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ComEd Completes \$350 Million West Loop Project

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CHICAGO, June 10 /PRNewswire/ -- ComEd today announced the completion of its West Loop Project, the largest and most complex initiative of its kind ever undertaken by the company.

The West Loop Project accomplishes two main objectives. The eight-year, \$350 million initiative converts the city's electric transmission system from a "hub and spoke" to a network model, providing Chicago substations multiple sources of supply -- substantially reducing the likelihood of a significant loss of power downtown and in Chicago neighborhoods. Secondly, it adds the equivalent of a 400 MW power plant to the power available in the heart of the city.

"The West Loop Project marks a fundamental change in the way ComEd serves Chicago," said ComEd Chairman and CEO Frank M. Clark. "We are greatly enhancing reliability in the city by adding redundancies to our high voltage transmission grid -- the backbone of our energy delivery system. Customers depend on us to deliver electricity to run their businesses and enhance their quality of life, and the West Loop Project is central to our ability to fulfill our promise of reliable service."

Since 2001, ComEd has invested \$5 billion overall to expand and upgrade its transmission and delivery systems, and since 2003, the company has invested nearly \$1 billion the network of 200 substations and 5,800 miles of high-voltage power lines that deliver power across the region which comprise its transmission system.

Major features of the West Loop Project are:

- The construction of the high voltage 345,000 volt (345 kV) West Loop substation,
- The installation of two new 345 kV transmission lines across the city,
 - o One line, approximately 10 miles long, connects the ComEd Crawford substation on the south side to the new 345 kV West Loop substation
 - o The second 345 kV line, approximately three miles long, connects West Loop to the existing Taylor Substation
- The installation of new 138,000 volt (138 kV) transmission lines adding another layer of redundancy among Chicago substations, and;
- New equipment at 11 new and existing ComEd substations throughout Chicago.

Hub and Spoke to Network Arrangement

Previously, failure at a "hub" substation would put service at risk because of a lack of redundant supply to the system's "spoke" substations. A single higher voltage hub used to feed several spokes. If there were a problem at the hub, all the spokes could have been out of service. West Loop connects those spokes by adding 138 kV transmission lines, providing multiple supply routes to serve the former "spoke" substations. And the new 345 kV transmission lines also are networked among existing 345 kV substations to produce a larger and more redundant high voltage grid in central Chicago.

West Loop Substation

The enormous 345 kV substation at Goose Island, known as West Loop, links other high voltage ComEd substations in Chicago. 345 kV lines routed through tunnels beneath the Chicago River deliver power for this facility, where it is transformed to lower voltages and sent into the grid. West Loop substation relies on massive, state of the art gas-insulated switchgear, which operates like a giant fuse box directing power to substations and circuits across the city. Enormous transformers delivered by barge to the site earlier this year do the work of reducing voltages at this multi-million dollar facility.

High Voltage 345kV

The central features of the West Loop Project are two 345 kV transmission lines which cross the city on overhead poles, beneath some of the city's busiest streets, and through two 300 ft. long tunnels beneath the North Branch of the Chicago River, to reach into the basement of the new West Loop substation on Goose Island. From West Loop, lower voltage power will be disbursed to neighborhood and downtown substations, providing critical alternative routes for power to travel in the event of trouble at any substation in the network.

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