

# Large Hydro Power Plant

The total installed capacity of large hydro power plants in the state was around 375 MW in 2015, which includes Karbi Langpi, Kopli and Khandong Hydro Power Stations. As per the Central Electricity Authority (CEA), total hydro power generation potential in the state is around 650 MW of which around 58% has already been exploited. The state also has planned for setting-up Upper Bottom, Lower Kapoli, Killing, and Subansiri Lower Hydro Electric Projects. This lever provides choices of selecting different growth scenarios for large hydro power plants in the state.

## Level 2

Level 2 assumes that issues related to ecological damage, resettlement and rehabilitation might get resolved over a long period of time. This could delay commissioned of new hydro power plants. The installed capacity will reach its full potential of 650 MW by 2045 and generation will increase from 1.3 TWh in 2015 to 2.6 TWh in 2050.

## Level 1

Level 1 is a pessimistic scenario, in which it is assumed that only current plants continue to operate with scheduled maintenance efforts and no new hydro plant is built, which could be due to issues of large-scale ecological damage, resettlement and rehabilitation. The electricity generated in 2050 would increase marginally from 1.3 TWh in 2015 to 1.5 TWh in 2050.

## Level 3

Level 3 assumes that government efforts could result in improvement in public sentiments and key issues related to hydro power development might get resolved. The sector could also benefit from completion of Renovation & Modernization (R&M) and Life Extension (LE) efforts and total installed capacity will reach full potential by 2035. Electricity generation will reach 2.4 TWh by 2030 and thereafter improves marginally to 2.6 TWh by 2050.

## Level 4

Level 4 is the most aggressive scenario which assumes that there might not be any constraints for development of hydro plants. All announced and under construction will be commissioned in phased manner by 2030 and hydro capacity will remain constant till 2050 at its full potential. Electricity generation will reach 2.4 TWh by 2025 and thereafter improves marginally to 3 TWh by 2050, which could be due to R&M and LF efforts.

Installed Capacity - Large Hydro

