

In order to maintain the entire passenger carriage fleet equipped with electric heating to reduce atmospheric air pollution, JSC FPC formulated a targeted investment programme on equipping passenger train preparation fleets with power supply devices with an implementation period of 2018 through to 2025. The total amount of investment funds allocated under the programme is RUB 3.7 billion.

In 2019–2023, the Company disbursed RUB 1.9 billion under this programme. During this period, 15 high-voltage heating points with 47 high-voltage columns were built. This made it possible to reduce coal consumption by 25,550 tonnes, due to which the amount of greenhouse gas emissions into the atmospheric air decreased by 41,400 tonnes, or 24%.

Sustainable water use

Total water use (water consumption), million m³

Water consumption	2021	2022	2023	vs. 2022, %
Total	5.7	5.2	4.6	88.5

Total water discharge, million m³

Wastewater discharge	2021	2022	2023	vs. 2022, %
Total	3.27	3.24	3.14	96.9
of these				
• Wastewater discharge into the environment	0.06	0.04	0.04	0
• Discharge of wastewater into centralised sewage systems	3.21	3.2	3.1	96.9

In order to reduce the amount of waste water that may have a negative impact on the environment and operation of centralised sewage systems, the Company implements programs for retrofitting treatment facilities and carriage washing facilities by furnishing them with a closed-loop water supply system and local treatment facilities.

In particular, the following works are carried out:

- Retrofitting carriage washing facilities featuring water recirculation systems
- Upgrading water supply and sewer networks
- Retrofitting the Company's buildings and structures with water consumption and discharge meters

Energy Efficiency

In order to improve energy efficiency and reduce the energy intensity of production activities, the Company annually reduces costs for the use of fuel and energy resources, by doing as follows:

- Purchasing new, advanced and energy-efficient rolling stock
- Using energy-saving technologies in the depot and site lighting systems (LEDs and smart control systems)

- Upgrading and converting boilers from liquid fuels to gas
- Equipping buildings and structures with electricity and heat metering devices
- Installing high-voltage charging points at passenger train preparation sites

Progress in the use of fuel and energy resources

Use of fuel and energy resources in physical terms

Resources	2021	2022	2023	vs. 2022, %
Electric energy, million kWh	111.942	113.134	114.324	101.1
Diesel fuel, '000 tonnes	3.139	1.646	1.334	81
Coal, '000 tonnes	79.198	84.627	87.365	103.2
Fuel oil, '000 tonnes	10.797	9.998	9.567	95.7
Natural gas, million m ³	22.917	22.744	23.709	104.2
Petrol, '000 tonnes	0.603	0.591	0.568	96
Briquettes, '000 tonnes	2.725	2.575	2.895	112.4
Pellets, '000 tonnes	0.452	0.280	0.165	58.9
Firewood, '000 m ³	0.074	0.080	0.012	14.9
Total, '000 TFOE	150.231	153.099	155.866	101.8

Use of fuel and energy resources in monetary terms, RUB million

Resources	2021	2022	2023	vs. 2022, %
Electric power	662.7	699.4	787.1	112.5
Diesel fuel	150.2	89.6	78.7	87.8
Coal	279.0	362.4	443.5	122.4
Fuel oil	213.2	205.9	170.1	82.6
Natural gas	139.9	148.3	167.3	112.8
Petroleum	32.8	34.0	33.0	97.1
Briquettes	22.4	25.5	31.0	121.3
Pellets	3.3	2.3	2.0	87
Firewood	0.2	0.4	0.0	4.5