Onshore Wind Power

The state has good potential for promotion of Wind power projects and to harness this, state government has already issued a dedicated wind policy. In addition to this, the state has launched a draft Solar-Wind hybrid policy also, to encourage new technologies, methods and ways to involve a combined operation of wind and solar PV plants. The wind power policy of the state provides various incentives to wind energy sector like exemption from electricity duty, award of non-agricultural status to the land where wind power projects will be accorded and 100% banking. It also encourages wind power developers to install higher capacity and improved technology Wind Electric Generators (WEGs) by repowering the projects. Total potential for wind power in the state has been estimated to be around 44 GW (NIWE). This lever provides choices for selecting four different levels of wind power development in the state.

Level 1

Level 1 assumes that capacity addition will be significantly slower than the target set by state nodal agency. Large scale grid integration of wind energy could remain a big challenge. The state's target of 9 GW (by 2029 will be achieved in 2040. Thereafter capacity addition will follow the historic trend and will reach up to 15 GW in 2050.

Level 2

Level 2 assumes that transmission constraints might get removed due to additional investments for evacuation systems and development of Green Transmission Corridor. However, capacity additions will be slightly slower as compared to targets. The target of 9 GW will be achieved five years later as compared to the plan (by 2035). Thereafter, capacity addition increases strongly culminating in a cumulative capacity of 27 GW by 2050.

Level 3

Level 3 assumes that significant investments could be made to overcome transmission constraints, prices of wind energy reduces and alternate fuel increases. The state will progress as per the plan and 9 GW will be achieved by 2029. Thereafter, capacity addition growth will be significantly higher than the historical trend and state will reach its full potential of 44 GW by 2050.

Level 4

Level 4 assumes that there might not be any technical or economical constraints for wind power development. Transmission constraints might get resolved and development of ancillary services market might help in removing large scale grid integration issues. Cumulative install capacity will reach up to 8 GW by 2022 and state will surpass its targets. Thereafter total installed capacity will reach its full potential of 44 GW by 2040.