

Press release

Berlin, March 1, 2023

Sustainable power transmission for Norway: Siemens Energy and Fagne sign framework agreement for supply of F-gas-free technologies

Norwegian distribution system operator Fagne and Siemens Energy have signed a framework agreement for the supply of climate-friendly technologies to substations in Sunnhordland and Haugalandet in Norway. Like many operators in the Nordic countries, Fagne wants to eliminate the use of sulfur hexafluoride (SF₆), which belongs to the family of highly climate-impacting fluorinated gases (F-gases). Siemens Energy will equip the substations with climate-neutral switchgear from its F-gas-free "Blue Portfolio". Instead of SF₆ – which has 25,200 times the global warming potential of CO₂ – the switchgear will use climate-neutral synthetic air (Clean Air) in conjunction with vacuum-switching technology. This reduces the global warming potential of the switchgear to zero. The framework agreement has a total value of up to NOK 900 million (approximately €90 million).

„We are pleased to have signed this agreement with Siemens Energy. It gives us predictability and ensures the delivery of central infrastructure for Fagne at a time when the need for electricity is increasing sharply. Phasing out SF₆ gas is an important part of our sustainability strategy, which this agreement facilitates," says Ingrid Therese Tjøsvold, Director of Fagne.

Switchgear are a critical technology for expanding the power grids. They're used at the nodes of the grid, where they connect or disconnect incoming and outgoing power lines and protect equipment and consumers in the event of faults. For a long time, SF₆ was the standard solution in switchgear due to a lack of alternatives. Today climate-neutral alternatives are available for numerous applications.

"In the Nordic countries, we're currently seeing a growing awareness of the need to make not just power generation but also power transmission as sustainable as possible. With the energy transition and the increasing demand for energy, there's a huge need to expand the grid. Now is the time to set the right course using sustainable technologies that will remain in our power grids for decades. F-gas-free switchgear are simply the most sustainable and safest option," says Thomas Skånøy, Head of Grid Solutions in the Nordics at Siemens Energy.

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The Nordic countries are global leaders in F-gas-free power transmission. The Norwegian distribution system operator BKK was the world's first company to buy a 145-kilovolts (kV) F-gas-free switchgear. In 2020, Siemens Energy commissioned it at a substation at the Port of Bergen. Since then, a total of 25 more projects have been contracted in Norway alone, 16 of which have already been put into operation. For Siemens Energy, the framework agreement with Fagne is the fifth of its kind in Norway.

In many parts of the world there's a growing awareness of the need to sustainably expand the power grids: The European Commission is currently working on a revision of the F-gas Regulation that could significantly restrict the use of conventional SF₆-insulated power transmission technologies. The U.S. state of California has also set a goal to eliminate climate-damaging gases as quickly as possible. The California Air Resources Board is requiring utilities to start the phase-out of new SF₆ purchases in 2024.

More technical information for trade media:

In addition to its 145-kV and 24-kV F-gas-free switchgear, Siemens Energy's scope of supply includes the associated protection and control equipment, auxiliary systems, and arc suppression coils.

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To learn more about F-gas-free power transmission in the Nordics, please visit the following web pages:

Story about F-gas-free switchgear at Koengen substation in Bergen:

<https://www.siemens-energy.com/global/en/news/magazine/2021/eliminating-sulfur-hexafluorides.html>

Press release on framework agreement with Lyse Elnett:

<https://press.siemens-energy.com/global/en/pressrelease/siemens-energy-seals-framework-agreement-strengthen-norwegian-power-grid>

Press release on F-gas-free power transmission in Finland:

<https://press.siemens-energy.com/global/en/pressrelease/greener-finland-siemens-energy-seals-largest-order-sf6-free-gas-insulated-switchgear>

For more information on Siemens Energy's Blue Portfolio, please visit the product website:

https://www.siemens-energy.com/global/en/offerings/power-transmission/innovation/blue-high-voltage-products.html?ste_sid=8ea8a476d3b9abd39fbd56d49252ab6c

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