Reduction of GHG emissions

The Company works to reduce its GHG emissions by supporting the green economy. Its initiatives are focused on energy saving, green solutions, renewable and alternative energy sources.

As compared to the base year of 1990, Russian Railways' GHG emissions in 2018 reduced by 29.1 mt of ${\rm CO_2}$, to 37.8 mt (down 43.5%). The effect was achieved through:

- upgrade of existing boilers and their transition to greener fuel;
- reduced fuel and energy consumption;
- replacement of the outdated rolling stock with newer, more environmentally friendly options.

Energy efficiency and conservation

Sustainable development

Russian Railways maintains leadership in energy efficiency and environmental friendliness among global freight and passenger railway companies. Russia ranks first globally in terms of energy efficiency in rail freight transportation outperforming all of the European railways combined, as well as railways in China, Japan, India and the USA. As regards energy efficiency in passenger transportation, Russia comes in fourth after India, China, and Japan.

The Company implements its Energy Strategy through 2020 and potentially through 2030, updated in 2016, as well as the Energy Savings and Energy Efficiency Programme (the "Energy Efficiency Programme").

Compared to 2017, our key achievements are:

- reduced per unit fuel and energy consumption for train traction by 0.4%;
- increased use of regenerative power by 8.7%;
- reduced per unit fuel and energy consumption for heating and standby locomotive transportation by 2.5% for electric traction and by 1.5% for diesel traction.
- 1,800 pieces of resource and energy saving equipment installed for a total amount of RUB 1.97 bn. (as part of the Energy Efficiency Programme).

In 2018, the Company's divisions implemented over 12,500 energy efficiency initiatives and saved:

- > 511.5 m kWh of electricity for RUB 1,566.8 m;
- > 34.8 kt of diesel fuel for RUB 1.451.8 m:
- > 0.8 kt of gasoline for RUB 34.4 m;
- > 73,400 Gcal of heat energy for RUB 139.8 m;
- 10 million m³ of natural gas for RUB 50.6 m;
- 15.4 kt of coal for RUB 32.1 m;
- > 10.3 kt of heating oil for RUB 142.9 m.

The total saving of fuel and energy resources in 2018 amounted to 4,741 TJ (or RUB 3.418 bn), 47.1% above the target. This is one of the Company's energy efficiency records since 2010.

Charity

The Company has a Charity and Sponsorship Policy as approved by the Board of Directors on 8 November 2016. It gives the priority to institutions, funds, and performance groups working with Russian Railways.

The charity spending in 2018 amounted to ca. RUB 3 bn.

As part of the Year of Volunteers in Russia, the Group supported over 300 initiatives with more than 80,000 participants. The Best Corporate Volunteering Programme competition reviewed 341 projects aimed to promote healthy lifestyle, help seniors and children, and preserve the environment and cultural heritage.