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## US patent for Novinium injection process

Novinium has been awarded US patent number 8 572 842, titled Method for Thermally Enhancing Injection of Power Cables, for its N-Ter™ injection process. The patent for N-Ter (Novinium-Thermally Enhanced Rejuvenation) was jointly awarded to Norm Keitges, Novinium’s technical services manager, and Glen Bertini, Novinium’s president and CEO.

### Cable rejuvenation

Underground cable rejuvenation involves injecting a fluid directly into the stranded conductor region of the cable. The N-Ter process applies a low-voltage, direct current to warm underground cables to 40°C. Slightly warming the cable conductor creates more space between the cable strands, thereby increasing the volume available for the rejuvenating fluid. The process shortens the time required to rejuvenate cable by lowering the viscosity of the injection fluid, thus making it easier for the fluid to flow along the length of the cable.

When fluid passes through the cable more quickly, the injection time is reduced. A shorter injection time is particularly helpful on longer runs of 7-strand cable and on cables with compact strands. The N-Ter injection process can be 50% faster than older, first generation cable-injection methods. The N-Ter process also allows approximately 30% more fluid to be injected into cables, minimizing cable-to-cable variability and increasing reliability.

### First patent for co-inventor

The patent is the first for co-inventor Norm Keitges. “This patent was a direct result of Norm’s significant cable-injection experience. Norm saw a need and worked closely with Glen to create and refine the process,” commented Research & Engineering Manager, Richard Varjian.

CEO Glen Bertini added: “This patent speaks directly to Norm’s adoption of Novinium’s culture of continuous improvement and innovation. The United States Small Business Administration has a report that shows small, innovative firms like Novinium outperform their larger counterparts 13 to 1 in terms of patents per employee. That is certainly true for Novinium”.

This is Novinium’s second patent in the last 12 months and its 15<sup>th</sup> patent overall.

Adapted from press release by [Katie Woodward](#)

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