

New Siemens service extends lifespan of power cables

December 9, 2013

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Source: Siemens



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With Califex, Siemens' [Smart Grid](#) Division is offering a new service to energy suppliers, utilities and industrial plants initially in Germany, Sweden and Norway. This service extends the lifespan of insulated medium voltage cables. To do this, [Siemens](#) is implementing a patented cable rejuvenation process developed by its US partner Novinium. The Novinium process injects a rejuvenation fluid into a cable under constant pressure. This process increases the dielectric strength of the cable and returns its performance to a like-new condition. Rejuvenated cables can then be utilized for many more decades avoiding declining reliability issues and expensive cable replacement projects. Investments to completely replace these cables can thus be postponed to a much later time in the future.

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Many medium-voltage cables that were laid in the seventies and eighties are reaching the end of their service life. To prevent any outages in the medium-voltage grid, these older cables are usually replaced before their end of their service life. Siemens' new cable reconditioning service offers an alternative that can be substantially more cost-effective than replacing medium voltage cables. The cable life extension process also renews assets, making it very eco-friendly.

During the Califex process, the aging cable is fitted with an adapter for injecting the fluid. Drawn from reservoir-type containers, the fluid is injected into the empty space inside the cable wires

until it emerges from the other end. Then the cable is re-energized immediately. Within about seven days, the silicon-based liquid mixture diffuses into the cable insulation and the dielectric strength of the cable increases to a safe, like-new condition. This procedure offers tremendous time savings compared to cable replacement. It takes just a few hours to complete a cable section and allows the power to be quickly restored.

Energy-efficient, eco-friendly solutions for setting up intelligent power supply networks (Smart Grids) are part of Siemens' Environmental Portfolio. In fiscal 2012, revenue from the Portfolio totaled about 33 billion euros, making Siemens one of the world's largest suppliers of eco-friendly technologies.
