

# Electricity Losses

## Level 1

Level 1 assumes that pace of improvement will be slow, due to huge investments required towards strengthening the grid and slow improvement in financial health of distribution utilities. Electricity losses will gradually reduce from 18% to 10% by 2050 only.

## Level 2

It is assumed that smart grid projects will be implemented at a faster rate and distribution of financial health of distribution utilities will improve owing to UDAY scheme. Projecting based on conservative estimates, Electricity losses would reduce to 8% by 2050.

Aggregate technical and commercial losses in Assam are close to country average. The government has implemented several programs such as IPDS and RAPDRP reducing distribution losses and strengthen the sector. But, despite the improvement in distribution loss over the past couple of years, the loss levels have continued to remain higher. State government has also signed an MoU under UDAY which sets out clear targets for loss reduction in next 5 years. The present analysis captures electricity savings under different scenarios of electricity losses from the present losses of 18% until global best performance in Level 4 in 2050.

## Level 3

Required investments are made for improving T&D losses and various new technologies are leveraged to improving financial health of distribution utilities. National Smart Grid Mission is implemented at faster rate within the state which results in reducing electricity losses from 18% to 6.5% by 2045. It remains same thereafter.

## Level 4

Level 4 assumes there are no barriers, and targets set under UDAY are met on time. Financial health of distribution utilities also improves in next 4-5 years due to which investments are made for deployment of new and innovative smart grid technologies. The electricity losses reaches to 5% by 2045 and then remain same thereafter.

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