

Small Hydro Power

In 2015, Karnataka had a ~1 GW of small hydro plants installed in the As per Ministry of New and Renewable Energy (MNRE), the potential for power generation from small, mini and micro hydro power projects in Karnataka is 4.1 GW. This lever provides choices of small hydro power development in the state under different scenarios. The heroic effort scenario assumes that Karnataka realizes its full small hydro power potential by 2050.

Level 1

Level 1 is a low-growth scenario, which assumes that current capacity grows at a sub-par rate till 2050 to reach a total capacity of just 1.4 GW by 2050.

Level 2

Level 2 assumes that in addition to not only replacing retired capacities, new plants will also be commissioned, however at a slower rate. Environmental and social concerns over the development of SHP can limit capacity addition. The total installed capacity would grow at a higher rate reaching up to 2.3 GW by 2050.

Level 3

Level 3 takes an optimistic view wherein Karnataka may actively promote development of SHP and comes close to the target of 1.5 GW capacity set out by MNRE by 2022. Installed capacity increases reaching a total of 3.2 GW by 2050.

Level 4

Level 4 is the most aggressive scenario that assumes that there may not be any constraints for development of small hydro plants. Full potential of small hydro power will be exploited by 2050 resulting in total capacity of 4.1 GW in 2050.

