

National Electricity Plan: Under-construction power plants to become useful after FY22, says Central Electricity Authority

Out of 47,855 MW of the coal-based power plants currently under construction, only 6,445 MW of additional capacity would be required between FY17-22, the National Electricity Plan (NEP) published by the Central Electricity Authority (CEA) has said. The forecast was based on estimating power demand growth at 6.2% CAGR and capacity addition of other electricity generating sources such as gas (406 MW), hydro (6,823 MW), nuclear (3,300 MW) and renewable energy (1,17,756 MW). The capacity requirement forecast also took into account the possible retirement of 22,716 MW capacity of generation units due to their old age and inability to adhere to environmental norms.

However, the NEP estimates that these under-construction power plants would be put to use after FY22, with additional coal-based capacity requirements jumping up to whopping 46,420 MW for the FY22-27 period. Under these conditions, plant load factor (PLF) of coal-based power plants is seen at 56.5% in FY22 and 60.5% in FY27. The NEP also projects that 25,572 MW of coal based capacity which will be completing 25 years of operation by FY27 would have to be decommissioned between 2022-27. As recently reported by FE, lower-than-expected growth in demand for electricity, coupled with the overcapacity of installed power projects, has precipitated a situation where more than 20,000 MW of under-construction coal-based power projects in the private sector are staring at an uncertain future. Capacity addition from conventional sources in 2012-17 was 99,210 MW, which is 112% of the target.

To accommodate high quantum of renewable energy sources, thermal plants are likely to run at low PLF in future, NEP noted, adding that any negative deviation with respect of capacity addition target from other sources would have positive impact on the PLF of the coal-based plants. PLF has decreased from 78.9 % in FY08 to 59.6% in FY17.