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**Reliability and Quality Improvement on Power Distribution System
of Tokyo Electric Power Company**

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Abstract

Power supply reliability and power quality are becoming increasingly important since high-specified equipment sensitive to power interruption and quality becomes prevalent in Japan. Tokyo Electric Power Company, hereinafter TEPCO, has realized the first-rate reliability with about several minutes of annual average interruption duration per customer, which includes both forced and planned outages. In this paper, first, measures to improve power supply reliability for distribution system are discussed. Explaining natural environment surrounding TEPCO, measures to reduce the fault due to various causes such as lightning are introduced. In order to reduce the outage duration, measures such as distribution automation are also discussed. Planned outages are also discussed by introducing effective measures such as By-Pass Cables and Switches. In addition to these reliability measures, power quality improvement measures are also mentioned.