

Shipping LNG in arctic seas :
in the track of the ice-breaking LNG Carrier Christophe de Margerie

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北極海でのLNG輸送: 砕氷LNG船 Christophe de Margerieを例にとって

TOTAL – Gas, Renewables &
Power/Shipping

Total and his partners are developing the Yamal LNG project located in the Yamal Peninsula (Russia) to produce the huge gas reserves of the south Tambey fields. The liquefaction plant is located in Sabetta, on the west bank of the Ob River, north of the arctic Circle; in addition to the challenges of building a liquefaction plant and storage tanks on permafrost and in harsh environment, the export of LNG by sea is the essential link of the gas chain: effectively the LNG carriers have to operate year-round, using the Northern Sea Route, which is ice-bound for several consecutive months.

This implies also to design a new Port accessible year-round for site preparation, offloading of materials and equipment through marine offloading facility, for accommodating the modules carriers, and the main LNG and condensate jetties for the commercial operations, with proper ice-management, to export the 16.5 Mtpa of LNG and 1.2 Mtpa of condensate products.

The design of innovative ice-breaking merchant vessels has been essential for the project to ensure the safe and reliable shipping solution; the ships present unique technical solutions and winterization features and can operate year-round without the assistance of ice-breakers.

As of today, the first Arc7 LNG Carriers of the dedicated fleet of 15 units have been delivered, after successful ice trials and the first unit of the three 5.5 Mtpa LNG trains of the plant is ready for start-up as a live testimony of the pioneer spirit of the project stakeholders.
