# **Electricity Losses**

#### Level 1

Level 1 assumes that A.P distribution sector will reach global standards, however pace of improvement will be slow, due to huge investments required towards strengthening the slow improvement in grid and health of distribution financial Electricity losses will utilities. gradually reduce from 9% to 5% 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 5% by 2045 and remain constant thereafter.

10%

8%

6%

4%

2%

2015 2020 2025 2030 2035 2040 2045 2050

Level 1 Level 2 Level 3 Level 4

Aggregate technical and commercial 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

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 9% to 5% by 2040. 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% in next decade ad then remain same thereafter.