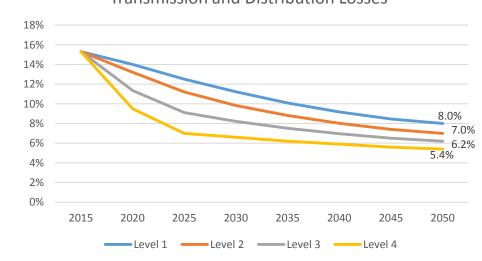# Transmission and Distribution Losses

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 15% in 2015 to 8% by 2050 only.

Level 2
It is assumed that distribution companies will meet UDAY targets and follow the same trajectory to reach 7% 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 Karnataka have reduced from 16% in 2012 to 15% in 2017, however they are still higher as compared to international best practices. The government is implementing several programs such as RAPDRP, High Voltage Distribution System (HVDS) and Renovation & Modernization schemes reducing distribution losses and strengthen the sector. The government also plans to implement SCADA/DMS, Distribution Automation Scheme (DAS) and GIS Mapping. 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 of 15% in 2015.

Level 3
Level 3 assumes that T&D losses reduces to 6.2% by 2050. 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 to 5.4% by 2050. This could be because there will be no barriers, and targets set under Karnataka Vision 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.

Transmission and Distribution Losses