydro power plants in the state was around 2.2 GW in 2015, which includes close to 30 hydroelectric power plants. As per the Central Electricity Authority (CEA), total hydro power generation potential in the state is around 1.7 GW which is less than the existing capacity. The state has 0.5 GW Kundah pumped hydro project under construction, 2 GW Sillahalla pumped hydro (stage 1) at DPR stage and Sillahalla stage 2 (1 GW), Kodayar (0.5 GW) and Manalar (0.5 GW) under field investigation.

Level 1

Level 1 assumes that Kundah (4X125 MW) and Sillahalla (2X500 MW) pumped hydro plants are commissioned during 2035-50. Capacity addition is slow due to issues related to environment and social concerns over hydropower.

Level 2

Level 2 assumes that Kundah (4X125 MW), Sillahalla (4X500 MW) are commissioned by 2050. This could be because public acceptance of hydro power changes over a long period of time and total capacity rise to 4.9 GW by 2050, with total generation of 17.6 TWh.

Level 3

Level 3 assumes that Kundah, Sillahalla (stage 1 and 2) and some units of Kodayar and Manalar are commissioned by 2050. Total generation from nuclear power stations will be 22.1 TWh in 2050 corresponding to 6.2 GW installed capacity.

Level 4

In this scenario, it is assumed that Kundah, Sillahalla (stage 1 and 2), Kodayar and Manalar are commissioned by 2050. Total generation from large hydro plants will reach 23.9 TWh in 2050 corresponding to 6.7 GW installed capacity.

