

## Con Edison Smart Grid Deployment Project

Consolidated Edison Company of New York, Inc. (“Con Edison”) is the lead organization in the Smart Grid Deployment Project (“Deployment Project”) being submitted under DOE-FOA-0000058, “Smart Grid Investment Grant Program”. Con Edison is joined by two lower tier applicants, its regulated utility affiliate Orange and Rockland Utilities, Inc. (“O&R”) (collectively with Con Edison, the “Companies”) and Rockland Electric Company (“RECO”), a regulated utility affiliate of O&R (collectively, “Applicant”). Applicant operates one of the most complex electric power systems in the world with the largest underground network and extensive overhead systems. Applicant safely and reliably serves over 9 million people in the New York City area, with peak load of 15 GW.

The Deployment Project provides benefits to customers by improving system reliability, reducing carbon emissions, and reducing costs by increasing system efficiency. Indirect benefits include the positive economic impact of the Deployment Project on the local economy. The Deployment Project includes Distribution Automation, Dynamic Modeling and Simulation and Energy Efficiency initiatives, which address Applicant’s ongoing challenges of maintaining reliability of service and satisfying the increasing demand on resources. By implementing advanced system capabilities like rapid restoration and grid reconfiguration, achieving efficient delivery through system losses reduction, enhancing data visualization, and integrating smart grid technologies, the Deployment Project attains new capabilities for its electric system and its customers.

Distribution Automation includes strategic programs that put Applicant’s electric systems on the road to the future. The programs include:

- Installing intelligent SCADA-controlled sectionalizing switches;
- Expanding secure monitoring and communication systems;
- Implementing advanced computational intelligence for automated system restoration; and
- Establishing a distribution smart grid.

Dynamic Modeling and Simulation integrates data from diverse systems to generate, predict and visualize information. This will enable interoperability, enhanced visualization of information and automation.

The System Efficiency component accommodates distributed generation, increases energy efficiency and reduces system losses.

## Con Edison AMI and Customer Sited Technologies Project

Con Edison is the lead organization in the Deployment of AMI and Customer Sited Technologies Project (“the AMI Smart Grid Project”) being submitted under DOE-FOA-0000058, “Smart Grid Investment Grant Program.” Con Edison is joined by its utility affiliates O&R and RECO who are lower tier applicants in the AMI Smart Grid Project.

Consistent with the “Smart Grid Vision for New York State” of the New York Smart Grid Consortium, Applicant proposes to install advanced metering infrastructure (“AMI”) in selected areas of the service territories of Con Edison, O&R, and RECO to extend the Smart Grid to the retail customer level.

Applicant’s service territory is distinguished by types and density of the building stock and meter locations not seen elsewhere. Applicant will also seek to replicate the functions of AMI with a fixed network overlay in an area already saturated with Automatic Meter Reading devices. Applicant’s unique customer base requires creative solutions for Demand Response (DR) and Energy Efficiency (EE) programs. Applicant will deploy a unique mix of solutions, including dynamic rates, innovative utility controllable customer sited technologies and the implementation of a Demand Response Monitoring System (DRMS) that will aggregate all of Con Edison’s diverse DR resources for real-time analysis.

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