

ENERGY EFFICIENCY

Energy consumption by resource type¹

Fuel	2017		2018		Change 2018/2017 (%)
	Units	MJ	Units	MJ	
Gasoline, liters	80,720.51	2,643,800.00	78,924.09	2,584,862.05	-2.2
Diesel, liters	4,524.44	159,600.00	7,048.00	248,616.08	55.8
Electricity, kWh (excluding regional subsidiaries outside Moscow)	10,651,436.95	38,345,173.02	10,996,641.71	39,587,909.75	3.2
Electricity, kWh (including regional subsidiaries outside Moscow)	10,897,701.47	39,231,725.27	11,246,767.20	40,488,361.92	3.2
Heat, GCal	4,590.05	19,990,310.07	5,029.38	21,903,482.50	9.6

Electricity consumption is monitored at all offices of the Exchange, NCC and NSD, both owned and leased. Heating costs are measured at offices in Moscow (Bolshoi Kislovsky Pereulok, Sredny Kislovsky Pereulok, Vozdvizhenka and Spartakovskaya Ulitsa) and at the Ekaterinburg subsidiary. At other facilities heating costs are included in rental expenses, and monitoring is the responsibility of the landlord. Fuel consumption is measured at all Group companies and facilities.

The reduction in gasoline consumption is due to a decrease in the use of company cars. Diesel fuel consumption in 2018 increased due to more frequent use of the diesel power generator as a result of cuts from the municipal grid, as well as a longer operating time. At the same time, use of diesel vehicles also increased. Higher heating costs were the result of a colder winter compared to 2017. The increase in electricity consumption was linked to the installation of new air conditioners and heaters.

A number of measures have been taken to reduce energy consumption:

- ▶ during non-office hours and on weekends corridor lighting, ventilation systems and office cooling systems are turned off;
- ▶ it is now possible to fully shut down air conditioning systems during the winter months;
- ▶ during the repair and renovation of the premises, the continued use of energy-saving LED lamps is planned on top of the 530 lamps that have already been installed in the period from 2016 up to 2018 (13.3% of the total amount).

Moscow Exchange uses two data centers – Dataspace1 and M1 – as part of its activities. Electricity consumption at the data centers is the responsibility of the centers themselves, which maintain independent energy consumption records, and electricity costs are included in payment for their services. To give a more complete picture of the Exchange's environmental impact, below are data on MOEX's energy consumption at the data centers.

1. Other types of energy resources (including nuclear, electromagnetic, oil, fuel oil, natural gas, coal, oil shale, peat) were not used during the accounting year.

Data center energy consumption, kWh¹

	2017	2018	Change (%)
Electricity	4,958,557	4,768,674	-3.8

In 2018, gasoline costs increased due to a change in the make/model of vehicles being used, as well as due to a rise in gasoline prices. The increase in electricity costs was due to higher consumption as well as an increase in tariffs in 2018. Higher heating costs compared to 2017 were the result of a colder winter and an increase in heat transfer agent tariffs from 1 July 2018.

Energy costs, RUB thousand²

Resource	2017	2018	Δ 2018/2017, RUB thousand	Change 2018/2017 (%)
Gasoline	2,796.34	3,212.77	416.43	14.89
Diesel fuel	144.94	291.86	146.92	101.37
Electricity	54,192.25	56,495.66	2,303.41	4.25
Heat	6,438.40	7,500.09	1,061.69	16.49
Total	63,571.93	67,500.38	3,928.45	6.18

1. Data are not included in the company's resource usage tables and are included solely to simplify the calculation of indirect environmental impact

2. Excluding VAT