3.2.2. Implementation of investment projects -Key results



Dual-fuel Aframax tankers

In 2018 Sovcomflot put into operation three LNG-fuelled Aframax crude oil tankers - Gagarin Prospect, Lomonosov Prospect, and Mendeleev Prospect. These are the world's first Aframax tankers specially designed to use LNG as the primary fuel. Another two similar vessels, Korolev Prospect and Vernadsky Prospect, were added to the Group's fleet by the end of 1Q 2019. The sixth vessel of the series, Samuel Prospect, is under construction.

The series of SCF's "green" tankers has set a new standard of environmental sustainability in the maritime shipping industry. The tankers' main engines, auxiliary engines, and boilers are dual-fuel (using conventional ship fuel and LNG). In addition, these vessels are fitted with Selective Catalytic Reduction (SCR) technology, which enables compliance with Tier III regulations governing NOx emissions (Annex VI to the International Convention for the Prevention of Pollution from Ships) even when running on diesel fuel. SCF's "green" tankers with a deadweight of 114,000 tonnes each have a hull with a high ice class (1A). In February 2018 Sovcomflot Group and Shell entered into long-term charter agreements for two vessels of the series. Shell also provides LNG bunkering.

SCF's initiative was highly appreciated by industry experts: in December 2018 Sovcomflot Group won the Environment Award at the Lloyd's List Global Awards 2018.

Serial construction of "green" tankers has started at Russian shipbuilding facilities, at the Zvezda Shipbuilding Complex (Primorsky Krai), as part of cooperation between Rosneft and Sovcomflot. In September 2018, an order was placed for the construction of two Aframax crude oil tankers using LNG as the primary fuel, to be subsequently charted to Rosneft under longterm time charter parties. The first vessel is scheduled to be commissioned in 2022. In addition, an order for the construction of three MR product tankers using LNG as the primary fuel was placed with the Zvezda Shipbuilding Complex at the end of 2018. The tankers are designed to transport petroleum products and gas condensate and will be chartered to NOVATEK under long-term time charters. The entry into force of the shipbuilding contracts and time charters concluded in 2018 is conditional upon all conditions precedent being fulfilled in 2019.



A new Arctic shuttle tanker of the Shturman Albanov series for the Novy Port project

In July 2017 Sovcomflot Group entered into a shipbuilding contract for an Arctic shuttle tanker with ice class Arc7 in continuation of the Shturman Albanov series. Sovcomflot and Gazprom Neft, the project's operator, have entered into a longterm time-charter agreement for the vessel under construction. The new Arctic shuttle tanker is scheduled to be delivered in October 2019.

Three shuttle tankers of the series, each with a deadweight of 42 thousand tonnes, are already employed on the project for the development of the Novy Port oil and gas condensate field. These vessels have no analogues in the world, as they can operate in the Arctic seas year-round at temperatures down to -45° C, and their draft enables them to manoeuvre freely in the shallow Gulf of Ob.

About

Strategy

<u>Group</u> performance Corporate governance Share capital and dividend policy Sustainable development



Ice-breaking platform supply vessel Yevgeny Primakov

In January 2018 Sovcomflot put into operation the standby vessel with ice class Icebreaker ICE-15 Yevgeny Primakov, the fourth in the series of multifunctional icebreaking vessels built to order for SCF Group to service offshore platforms of the Sakhalin-2 project (the Sea of Okhotsk). Today these vessels are among the best in their class. They were designed by taking into account the difficult navigation and ice conditions in the Sea of Okhotsk.

In 2014 Sovcomflot Group and Sakhalin Energy entered into time charter agreements providing for operation of all four vessels under the project during 20 years. In total, seven SCF's multifunctional icebreaking support and supply vessels are employed in the Sakhalin-2 project. Sovcomflot Group is the world's leader by the number of such vessels.

In February 2019 Offshore Support Journal, an international trade publication, named Yevgeny Primakov the winner of the Support Vessel of the Year category.



Fifth-generation Atlanticmax LNG carriers

In November 2018 Sovcomflot Group entered into a credit facility agreement with a consortium of three European banks to finance the construction of a fifth-generation Atlanticmax LNG carrier, which will be operated under a long-term contract with Total. The new vessel will have a capacity of 174,000 cubic metres of LNG and will feature an upgraded Mark III Flex cargo system. The vessel will be fitted with two low-speed, dual-fuel X-DF engines. Such a propulsion plant is more reliable and requires less time and resources for planned repairs compared to a dual fuel diesel electric engine (DFDE). This type of gas carrier consumes 30 % less bunkers than fourth-generation gas carriers. A small amount of boil-off gas and a boil-off gas partial reliquefaction system will enable the charterer to reduce cargo losses during long voyages and waiting time, giving vessels of this type a competitive advantage. In addition, two similar vessels to be employed under time charter agreements with Shell are being built to order for Sovcomflot Group.

3.2.3. Implementation of the shipbuilding programme

In 2018 Sovcomflot Group's shipbuilding programme included 13 vessels of four different types, including those intended for the Sakhalin-2 and Novy Port projects.

During the reporting period, Sovcomflot Group put into operation four new vessels with a total deadweight of about 340 thousand tonnes: a multifunctional icebreaking vessel and three dual-fuel Aframax tankers.

As at 31 December 2018 Sovcomflot Group's order portfolio included nine vessels, with a total deadweight of 858,000 tonnes.

Annexes