



Case Study

- Circuit Owner:** City of Lethbridge, Alberta, Canada
Cable: 15 kV, XLPE: compact No.2 (42.4 mm²) 112 meters
Problem: The City wanted to be able to extend the life of cable identified as *at-risk* after diagnostic testing.
Solution: Novinium™ Ultrinium 732

The City of Lethbridge Electric Department is a regulated wires service provider with a mandate to provide reliable delivery of power to every customer in the City's service area. They do not generate electricity or provide electric retail services.

Each year the city budgets money to test a portion of its cables using a non-destructive online test method. With this testing, approximately 5-10 cables are identified as weak and having a potential to fail in the near term.

Each year this utility has only a few cables to treat and the cost for having a crew come in to inject the cables was cost prohibitive. Novinium provided training to Lethbridge crews in Novinium injection techniques and rented equipment so the city could do the work itself each year at a fraction of the cost. Novinium spent one week training these crews in very cold conditions, when the temperature was approximately -10°C (14°F).

Brent Smith, Distribution Manager said, "We were happy to bring this work in-house and save the considerable expense of mobilizing an injection crew. We found the training we received was easy to understand, thoroughly documented, and easy to implement with our crews."



The Novinium injection process can be applied year-round in any almost any weather conditions. Here Dennis McDougall, a Novinium Certified™ technician and trainer, poses with his cold-weather gear. Novinium will tailor the delivery channel to suit the circuit owner's needs. In the case of Lethbridge, there were considerable savings to bring the activity in-house. The entirety of the patented and patents pending Novinium process are documented online at:

www.novinium.com/instructions.asp

A good crew can be taught how to rejuvenate cables in just a couple of days. Tailored Delivery™ proves circuit owners with modest rehabilitation budgets an economical way to address their reliability issues.

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- UV blocking treatment fluids (U.S. Patent 4,870,121)
- Ultrinium™ sustained pressure injection method (patent pending: US2005 0189130 A1)
- Ultrinium™ formulation optimization injection method (patent pending: US2005 0192708 A1)
- Injection Adaptor (U.S. Patent 7,195,504 and other pending patents)
- Perficio™ single switch injection (patent pending: US2006 11379979)
- Formulation of Ultrinium™ & Perficio™ components (patents pending)

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