GE Vernova launches new SF_6-free circuit breaker for high-voltage transmission networks at CIGRE 2026

- New 420 kV, 63 kA Live Tank Circuit Breaker expands the range of technologies available for demanding high-voltage transmission applications
- Uses a CO_2/O_2 gas mixture instead of SF_6 while delivering the performance and reliability required by modern transmission networks
- Developed with support from the EU LIFE Programme, the technology expands GE Vernova's GRiDEA portfolio of high-voltage transmission solutions

PARIS, **France (August 26, 2026)** - GE Vernova Inc. (NYSE: GEV) today announced the launch of its new 420 kV, 63 kA CO_2-O_2 Live Tank Circuit Breaker, GL316c, at CIGRE Paris 2026, expanding the range of technologies available to network operators as they modernize and reinforce high-voltage transmission infrastructure.

Circuit breakers are essential safety devices on the electricity network. They rapidly stop the flow of electricity when a fault occurs, helping protect equipment and maintain the reliable operation of the wider power system. They are used in substations across transmission networks, where high-voltage power lines and major electrical equipment connect.

The new GL316c is designed for some of the most demanding applications on high-voltage transmission networks. By using a mixture of carbon dioxide and oxygen (CO_2/O_2) instead of sulfur hexafluoride, or SF_6, the technology gives network operators an additional option as they modernize their infrastructure while maintaining the performance required at 420 kV and short-circuit breaking capability of up to 63 kA.

“As transmission networks carry more power and operate under increasingly demanding conditions, equipment at the highest voltage levels has to deliver exceptional switching performance and reliability,” said **Eric Chaussin, VP and CEO Power Transmission Business**. “Advancing our CO_2-O_2 technology to 420 kV and 63 kA is an important engineering step, extending SF_6-free capability into applications where fault currents are among the most challenging on the network.”

Building on EU-supported innovation

The GL316c was originally developed for 420 kV, 50 kA applications as part of GE Vernova’s “LIFE SF6-free HV Breaker” project, co-funded by the European Union’s LIFE Programme.

Building on that development, GE Vernova’s engineering teams further tested and advanced the technology for applications requiring short-circuit breaking capability of up to 63 kA, extending its potential use across demanding transmission applications.

The new circuit breaker expands GE Vernova’s GRiDEA™ portfolio, which brings together technologies designed to support the safe, reliable and efficient operation of modern electricity networks while helping customers reduce reliance on SF_6.

The GL316c also forms part of GE Vernova’s broader work to develop alternatives to fluorinated gases across its high-voltage equipment portfolio.

From development to deployment

The new 420 kV, 63 kA circuit breaker is planned to be manufactured at GE Vernova’s facility in Villeurbanne, France.

GE Vernova is launching the GL316c during CIGRE Paris 2026, taking place August 23–28, where a full-scale 420 kV CO_2-O_2 model is being showcased at Stand C93.

Visitors can meet GE Vernova’s Electrification experts throughout the event to learn more about the technology and the company’s broader portfolio of high-voltage transmission solutions.

Learn more about GE Vernova's GRiDEA™ and SF_6-free high-voltage technologies here,

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