ABB commissions cable link to deliver clean power to Goliat offshore oil field

Zurich, Switzerland, November 30, 2015 – ABB’s high voltage alternating current (AC) cable system to supply power from Norwegian grid to Goliat floating production platform

ABB, the leading power and automation technology group, has successfully commissioned a subsea power link for oil and gas company Eni Norge, that will supply power from the Norwegian grid to the new Goliat Floating, Production, Storage and Offloading unit (FPSO). The 105.5 kilometer (km) subsea power cable system is the longest of its kind in the world.

The Goliat field, located in the Barents Sea above Norway, is the northernmost oil field in the world. It will process up to 100,000 barrels of oil a day and store nearly a million barrels of oil, which will then be transferred to shore by tankers.

ABB’s high-voltage alternating current (AC) three-core cable system includes a 104-km long static cable section on the sea floor, and a 1.5-km long dynamic cable section. The high power rating enables an increased energy supply if needed, to provide power for additional fields in the future using the same cable system.

The 75-megawatt (MW), 123 kilovolt (kV) capacity link will supply about 50 percent of the platform’s electricity needs from shore, cutting carbon dioxide emissions by half as a result of reduced fossil fuel consumption in the gas turbines. ABB’s turnkey solution includes the design, engineering, supply, installation and commissioning of the cable system.

The dynamic cable section hangs in the water between the platform and the seabed and has been specifically designed to withstand substantial mechanical stress and fatigue caused by currents, waves and the vertical movement of the platform. An important feature of the solution is an innovative corrugated metal sheath for this section, designed to withstand the rigors of time.

“Reliable shore supplied power from the mainland grid will help to reduce the Goliat platform’s environmental impact, and ensure a safe and efficient operation,” said Patrick Fragman, Managing Director of ABB’s Grid Systems business, a part of the company’s Power Systems division. “This is another example of ABB’s constant quest for innovation and reinforces our position as a global leader in high-voltage cable technology.”

ABB’s rugged high-voltage polymeric XLPE (cross-linked polyethylene) submarine cables minimize electrical losses and have an excellent tensile strength, making them ideal for harsh marine environments. The cable also has integrated fiber optics to monitor temperature and provide general communication services. ABB has commissioned more than 25 direct current (DC) and hundreds of AC cable links around the world, including power links to oil and gas platforms in the Persian Gulf and North Sea.

ABB (www.abb.com) is a leader in power and automation technologies that enable utility, industry, and transport and infrastructure customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in roughly 100 countries and employs about 140,000 people.

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