

# Small Hydro Power

The Government of Assam announced policy for development of Small Hydro Power projects (up to 25 MW) way back in 2007. The policy identified potential of 149 MW, out of total potential of around 240 MW, for development of small hydropower (SHP) projects at about 90 identified locations. Since then there has been no development on policy front for development of SHP projects. SHP policy needs to be revised with new incentives and promotional measures to attract private investment in the State. Till 2015, only about 34 MW has been harnessed so far. This lever provides choices of small hydro power development in the state under different scenarios.

## Level 1

Level 1 is a pessimistic scenario, in which it is assumed that only current plants continue to operate. Capacity addition is very slow and only takes care of retirement to maintain the roughly committed capacity. The total electricity generated in 2050 would be 0.1 TWh only.

## Level 2

Level 2 assumes that in addition to replacing retired capacities, new plants will also be commissioned, however at slower rate. Environmental and social concerns over the development of SHP could limit capacity addition. The total installed capacity will reach 149 MW by 2050, harnessing potential at all identified locations in the policy. Total electricity generation increases from 0.1 TWh in 2020 to 0.6 TWh in 2050.

## Level 3

Level 3 assumes an optimistic view wherein capacity addition increases significantly at CAGR of 5%. The growth could be fuel by new incentives and promotional measures to attract private investment in the state. Total installed capacity will reach 201 MW by 2050 resulting in electricity generation of 0.8 TWh.

## Level 4

Level 4 is the most aggressive scenario which assumes that there might not be any constraints for development of hydro plants. Full potential of small hydro power will be exploited by 2050 resulting in annual growth rate of 6%. Total electricity generation from small hydro will increase from 0.1 TWh in 2020 to 0.9 TWh in 2050.

