

# Transmission and Distribution Losses

**Level 1**

Level 1 assumes that pace of improvement is slow. This could be because of huge investments required towards strengthening the grid and slow improvement in financial health of distribution utilities. T&D losses will gradually reduce from 18% to 10% by 2050 only.

**Level 2**

It is assumed that T&D losses will reduce to 8% by 2050. This could be because of faster implementation of smart grid projects and better financial health of distribution utilities owing to UDAY scheme.

Transmission and Distribution 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**

Level 3 assumes that T&D losses reduces from 18% to 6.5% by 2045 and then remains same thereafter. This could be because of improved investments that are made for improving T&D losses and various new technologies that are leveraged to improve financial health of distribution utilities. National Smart Grid Mission might also get implemented at faster rate within the state.

**Level 4**

Level 4 assumes that T&D losses reaches 5% by 2045 and then remain same thereafter. This could be because there might not be any barriers. The targets set under UDAY are met on time. Financial health of distribution utilities might also improve in next 4-5 years due to which investments will be made for deployment of new and innovative smart grid technologies.

