

#case study

GREEN

Eco-friendly rolling stock

TRAFFIC

Russian Railways is actively engaged in a number of projects to create eco-friendly traction stock running on alternative energy sources.

This will allow for substituting

11 % of diesel fuel
with natural gas by 2025,
with the figure to increase
TO 25 % by 2030



Natural gas

In 2021, we continued to work on configuration and key equipment options to convert shunting and mainline diesel locomotives into gas-powered ones. Another work stream underway is the development of new locomotives running on natural gas.



Hydrogen cells

In Sakhalin, Russian Railways started piloting trains running on hydrogen fuel cells. The project seeks to create a comprehensive hydrogen technology comprising hydrogen production and transportation, train operation and maintenance, as well as building an expert and training centre. The advantages of hydrogen-based power sources include lower noise from rolling stock and no GHG emissions.

Testing of the first locomotive
is scheduled for

Q3 2022

Commercial production
of locomotives is expected
to begin

IN 2023



Batteries

In 2021, we finalised design documents and started pilot manufacturing of two hybrid EMKA2 shunting locomotives. We are also designing a Lastochka-based hybrid electric train powered by lithium-ion batteries.

