

# Transmission and Distribution Losses

## Level 1

Level 1 assumes that pace of improvement can be slow 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 9% to 5% by 2050 only.

## Level 2

It is assumed that T&D losses will reduce to 5% by 2045 and remain constant thereafter. 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 Andhra Pradesh are one of the lowest within the country, however still higher as compared to international best practices. The government has implemented several programs such as APDRP, RAPDRP and Renovation & Modernization schemes reducing distribution losses and strengthen the sector. 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 9.0% until global best performance in Level 4 in 2050.

## Level 3

Level 3 assumes that T&D losses reduces from 9% to 5% by 2040 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 implement at faster rate within the state.

## Level 4

Level 4 assumes that T&D losses reaches 5% in next decade and then remain same. This could be because there will be no barriers, and 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.

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