

Coal Power Stations

The total installed capacity of coal based power plants (both utility based and captive) was around 13 GW in 2015. Recently, Tuticorin (150 MW) and Tuticorin JV (500 MW) were commissioned. This lever provides options to users to select between most optimistic trajectory wherein coal based power plants grows substantially in coming decades and most pessimistic trajectory wherein no new capacities are added. At present, the state is developing North Chennai Thermal Power Project Stage III (1x800), Ennore SEZ Thermal Power Project (2x660 MW), Ennore Thermal Power Station Expansion Project (1x660MW), Uppur Thermal Power project (2x800) and Udangudi Thermal Power Projects Stage –I (2x660 MW). The capacities below are the plants which are installed in the state. The plants which are not supplying power to the state are captured in Exports sheet in the model.

Level 2

Level 2 assumes that coal based capacity addition will continue to be added at a slightly lower growth rate. The growth is slow which could be because of tightening of emission norms and it will reach up to 26 GW by 2050. Coal supply could improve and plant capacity factor of power plants will improve from 52% in 2015 to 70% in 2050.

Level 1

No new coal based power plants are added in level 1 after 2025. This could be because of government's focus on increasing electricity generation from renewable energy sources. Further, it is assumed that existing plants will continue to operate at 52% capacity factor.

Level 3

Level 3 assumes slightly higher growth rate of coal based capacity addition which could be because of development of infrastructure for imported coal and improved domestic coal production in the state. Total installed capacity will reach up to 33 GW by 2050. Capacity factor will also improve from 52% in 2015 to 75% in 2050.

Level 4

Level 4 assumes there are might not be any constraints to addition of coal based power plants. Infrastructure for coal imports might be developed and increase in coal production in the state can increase coal based capacity. Growth rate of capacity addition will be higher than historical growth leading to installed capacity of 37 GW by 2050. Capacity factor will also improve from 52% in 2015 to 83% in 2050.

