

London Hydro Sees 58 Percent Decline in Cable Failure Rate with Novinium Cable Rejuvenation

Highlight

- London Hydro realized approximately \$13.4 million in capital budget savings
- Cable failures have declined by 58 percent since Novinium® began the injection process
- London Hydro chose Novinium again in 2013 with an award for a new three-year cable rejuvenation contract

Overview

As an alternative to ongoing cable replacement, London Hydro asked Novinium to conduct a pilot cable injection project in a large subdivision. Since then, Novinium has gone on to inject more than 174,465 meters of cable for London Hydro and cable failures have declined by 58 percent.

The company and situation

In 2003, London Hydro was having major reliability issues with its aging underground cable infrastructure. In a single two-week period, one subdivision experienced seven cable-related outages. These outages were the tipping point for London Hydro to investigate methods to improve infrastructure reliability.

London Hydro understood that the cost to replace their aging cable would significantly increase its capital budget. The utility decided to conduct a pilot cable injection project in a large subdivision where several cable faults had already occurred. Between 2003 when the pilot cable injection project was completed and 2010, no further underground cable faults occurred in the pilot subdivision.

“

The cost to replace these aging cables would have been astronomical and our capital budget would have had to double if we had to dig them up and replace them. And since we haven't had to raise rates to cover the cable replacement cost, our paying customers are happy as well. ”

– Ed Jambor
Director of Operations
London Hydro



Company

London Hydro

Location

London, ON, Canada

Website

www.londonhydro.com

Cable Sizes and Length

1/0, 2/0, 3/0, #2, 250 MCM, and 500 MCM,
175 kilometers

Method

Sustained Pressure Rejuvenation (SPR)
process with Cablecure® 732 rejuvenation
fluid

Evaluation process

In 2010, London Hydro experienced 31 underground cable faults system-wide that impacted nearly 10,000 customers. Given the success of the pilot subdivision project, London Hydro issued a cable rejuvenation RFP and Novinium won the bid. Several challenges that the utility faced included:

- The cost and rate of underground cable failures was increasing
- Limited capital budget
- Very tight labor market in the Toronto area
- Limited availability of London Hydro switching crews

Solution

Novinium provided a turnkey solution for London Hydro that included switching, transformer replacement, and craftwork. The solution used Novinium's patented state-of-the-art Cablecure® 732 fluid and Sustained Pressure Rejuvenation (SPR) injection process.

Results

In the first three-year project, Novinium addressed 200,689 meters of underground cable and injected 85 percent, or 174,465 meters. The injected cable is now covered by a 40-year warranty.

"Ironically, the biggest issue we're having with cable rejuvenation is our younger linemen are not getting enough experience dealing with underground cable faults due to the significant drop in cable failures we've experienced since 2010. Our 2013 system-wide failure rate was less than half of what it was in 2010," said Ed Jambor, London Hydro's director of operations.

London Hydro recognized Novinium's superior rehabilitation solution again in 2013 with a second bid award in a new 3-year cable rejuvenation contract.