

EIMA Reliability-Related Investments

	EIMA Program Description	2012 Plant Placed in Service	2012 Capital Investment	2013 Projected Plant Placed in Service	2013 Projected Capital Investment	Cross Reference
Underground Residential Cable Injection and Replacement Program	<ul style="list-style-type: none"> Remediate nearly 4,400 miles of bare concentric cable, some installed as early as 1966 Cable injection fills in cable insulation voids and avoids cable failures; replace URD cables that cannot practically or economically be injected 	<ul style="list-style-type: none"> Treated 97 miles of URD (ITN 47985) Replaced 373 miles of URD (ITN 47235) 	\$60.5M	<ul style="list-style-type: none"> Treat 97 miles of URD (ITN 47985) Replace 364 miles of URD (ITN 47235) 	\$55.0M	Michelle Blaise, ComEd Ex. 5.0, 74:1499 – 75:1500
Mainline Cable System Refurbishment and Replacement Program	<ul style="list-style-type: none"> Targeted at the testing and replacement of lead cable in urban areas Includes the planned assessment of all manholes on ComEd's system 	<ul style="list-style-type: none"> Assessed 8,008 manholes (ITN 47238) Replaced 46 miles of mainline cable (ITN 47233) Tested 120 mainline cable sections (ITN 47233) 	\$24.6M	<ul style="list-style-type: none"> Assess 6,025 manholes (ITN 47238) Replace 83 miles of mainline cable (ITN 47233) Test 121 mainline cable sections (ITN 47233) 	\$64.7M	Michelle Blaise, ComEd Ex. 5.0, 74:1499 – 75:1500
Ridgeland 69kV Cable Replacement Program	<ul style="list-style-type: none"> Replacement of approximately 10 miles of high-voltage (69kV) underground cable, a majority of which was installed in the early 1950s, some as early as 1927 	Replaced 3.2 miles of 69kV cable (ITNs 10166 and 47131)	\$7.7M	Replace 1.4 miles of 69kV cable (ITN 34125)	\$3.8M	Michelle Blaise, ComEd Ex. 5.0, 74:1499 – 75:1500
Training Facilities Program	<ul style="list-style-type: none"> Construction of two new facilities (Chicago and Rockford, IL) to provide electric and customer operations training Provides the ability to offer year-round, practical, hands-on training to field employees and enables practice of classroom theory on real equipment and technology year-round 	Planned, broke ground, and completed construction of the Rockford facility (ITN 47057)	\$2.4M	None	None	Michelle Blaise, ComEd Ex. 5.0, 74:1499
Wood Pole Inspection, Treatment, and Replacement Program	<ul style="list-style-type: none"> Inspection and treatment of approximately 733,000 wood poles on the ComEd system over the five-year program period Replacement or reinforcement of an estimated 19,000 poles 	Inspected 137,152 wood poles and replaced or reinforced 2,738 wood poles (ITNs 47239 and 47240)	\$9.4M	Inspect 149,000 wood poles and replace or reinforce 4,000 wood poles (ITNs 47239 and 47240)	\$20.9M	Michelle Blaise, ComEd Ex. 5.0, 74:1499 – 75:1500
Storm Hardening Program	<ul style="list-style-type: none"> Reduce susceptibility of certain circuits to storm-related damage Deployment of engineered solutions (e.g., overhead-to-underground conversion, installation of tree-resistant conductors, and additional vegetation management) Certain circuits will be prioritized based on historical susceptibility to storm-related damage Engineered solutions will be designed specifically for each circuit 	<ul style="list-style-type: none"> Prioritized circuits, identified appropriate hardening solutions for them (ITN 47242) Addressed 2012 priority circuits (ITN 47242) 	\$24.6M	<ul style="list-style-type: none"> Prioritize circuits, identify appropriate hardening solutions for them (ITN 47242) Address 2013 priority circuits (ITN 47242) 	\$19.0M	Michelle Blaise, ComEd Ex. 5.0, 74:1499 – 75:1500

EIMA Smart Grid-Related Investments

	Description	2012 Plant Placed in Service	2012 Capital Investment	2013 Projected Plant Placed in Service	2013 Projected Capital Investment	Cross Reference
Smart Meters	Under the Smart Meter Program, ComEd will replace all retail meters on ComEd distribution system with Smart Meters; process will include deployment of Advanced Metering Infrastructure (“AMI”) that provides a two-way communications infrastructure to support other customer services and Smart Grid applications.	Work was completed on back office applications and information systems functions required to support further meter deployment (ITNs 47260 and 48385)	\$0.1M	None	None	Michelle Blaise, ComEd Ex. 5.0, 74:1499; Ronald Donovan, ComEd Ex. 6.0, 28:599-602
Distribution Automation	Distribution Automation (“DA”) technology uses “sectionalizing” devices and remote communications to detect issues on the distribution system and automatically reroute power to minimize the number of customers impacted (commonly referred to as the self-healing nature of the Smart Grid.) ComEd’s DA Program includes planned installation of approximately 2,600 DA devices, replacement of the older 900 MHZ radio system with a new higher security communication system that meets newly-established government regulations, and the upgrade of the older 34kV field devices to the newer Intelli-team (“IT-2”) software; allows for better flexibility with fault isolation and operation with the new radio system.	ComEd installed 472 DA devices, replaced radios, and upgraded devices to IT-2 software (ITNs 47231, 47232, 47236, 47237, and 47938)	\$37.8M	ComEd plans to install 630 DA devices, replace radios, and upgrade devices to IT-2 software (ITNs 47231, 47232, 47236, 47237, and 47938)	\$62.8M	Michelle Blaise, ComEd Ex. 5.0, 74:1499 – 75:1500
Substation Micro-Processor Relay Upgrades Program	The Substation Micro-Processor Relay Upgrades Program is designed to modernize 10 ComEd substations, including upgrade of electro-mechanical protective relays to modern microprocessor-based devices, replacement of aging circuit breakers, two-way communications between ComEd’s control center and each substation, and installation of technology to remotely monitor the health of ComEd’s largest assets, its transformers. This program provides for fault detection, remote asset monitoring and improved site security. Partial upgrades may be applied across the service territory. ComEd has over 250 transmission-fed substations and over 800 substations in total.	ComEd upgraded one substation (ITN 45541)	\$7.0M	ComEd plans additional upgrades to substations (ITNs 45541, 47476, 47266, and 47847)	\$16.5M	Michelle Blaise, ComEd Ex. 5.0, 74:1499 – 75:1500