

# Nuclear Power

The total nuclear power generation capacity in the country is 6.8 GW in 2017. This includes seven nuclear power stations which are located in the states of Maharashtra, Tamil Nadu, Rajasthan, Karnataka, Gujarat and Uttar Pradesh. These seven plants are maintained and operated by Nuclear Power Corporation of India Limited (NPCIL), which is government owned enterprise. In Andhra Pradesh, there are no existing nuclear generation plants. NPCIL is planning to develop a 10 GW plant in Kovvada, Srikakulam District, out of which 50% of the capacity is promised to the state. Land acquisition of around 1000 acres is currently in progress.

## Level 2

Level 2 assumes that the government's plan for 10 GW, Pressurised Heavy Water Reactors (PHWR) based power plant gets delayed. The plant will be commissioned in phased manner. It will reach full capacity in 2050. This could be because public sentiment regarding nuclear power continues and changes over a long period of time. Total generation from nuclear power plant will be 70 TWh in 2050.

## Level 1

Level 1 assumes that no nuclear power plant will be commissioned in the state. This could be because of public sentiment regarding nuclear power and issues related to land acquisition and environment concerns.

## Level 3

Level 3 assumes that the plans for setting-up 10 GW, Pressurised Heavy Water Reactors (PHWR) based power plant is achieved by 2040. Thereafter total capacity remain same till 2050. This could be because of improved government efforts which improves public sentiments on nuclear power early. Total generation from the plant will be 70 TWh from 2040 onwards.

## Level 4

In this scenario, it is assumed that challenges related to commissioning of nuclear plants are overcome, and 2030 is achieved. Fast Breeder Reactor (FBR) is also proven and additional 3.5 GW (FBR) is commissioned by 2050. Total generation from nuclear power plants will reach 95 TWh in 2050.

