2018 ENVIRONMENT

NLMK

ANNUAL REPORT

Contents

Environmental protection

Key figures 2018

$80 M
allocated to investment projects with an environmental impact

97%
of water in production is recycled and reused

89%
of generated waste is reused (not including mining waste: overburden and tailings)

Material topics

- Water
- Discharge and waste
- Biodiversity
- Emissions
- Waste
- Supplier environmental assessment
- Environmental compliance

Key events in 2018

- Rehabilitation of over 22 hectares of Stagdok and its subsequent transfer to Lipetsk Municipal District
- In 2018 the the volume of specific emissions fell by 0.6 kg/t due to the implementation of Environmental Programme

United Nations Global Compact principles

Principle 7 Businesses should support a precautionary approach to environmental challenges

Principle 8 Businesses should undertake initiatives to promote greater environmental responsibility

Principle 9 Businesses should encourage the development and diffusion of environmentally friendly technologies

Global Sustainable Development Goals

Awards

- NLMK won a gold medal in the 100 Best Organizations in Russia: Environment and Environmental Management contest
- NLMK Group was one of the winners of the international Environmental Culture: Peace and Reconciliation contest; the Group's Steel Tree volunteer programme won in the Social Initiatives Aimed at Promoting an Environmental Culture category
- At the annual Metal-Expo in 2018, NLMK received a silver medal for its project to refit its coke chemical capturing units to integrate coke gas streams from coke batteries Nos. 1, 2, 5, and 6
- Altai-Koks won the Environmental Activity and Resource Saving category in the 15th High Social Performance Mining and Metallurgical Enterprise Industry Competition
- For the second consecutive year NLMK Kaluga was a winner in the regional Eco Organization 2018 competition, taking first place among major corporations in the Protecting Environmental Safety and Preserving a Healthy Environment category

Our approach to managing environmental protection

The efficient use of natural resources and having a responsible attitude towards the environment are important aspects of NLMK's work. The Company objectively assesses environmental risks and is committed to minimizing them. It allocates significant resources to various environmental programmes and the implementation of innovative technologies.

NLMK adopts a comprehensive approach to environmental management, focusing on improving energy efficiency, reducing air emissions by upgrading equipment, reusing and processing waste, conserving water resources, and rehabilitating contaminated land.

Environmental policy

Our environmental policy is a high-level Company document that reflects the responsible and sound approach that NLMK takes to managing activities relating to environmental protection and safety. Our policy also confirms the commitment of our subsidiaries to a number of principles, including adhering to Russian and international environmental protection standards, minimizing the risk of environmental impacts, and disclosing information about the environmental activity of the Group's companies.

Organizational structure

The Company is committed to ensuring that all industrial processes are eco-efficient and conform to best global practices.

NLMK's senior management team is actively involved in the environmental management process. The Group's President and Board of Directors review environmental performance on an annual basis. The Management Board's Investment Committee is also directly involved in reviewing NLMK's Environmental Strategy and Environmental Programme. The Investment Committee includes all vice-presidents and directors of NLMK companies. The Investment Committee devotes special attention to the results of the annual environmental assessment, approves the investment budget for projects aimed at reducing environmental impacts, and oversees the investment budget for the Environmental Programme and its execution.

The Environmental Department coordinates environmental management as part of the unified corporate occupational health, safety, and environment system, including managing environmental risks and implementing advanced environmentally friendly technologies.

Each Group company has an environmental protection expert, responsible, among other, for implementing systems that assess the maturity of environmental indicators and improve environmental management.

ENVIRONMENTAL MANAGEMENT STRUCTURE

ENVIRONMENTAL POLICY OBJECTIVES

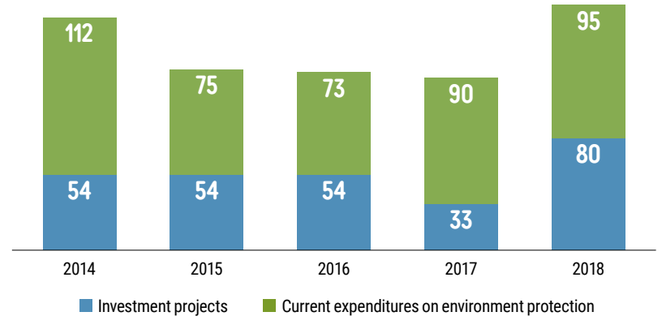
1. Ensuring that industrial processes are eco-efficient
2. Emulating global best practices for environmental impacts and resource use
3. Becoming an industry leader in specific environmental impact indicators

Targets and key performance indicators

NLMK recognizes the importance of efficient environmental management. As part of its Environmental Programme 2022, which is reviewed and supplemented annually following risk assessment, the Company has developed objectives that include the following:

- Minimizing the impacts that the Group's Russian and international companies have on the environment, and complying with all applicable environmental standards and environmental risk management commitments
- Reducing discharges into bodies of water across Group companies
- Increasing the waste reuse rate at NLMK Group to 96%
- Reducing specific emissions at NLMK Group's Russian assets to 18 kg/tonne of steel
- Ensuring that specific emissions of greenhouse gases remain below the industry average.

NLMK GROUP EXPENDITURES ON ENVIRONMENTAL PROTECTION, 2014–2018, $ M



Certification

NLMK works continuously to systematize its environmental management operations in accordance with modern international standards. An environmental management system operates within NLMK Group, which enables it to identify and monitor the environmental aspects of its activity.

The ISO 14001:2015 standard has been implemented at 14 of the Group's facilities. The certified companies include:

- NLMK Lipetsk
- VIZ-Steel
- Altai-Koks
- Dolomit
- NLMK Kaluga
- NLMK Metalware
- NLMK Ural
- Stagdok
- Stoilensky
- NLMK Verona
- NLMK DanSteel
- NLMK Clabecq S.A.
- NLMK La Louvière
- NLMK Strasbourg.

In order to ensure a systematic approach to environmental management at the Group's facilities, monitoring and recertification audits for compliance with ISO 14001:2015 are carried out on a regular basis.

Investment in environmental protection

Each year NLMK Group commits significant resources to ensuring the accident-free operation of equipment and the implementation of investment projects that have an environmental impact. Expenditure on environmental management over the reporting period totalled $175 million, a significant proportion of which was allocated to NLMK Lipetsk.

Monitoring and control

The Company conducts internal audits to assess environmental impacts. It also has a production control system in place. Internal environmental audits involve the comprehensive monitoring of operations at NLMK companies, including treatment facility performance tests, measures to reduce the environmental impacts of generated waste, and implementing an environmental production plan to reduce specific air emissions.

In order to monitor the implementation of resolutions, prevent non-compliance with effluent discharge standards, and monitor sources of emissions and atmospheric quality at NLMK companies, environmental production monitoring procedures are implemented, with support from accredited laboratories. These procedures have been agreed with state supervisory bodies and are regulated by legal documents. GRI 303-2

Supervisory bodies conduct regular annual audits, both scheduled and unscheduled, of Group companies to ensure compliance with Russian legislation as well as stakeholder expectations. A total of 81 audits were carried out by local environmental supervisory bodies in 2018. No significant fines or non-monetary sanctions were imposed on NLMK Group over the reporting year, and no legal proceedings were brought against the Group related to seeking compensation for damage to the environment or to third parties. GRI 307-1

NLMK also engages employees at all levels in the environmental monitoring process, by giving them an opportunity to register in an online system where they can note and propose solutions to issues associated with environmental safety and support for environmental welfare.

Training

As a Company that is committed to improving the efficiency of its activities and reducing its impact on the environment, NLMK Group works to boost the environmental protection skills and competencies of its employees.

The Company devotes special attention to fostering a culture of environmental awareness among employees at its companies and in communities in the regions where it operates. A series of educational initiatives and materials, including the Key Rules for Protecting the Environment document and Protecting the Environment distance training course, has been developed for the benefit of all Company staff. Special environmental protection training consists of modules covering the use of dust and gas cleaning facilities and treatment equipment, how to eliminate situations which could lead to environmental issues, and waste handling.

ALL EMPLOYEES ARE PERSONALLY INVOLVED IN RESPONDING TO ENVIRONMENTAL ISSUES

▶ In order to continuously improve environmental management an internal environmental improvement system (IEIS) has been implemented at 10 companies of the Group, including the Lipetsk site and Stoilensky. This is the only project implemented by steel producers in Russia that harnesses assistance from employees to identify and prevent potential environmental incidents on a continual basis. Monitoring parameters are determined at each facility and its surrounding territory, and then monitored by employees. Once identified, potentially harmful situations are photographed and entered into a computer system. The individual responsible is identified, and a timeframe established for eliminating the potential threat.

The IEIS is an example of how environmental management processes can be improved and environmental safety safeguarded through the personal involvement of all staff members. In 2018 major training sessions for middle managers on the organization and functioning of the IEIS were conducted at Stoilensky, Stagdok, and Dolomit by environmental protection specialists from NLMK Group companies. All employees at NLMK Group's Russian companies can now use the IEIS to analyse issues and to formulate a plan for eliminating them.

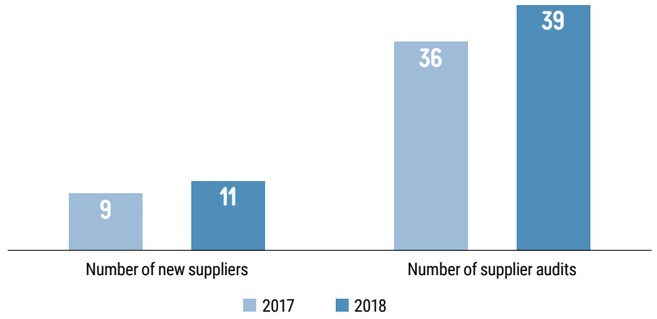
Supplier environmental assessment

A qualifications procedure for all suppliers has been introduced within NLMK Group, which covers compliance with environmental standards. The environmental criteria for assessing suppliers are set out in NLMK Group's regulatory documents.

One of the key environmental criteria that the Group employs in assessing suppliers is compliance with Russian environmental legislation. All suppliers of raw materials, supplies, and equipment to NLMK Group, as well as suppliers of services (contractor organizations), undergo assessments for compliance with Russian environmental legislation as part of qualification and audit procedures. Contractors who, following the qualification and audit procedures, have been found not to meet the established criteria are not permitted to supply raw materials, supplies, or equipment, or to provide services to NLMK Group companies. In 2017–2018, 100% of new service providers were screened using environmental criteria. For contractor organizations, assessments are based on an internal document entitled Standard Environmental Protection Requirements for Contractor Organizations, which was approved in 2016. GRI 308-1

Compliance with Russian environmental legislation by qualified suppliers is assessed at the NLMK Group through supplier audits, which serve to confirm that supplier activities comply with the environmental criteria applied by NLMK Group. These audits also confirm that suppliers' environmental impacts are not significant enough to indicate non-compliance – this would lead to a decision to break off relations with the contractor. In addition, all products supplied to NLMK companies come with safety data sheets, which regulate potential hazards associated with handling products and prescribe respective necessary precautions.

SUPPLIERS OF FEEDSTOCK, MATERIALS, AND EQUIPMENT TO NLMK GROUP SCREENED USING ENVIRONMENTAL CRITERIA DURING AUDITS GRI 308-1



SUPPLIERS SUBJECT TO MEASURES TO IMPROVE ENVIRONMENTAL COMPLIANCE FOLLOWING AUDITS (% OF TOTAL AUDITS CONDUCTED) GRI 308-2

INDICATOR	2017	2018
Number of new suppliers	69	80

Membership and participation in organizations

NLMK works with the world's largest steel producers to establish an effective dialogue on issues surrounding the rational use of natural resources. In particular, NLMK Group collaborates with the World Steel Association (WSA) through participating in awareness-raising events on environmental management related to the Company's operations. As part of its collaboration with the WSA, the Company collects and submits data on sustainable development indicators on an annual basis. In 2018 NLMK Group signed the Sustainable Development Charter, which articulates the commitment of WSA members to treating steel as a key element in a sustainable world and their willingness to be guided by environmental, social, and economic sustainability principles.

With a view to promote sustainable development principles, Stoilensky became one of the first NLMK Group companies to join the German Climate Technology Initiative (DKTI) and the International Climate Initiative (IKI) in Russia. As part of this collaboration, a project is being implemented across a number of companies to introduce the best available technology. At the request of environmental protection agencies in Russia and Germany, this work is being coordinated by the German Corporation for International Cooperation (GIZ).

As of the end of 2018, NLMK was in TOP 10 most environmentally responsible Russian mining and steel companies according to a World Wildlife Fund (WWF) report. The main aim of the report published by WWF Russia was to rank Russian companies according to transparency in matters of environmental responsibility. The research examines the activity of 33 major companies, and has been published since 2015, with the support of the UN Development Programme, the Global Environment Facility, and the Russian Ministry of Natural Resources and the Environment.

Water resources GRI 303-1, 303-2

Water is an essential resource for NLMK Group's industrial processes. The Group is committed to reducing the volume of water that it consumes, and devotes considerable efforts to lowering its water intake volumes in favour of reusing water. The Group's companies are likewise focused on reducing the volume and improving the quality of wastewater produced.

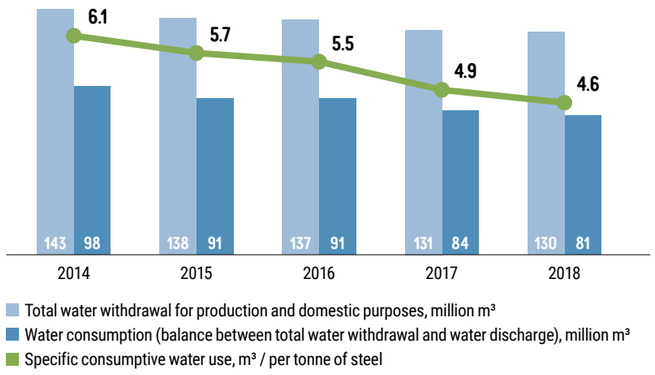
Water withdrawal GRI 303-1, 303-2

NLMK companies withdraw a small proportion of their water from external sources for production and drinking purposes (less than 4% of the Group's total water consumption). For industrial water supplies, the companies use water from surface water bodies, underground sources, and rainfall. NLMK Group companies do not use wastewater from other organizations, or water from municipal supply systems for industrial processes. Stoilensky, Stagdok, Dolomit, NLMK Metalware, Vtorchermet NLMK, NLMK Verona, and NLMK Strasbourg do not withdraw water from surface water bodies. The Group companies do not withdraw water from wetlands included on the Ramsar List of Wetlands of International Importance, or from water bodies located within environmental conservation sites.

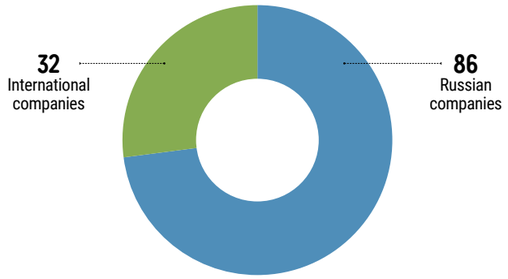
The water bodies that supply NLMK's companies are assessed as being not particularly vulnerable owing to their size, role, or status as being rare, threatened, or endangered. The companies withdraw water in accordance with current permits and have no significant impact on the water sources in question. Water withdrawal by NLMK Group companies does not exceed 2.5% of the average annual water flow volume. GRI 303-5

NLMK nonetheless devotes considerable efforts to reducing its water withdrawal year-on-year, via equipment upgrades. The volume of water withdrawn for production purposes in 2018 was 884,000 m³ lower than in the previous year, thanks to measures to reduce the water supply to the recycling system at the Altai-Koks thermal power station.

TOTAL VOLUME OF WATER CONSUMED BY NLMK GROUP, 2014–2018 GRI 303-3, 303-5



TOTAL VOLUME OF WATER WITHDRAWN FOR NLMK GROUP PRODUCTION NEEDS BY REGION, 2018, M M³ GRI 303-3



TOTAL VOLUME OF WATER WITHDRAWN FOR NLMK GROUP PRODUCTION NEEDS BY SOURCE, 2014–2018, THOUSAND M³ GRI 303-3

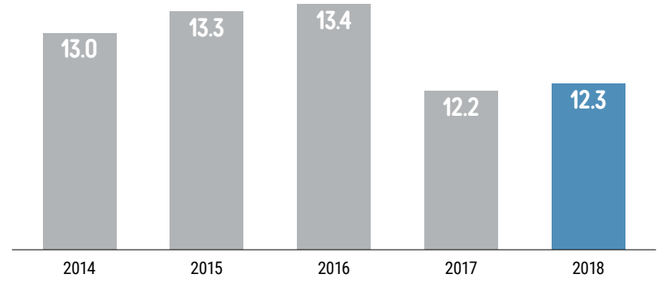
SOURCE TYPE	2014	2015	2016	2017	2018
Surface water	67,680	63,153	61,513	60,896	60,107
Ground water	62,078	59,424	62,383	57,839	57,714
Rainwater collected and stored by organization	264	155	118	75	105
GROUP TOTAL	**130,022**	**122,732**	**124,015**	**118,810**	**117,926**

Water recycled and reused

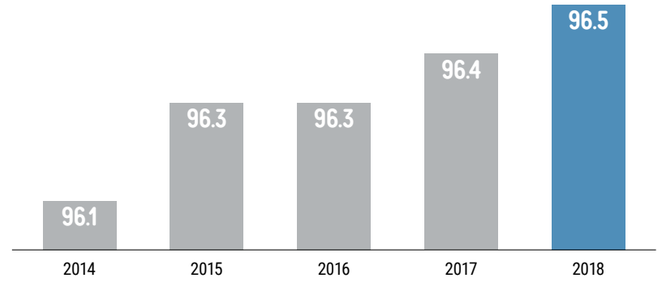
In order to reduce their negative impact on water resources, the majority of NLMK Group companies are equipped with water recycling systems.

Water recycling solutions have been established at NLMK, Altai-Koks, VIZ-Steel, NLMK Kaluga, Stoilensky, NLMK Ural, NLMK Metalware, NLMK DanSteel, NLMK Indiana, NLMK Pennsylvania, NLMK Sharon Coating, NLMK Verona, NLMK Clabecq, and NLMK La Louvière. These solutions include both local systems for individual facilities and entirely self-contained subsidiary-wide systems, and facilitate a reduction in both water withdrawal and industrial wastewater discharges into surface bodies of water.

WATER WITHDRAWAL (CONSUMPTION FROM WATER UTILITIES) FOR THE POTABLE WATER SUPPLY AT NLMK GROUP COMPANIES, 2014–2018, M M³ GRI 303-3



PROPORTION OF RECYCLED WATER IN TOTAL WATER CONSUMPTION BY NLMK GROUP COMPANIES, %



SWAN LAKE ENVIRONMENTAL PARK – A NATURAL INDICATOR OF THE CLEAN ENVIRONMENT

▸ Swan Lake Environmental Park was created by NLMK employees in 1978. It is the only bioindicator in Russia and the former Soviet Union that is situated on the territory of an industrial site. The lake is filled with process water from the Lipetsk site that has undergone treatment following its use in production. The environmental park is now home to 51 species of ornamental birds (415 birds in all). Filled with process water from Novolipetsk's recycling system, the lake is also inhabited by fish – this helps ensure that the waterfowl have a natural diet.

Discharge

Reducing the level of discharge into bodies of water across NLMK companies is one of the objectives of the Environmental Programme 2022.

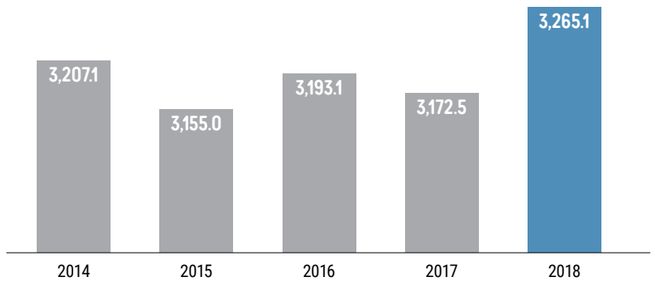
An overall decline in the volume of pollutant discharges was observed in 2017–2018, thanks to the introduction of a series of measures to reduce the discharge of domestic wastewater into water bodies in 2018.

Each company makes use of water purification and treatment technologies, whereby the quality of wastewater, as well as water used for industrial and domestic purposes, is processed to meet the standards set by applicable regulations. Appropriate methods are applied according to the type of wastewater in question (mechanical purification, oil/water interceptors, biological purification, decontamination). All discharges have a concentration of total dissolved solids of less than 1,000 mg/l. No discharges are made without preliminary treatment. GRI 303-4, 306-1

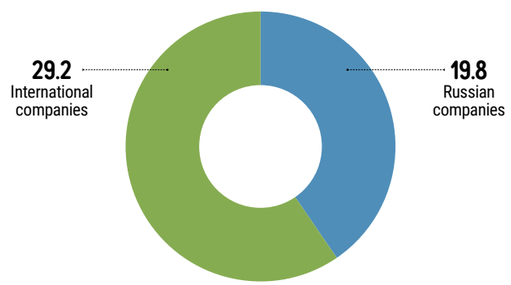
USING THE BEST AVAILABLE WASTEWATER PURIFICATION TECHNOLOGY

▸ Wastewater at the coke shop at NLMK's Lipetsk site is purified by a biochemical facility that was built using the best available technology. The technology has made it possible to purify wastewater to a high degree, removing up to 95% of nitrites and nitrates and enabling water to be reused in the closed water recycling system. More than RUB 2 billion has been invested in the project.

VOLUME OF RECYCLED WATER AT NLMK GROUP COMPANIES, M M³



TOTAL VOLUME OF DISCHARGE BY NLMK GROUP, INCLUDING RUSSIAN AND INTERNATIONAL COMPANIES, 2018, M M³ GRI 303-4, 306-1



TOTAL VOLUME OF DISCHARGE BY RECEIVING WATER BODY, 2014-2018, THOUSAND M³ GRI 303-4, 306-1

INDICATOR	2014	2015	2016	2017	2018
Total volume of water discharge for NLMK Group	**44,915**	**45,194**	**46,479**	**47,342**	**48,953**
into surface water bodies, including rivers, lakes, reservoirs, and canals	42,899	43,151	44,391	45,238	46,830
including into seas and oceans	233	194	217	246	297
transferred to third-party organizations for treatment	2,016	2,043	2,088	2,104	2,123
Discharge of pollutants, tonnes	**295**	**15,509**	**16,223**	**15,710**	**14,612**

Air emissions

NLMK Group devotes considerable efforts to reducing its air emissions and has set a target of reducing specific air emissions to 18 kg/tonne of steel by 2022.

In order to attain these targets, the Group is implementing a range of measures to upgrade its purification equipment and transition to using the best available technology (BAT). More specifically, over the past three years, NLMK Group has completed 11 major projects to reduce dust emissions, investing around RUB 1.7 billion in total. As a result of these measures, by the end of the year the Company was operating over 500 modern dust and gas purifying facilities, which not only capture more than 98% of substances, but also feed these back into production.

LIPETSK – ONE OF RUSSIA'S CLEANEST STEELMAKING CENTRES

▸ Since 2014 Lipetsk, which is home to NLMK Group's largest asset, has been officially recognized as being the 'cleanest' steelmaking city in Russia, according to data from Russia's Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet). Thanks to environmental protection measures implemented at the Lipetsk site, the Integrated Air Pollution Index (IAPI)* in the city of Lipetsk fell by a factor of more than 10 between 2000 and 2018.

* The IAPI indicator, which was developed and calculated by Roshydromet, is used by the Russian Ministry of Natural Resources and the Environment to conduct scientific assessments of air pollution in Russian cities.

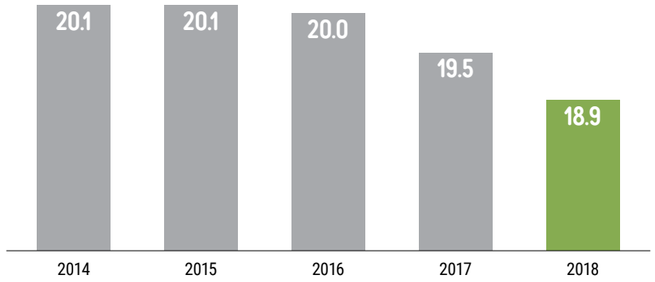
MAIN PROJECTS UNDERWAY AS PART OF ENVIRONMENTAL PROGRAMME 2022

SITE	MEASURE	STATUS	IMPACT
Lipetsk site	Installation of new environmental protection equipment to purify dust emissions in the sinter shop	✓	▸ 15-fold reduction in dust at the facility ▸ All captured dust reused in production ▸ Degree of purification matches that produced of the BAT
	Installation of 12 bag filters in the refractory shop	✓	▸ 16% reduction in dust emissions ▸ Residual concentration of dust following purification meets the highest standards for dedusting systems in modern steelmaking (fewer than 10 mg/nm³)
	Overhaul of the dedusting unit (ATU-24) in the refractory shop	→	▸ Over 90% reduction in dust emissions at the facility ▸ Performance of dedusting system rose by 20% to 240,000 m³/h
	Installation of electrostatic precipitators and high-performance bag filters conforming to modern standards in the sinter, blast furnace, and refractory shops	✓	▸ Repeated reuse of all captured dust as feedstock in production ▸ 6% reduction in gross dust emissions ▸ Concentrations reduced to within permissible levels at the enterprise's sanitary protection zone
Altai-Koks	Overhaul of the car dumper dedusting system at coal blending unit No. 1 by installing bag filters in accordance with the BAT	✓	▸ Return of captured coal dust to production ▸ Reduction of dust emissions at source by a factor of 2.3
NLMK DanSteel	Replacement of combustion system in the normalizing furnace	✓	▸ Eightfold reduction in NOx emissions, to 46 mg/m³

✓ – Completed → – In progress

In 2018 the total volume of air emissions fell by 2,200 tonnes, thanks to the implementation of atmospheric protection measures under the Environmental Programme. The volume of specific emissions fell by 0.6 kg/t.

SPECIFIC AIR EMISSIONS BY NLMK GROUP, 2014–2018, KG/T GRI 305-7



BUILDING THE MOST ENVIRONMENTALLY FRIENDLY STEEL SMELTING SHOP IN EUROPE

▸ In 2018 NLMK began work to refit exhaust ducts at its BOF facilities. The new high-capacity filters, which are built from special high-strength materials, are capable of capturing virtually all metal dust and graphite. This can then be fed into the system as a raw material in pig iron productioin. The new gas purification system is essential for preventing fugitive emissions, which are inevitable in steel production. Refitting the BOF facilities will help make the plant's smelting shop the most productive and environmentally friendly one in Europe.

VOLUME OF SIGNIFICANT AIR EMISSIONS BY NLMK GROUP BY SUBSTANCE TYPE, THOUSAND TONNES GRI 305-7

INDICATOR	2014	2015	2016	2017	2018
TOTAL	**324.6**	**324.2**	**331.7**	**333.9**	**331.7**
NOx emissions	**18.2**	**22.0**	**24.8**	**27.1**	**27.2**
per unit of production, kg/t	1.1	1.4	1.5	1.6	1.6
SO_2 emissions	**28.2**	**27.7**	**28.9**	**31.8**	**31.7**
per unit of production, kg/t	1.8	1.7	1.7	1.9	1.8
Particulate matter emissions	**25.5**	**25.4**	**25.2**	**25.7**	**24.4**
per unit of production, kg/t	1.6	1.6	1.5	1.5	1.4
CO emissions	**248.5**	**244.6**	**249.2**	**245.7**	**244.7**
per unit of production, kg/t	15.5	15.3	15.0	14.4	14.0
Volatile organic compounds	**2.2**	**2.5**	**2.6**	**2.6**	**2.7**
Hazard class-1 substances, tonnes	**2**	**2**	**1**	**1**	**1**

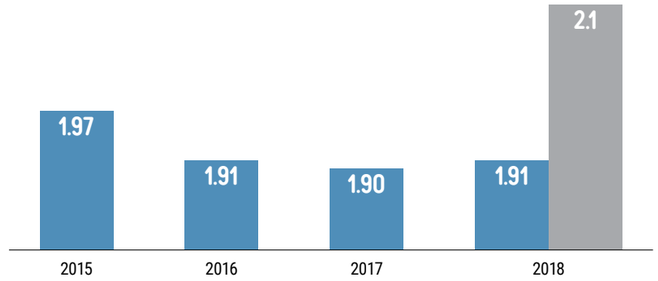
Greenhouse gas emissions

NLMK Group is aware of the potential consequences of climate change, and is committed to reducing greenhouse gas emissions by implementing measures to reduce the specific consumption of non-renewable fuels and to boost energy efficiency.

Although Russian law does not require the disclosure of information about greenhouse gas emissions, in 2018 NLMK took the decision to publish this information in its Annual report. The total volume of direct and indirect CO_2 emissions (Scope 1 and Scope 2) was 33.4 million CO_2 equivalent in 2018. GRI 305-1, 305-2

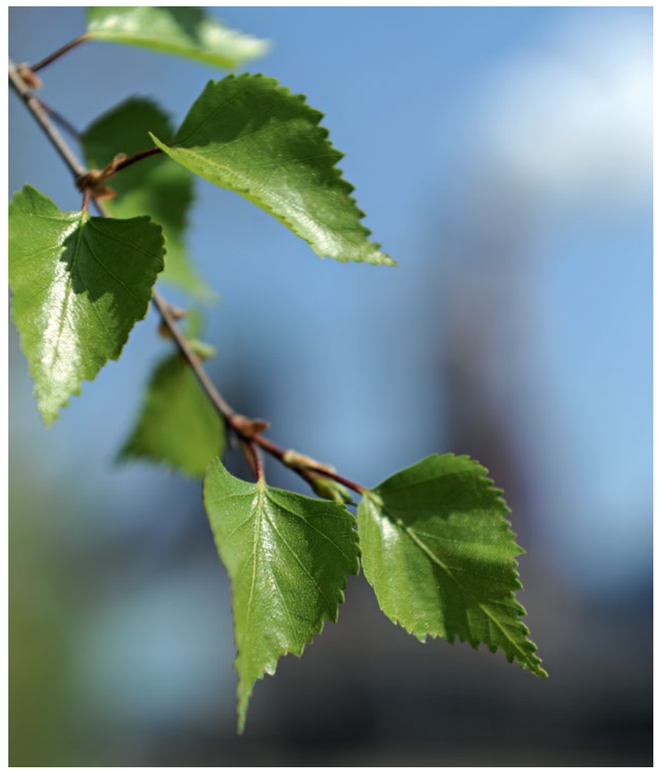
This figure, which is above the industry average, was achieved through projects to reduce our specific consumption of non-renewable fuels and other resources. Strategy 2022 includes plans to implement projects to develop in-house power generation within NLMK Group, for example by using by-product gases from steel production. This will allow NLMK Group to reduce indirect greenhouse gas emissions.

SPECIFIC EMISSIONS OF GREENHOUSE GASES BY NLMK GROUP, 2015-2018, T/T STEEL GRI 305-4



[1] Specific CO_2 emissions 2018 dynamics as compared with 2017 is driven by the increase in the share of pig iron production in the total production volumes

[2] Industry-average specific CO_2 emissions (direct and indirect) from Science Based Targets: https://sciencebasedtargets.org/sda-tool



Waste handling and efficient use of natural resources

Waste management

NLMK Group's waste-handling operations are orientated towards key modern steelmaking trends: minimizing waste generation and increasing the proportion of waste that is processed, reused, and safely disposed of. For example, a priority of the Environmental Programme 2022 is to increase waste utilization at NLMK Group to 96% (not including mining waste: overburden and beneficiation tailings).

NLMK Group utilizes some of the waste generated at its sites in the course of its own activities, and transfers some for reuse by specialist organizations that hold relevant licences.

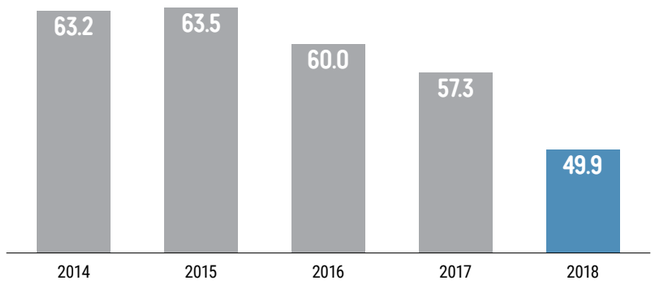
NLMK Group companies are reducing the volume of waste that they generate. For example, NLMK Lipetsk site includes a facility that processes wooden pallets. In 2018 the facility processed over 12,000 tonnes of wood waste, resulting in a reduction in the volume of wooden packing waste recycled with the involvement of external organizations, and reduced timber procurement for the production of chips. Over RUB 46 million was invested in the project.

Potential impacts on the environment are minimized through compliance with safe waste-handling standards and implementing corresponding measures. At NLMK Pennsylvania, for example, four hydrochloric acid reservoirs have been replaced and brought into use on the pickling line, with the aim of preventing hazardous substances from polluting soil.

The overall volume of waste generated in 2018 dropped by 13% (more than 7 million tonnes), due to the reduced generation of mining waste at Stoilensky. The volume of waste recycled rose by 43,000 tonnes, while the volume of waste discharged fell by 22,000 tonnes.

Around 97% of waste generated by NLMK Group falls into the hazard class 5 (non-hazardous). This waste category has virtually no impact on ecosystems and requires no special handling measures.

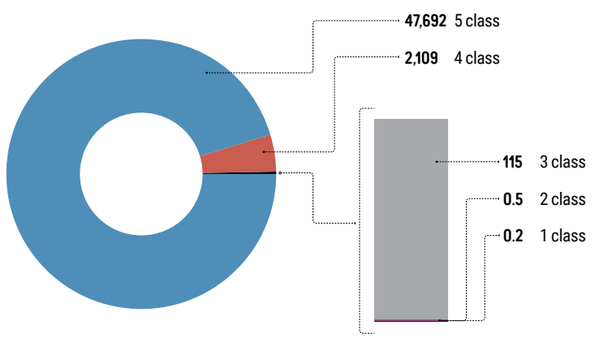
TOTAL WASTE GENERATED BY NLMK GROUP, 2014–2018, THOUSAND TONNES GRI 306-2



TOTAL SPECIFIC WASTE GENERATED BY NLMK GROUP, 2014–2018

INDICATOR	2014	2015	2016	2017	2018
Specific waste generation, t/t	**3.9**	**4.0**	**3.6**	**3.4**	**2.9**
Recycled (recycled and decontaminated) waste, '000 tonnes	**10,073**	**9,254**	**9,080**	**7,774**	**7,816**
including by NLMK companies, '000 tonnes	9,322	8,541	8,360	6,743	6,627
including by external organizations, '000 tonnes	751	713	720	1,031	1,189
Waste recycling not including mining waste, %	**94**	**96**	**94**	**87**	**89**
Discharged waste, '000 tonnes	**139**	**174**	**133**	**154**	**132**

WASTE GENERATED BY NLMK GROUP BY HAZARD CLASS, 2018, THOUSAND TONNES GRI 306-2



Production lifecycle

NLMK Group companies produce steel products that can be fully assimilated into the environment once they are no longer of use to consumers. In this regard ferrous metal products are a valuable raw material that can be reused in steelmaking.

All steel produced by NLMK Group companies can be recycled and reprocessed. Around 25% of steel produced is made using scrap ferrous metals; this makes the steel produced by NLMK Group companies part of a closed-cycle economy.

VTORCHERMET NLMK – A LEADER IN SCRAP FERROUS METAL REPROCESSING

▸ One NLMK Group company, Vtorchermet NLMK, is an industry leader in scrap metal processing technology. It collects and processes scrap ferrous metals, and supplies NLMK Ural, NLMK Kaluga, and NLMK Lipetsk with 85% of the high-quality scrap metal they need for steelmaking. The scrap metal that arrives at Vtorchermet NLMK receives a second life in the form of products that are in high demand across various industries: rebar, steel duct, brackets, wire, fixing products, and flat-rolled products. Processing scrap metal helps both rid the environment of scrap and significantly reduce consumption of natural resources and energy. Vtorchermet NLMK is a member of RUSLOM.COM, an organization with a mission and objectives that include safeguarding Russia's access to raw materials and environmental safety by returning recycled resources to the economy and creating a high-tech and efficient sector for handling scrap metal and industrial and consumer waste.

Biodiversity

NLMK Group conducts operations on both industrial lands and residential areas. The Company's activities have no direct significant impact on biodiversity. GRI 304-2

NLMK group production sites are not located on industrial sites that are leased; more specifically, they are not located on sites that are situated on environmentally protected land or on land with a high biodiversity value. GRI 304-1 NLMK Group activity does not pose any threat to animal and plant species registered on the IUCN Red List or in the Russian Red Book, or to species threatened with extinction. GRI 304-4

The Company regularly implements measures targeted at rehabilitating the land disturbed by the activity of its extractive companies (Stagdok, Dolomit). The treatment of deposit sites includes phased rehabilitation work to restore the landscape and its plant cover and to enable plants to grow again in the soil. NLMK Group allocates over RUB 400 million to these projects every year. GRI 304-3

REHABILITATION OF LAND AT STAGDOK

▸ In October Stagdok completed the return of over 22 hectares of rehabilitated land to Lipetsk Municipal Region. The Commission for the Acceptance of Rehabilitated Land signed a certificate confirming that Stagdok had fulfilled all applicable state requirements related to the rehabilitation of land disturbed by limestone extraction. Since 2012 Stagdok has restored the soil layer and planted more than 216,000 saplings on former extraction sites. Biological rehabilitation work was carried out on close to 110 hectares of land in 2012–2018.

RUB 6.3 MILLION ALLOCATED TO VOLUNTEER PROJECTS AS PART OF STEEL TREE INITIATIVE

▸ NLMK Group is committed to promoting a culture of environment awareness in conjunction with ensuring high environmental management standards in the regions where it operates. It aims to achieve this by training local residents in project management, and grants for this are made available by the Miloserdiye charitable fund. The grants are used to fund volunteering initiatives aimed at resolving current issues that local residents face. In 2018 NLMK began funding seven projects as part of the Steel Tree initiative, all proposed by residents from Lipetsk and the surrounding region.

The Steel Tree initiative was launched in 2017, and has enabled young residents of Lipetsk to implement 11 environmental projects with financial support from NLMK's Miloserdiye charitable fund. In 2018 the programme was rolled out to the residents of Zarinsk and Stary Oskol. Since the start of 2018, 42 ideas for creating a healthy urban environment and implementing social, environmental, and educational initiatives have been put forward to the competition commission, and the commission has approved the allocation of seven grants worth over RUB 2 million. The approved projects include the removal of rubbish from Studenovsky Quarry; the laying of trails on its land for use in mountain biking training sessions; the restoration of a spring in the village of Krutie Khutora in the Lipetsk Region; the creation of an arboretum in Aviators Park and a sensory wellbeing garden in Bykhanov Gardens; and organizing an environmental river patrol and clearing rubbish from coastal areas.

Plans for 2019 and the medium term

NLMK GROUP IS PLANNING TO IMPLEMENT SIGNIFICANT ENVIRONMENTAL PROTECTION INITIATIVES IN FUTURE REPORTING PERIODS UNDER ITS ENVIRONMENTAL PROGRAMME 2022:

Name of initiative	Projected environmental impact
1. Major overhaul of blast furnace No. 4, including the refitting the dedusting system and replacing hot-blast stoves	Reduction in gross air emissions by 6,000 tonnes annually
2. Major overhaul of blast furnace No. 6, including refitting the dedusting system and replacing hot-blast stoves	
3. Overhaul of BOFs No. 2 and 3 with off-gas ducts and fitting BOF shop No. 2 with systems for capturing and cleaning fugitive emissions	
4. Overhaul of the dedusting system on the cast-house floor of blast furnace No. 3	
5. Overhaul of dedusting systems to capture fugitive emissions in the mixer section of BOF shop No. 1	
6. Overhaul of dust and gas purification unit ATU-24 in the refractory shop	
7. Construction of a new facility for water-free cooling of all slag generated by BOF shop No. 1	
8. Technical refit of the slag granulation facility at blast furnace No. 6	

Name of initiative	Projected environmental impact
1. Construction of a section for the annual production of 700,000 tonnes of steelmaking briquettes	Integration of waste into the recycling process
2. Regeneration and preparation of investments in the metal casting shop	

Name of initiative	Projected environmental impact
1. Major overhaul (technical refit) of local treatment facilities	Compliance with permissible discharge standards following purification, and removal of specific substances from domestic wastewater from NLMK and the left-bank area of Lipetsk at local treatment facilities

Energy efficiency

Key figures 2018

591.1 PJ
total energy consumption in 2018 (-1.9% y/y)

Specific energy intensity of steel production at the Lipetsk site fell by
0.4%

Material topics

- Energy

Key events in 2018

- 60 MW turbine generator No. 5 was commissioned at the Lipetsk co-generation plant
- A number of initiatives were implemented to improve energy efficiency at the Group sites

United Nations Global Compact principles

Principle 7 Businesses should support a precautionary approach to environmental challenges
Principle 8 Businesses should undertake initiatives to promote greater environmental responsibility
Principle 9 Businesses should encourage the development and diffusion of environmentally friendly technologies

Global Sustainable Development Goals

Steelmaking is an energy-intensive industry. NLMK Group is continually seeking ways to make production more energy efficient. This includes identifying and applying integrated solutions to ensure a reliable supply of energy resources and reduce expenditure, and using energy sparingly in order to minimize environmental impact.

Our approach to managing energy efficiency

NLMK Group has developed and implements an energy policy that sets the following goals with respect to energy efficiency:

- Attaining a minimum, technologically, and economically sound level of specific energy intensity and production costs
- Leadership in the use of advanced energy saving technologies

NLMK Group's energy policy determines the principles, actions, and obligations of the Company's managers and employees with respect to attaining these goals.

Since 2014 the Company has also pursued a unified technology policy for managing the energy resources of NLMK Group's facilities in Russia.

The policy focuses on the most progressive technical solutions, equipment, and technologies for improving the reliability, efficiency, and safety of energy resource performance. The policy also sets out priorities and rules for applying the technical solutions discussed within it with respect to the utilization of energy facilities, the implementation of new construction programmes, and comprehensive technical refits and overhauls of energy assets belonging to NLMK Group companies, together with the innovative and promising development of these companies.

The Vice President and subordinate subdivisions work to frame the principles and strategic goals for improving the energy efficiency of production and to develop energy facilities, in addition to monitoring the attainment of these goals. Each year the directors of NLMK Group companies determine a list of initiatives for improving energy efficiency and the target figures for the fulfilment of plans to ensure the sound use of energy resources.

A key performance indicator for improving energy efficiency is the specific energy intensity of production (Gcal/tonne of products produced). The targets for key performance indicators are determined on the basis of statistical data, an analysis of the potential for process improvements, and the results of a comparative analysis containing similar statistics and breakdowns, both within and outside the Company.

Certification

The Company operates an 'umbrella' energy management system, as approved by certificate No. ENMS 598731, which encompasses 10 Group sites:

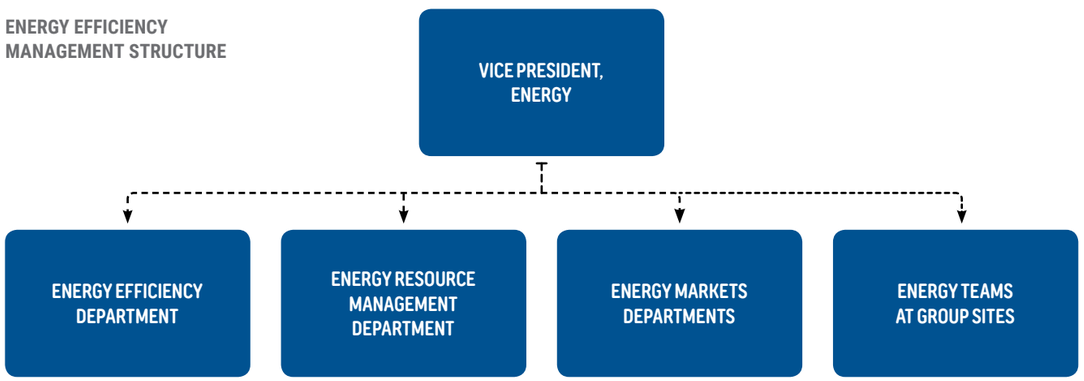
- NLMK Lipetsk
- VIZ-Steel
- Altai-Koks
- Dolomit
- NLMK Kaluga
- NLMK Metalware
- NLMK Ural
- Stagdok
- Stoilensky
- NLMK DanSteel.

All the companies are certified under international standard ISO 50001:2011.

Membership and participation in organizations

NLMK Group is a member of the Russian Association of Energy Consumers, a non-commercial partnership that aims to protect the interests of member companies on industry platforms and within federal bodies that regulate energy development.

ENERGY EFFICIENCY MANAGEMENT STRUCTURE

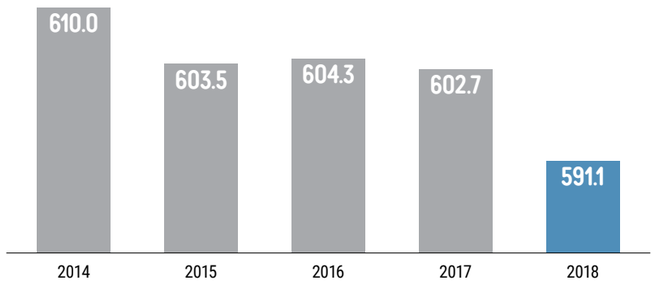


Energy resource consumption in 2018

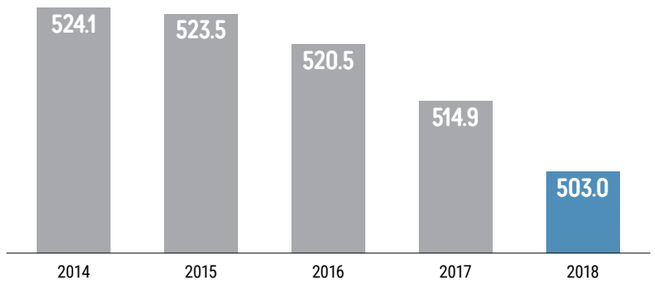
NLMK Group uses a variety of non-renewable energy resources in its production activities. Approximately 17% of all energy consumed comes from natural gas and more than 43% from coal.

In 2018 total energy consumption within the Company stood at 591.1 PJ, which represented a fall in consumption compared to 2017 (reduction by 11.6 PJ). This reduction was achieved thanks to the introduction of energy saving initiatives.

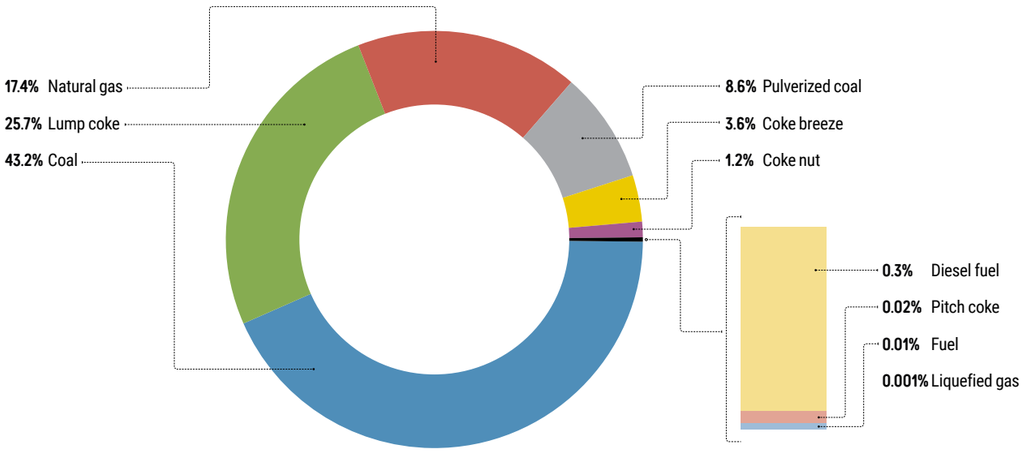
GROSS ENERGY CONSUMPTION BY NLMK GROUP, 2014–2018, PJ GRI 302-1



CONSUMPTION FROM NON-RENEWABLE SOURCES, NLMK GROUP, 2014–2018, PJ GRI 302-1



CONSUMPTION FROM NON-RENEWABLE SOURCES BY TYPE, NLMK GROUP, 2018, % GRI 302-1



CONSUMPTION FROM NON-RENEWABLE SOURCES BY TYPE, NLMK GROUP, 2014–2018, PJ GRI 302-1

FUEL TYPE	2014	2015	2016	2017	2018
Coal	238.64	240.85	237.48	234.77	217.49
Lump coke	147.43	138.83	138.37	134.51	129.06
Natural gas	103.44	102.81	104.13	91.73	87.28
Pulverized coal	10.60	15.55	18.10	28.40	43.30
Coke breeze	17.37	18.05	18.35	18.47	18.18
Coke nut	4.42	5.33	1.97	5.27	6.05
Diesel fuel	1.75	1.68	1.61	1.56	1.50
Pitch coke	0.18	0.18	0.20	0.13	0.09
Fuel oil	0.11	0.13	0.26	-	-
Petrol	0.10	0.09	0.08	0.08	0.06
Liquified gas	0.01	0.01	0.01	0.01	0.01
TOTAL	**524.05**	**523.51**	**520.54**	**514.93**	**503.02**

CONSUMPTION, GENERATION, AND SALES OF ELECTRICITY AND THERMAL ENERGY BY NLMK GROUP, 2014–2018, PJ GRI 302-1

INDICATOR	2014	2015	2016	2017	2018
Electricity and thermal energy obtained for consumption					
Total electricity consumption	82.6	77.1	80.7	84.8	84.9
Thermal energy consumption	3.3	2.9	3.1	3.0	3.1
TOTAL	**85.9**	**80.0**	**83.7**	**87.8**	**88.0**
In-house electricity and thermal energy generation					
Electricity	47.3	50.2	47.0	46.3	49.4
Thermal energy from steam	21.3	23.8	22.9	22.8	21.0
Thermal energy from hot water	8.6	8.0	8.2	7.5	7.7
TOTAL	**77.2**	**82.1**	**78.1**	**76.6**	**78.1**
Electricity and thermal energy sold to external consumers					
Electricity sold	7.5	7.1	6.3	7.1	6.1
Electricity transferred	5.3	5.2	5.2	5.1	4.9
Thermal energy sold	3.2	2.9	3.0	2.9	3.1
TOTAL	**16.0**	**15.3**	**14.5**	**15.1**	**14.1**

SPECIFIC ENERGY INTENSITY* AT NLMK LIPETSK, 2014–2018, GCAL/T GRI 302-3

INDICATOR	2014	2015	2016	2017	2018
Specific energy intensity	5.72	5.66	5.60	5.49	5.47

* Specific energy intensity = (energy consumption during steel production/extraction and processing of raw materials, J) / (steel production/extraction and processing of raw materials, t)
Types of energy resources used in calculation: Procurement: coking coal, pitch coke, lump coke, coke breeze, pulverized coal, natural gas, fuel oil, thermal energy from hot water, steam, electricity, oxygen (NLMK Kaluga), thermal energy from chemically purified water (VIZ-Steel).
Sale: coke breeze, nut coke, chemical products, blast furnace gas, steam, thermal energy as hot water, oxygen, nitrogen, compressed air, industrial water, hydrogen, and commercial iron.

Captive electricity generation

Reduced expenditure on energy is achieved through implementing respective optimization initiatives and by increasing the proportion of electricity generated in-house.

The maximum utilization of the available volume of recycled energy resources is one of the main challenges faced by NLMK Group; overcoming this challenge will make it possible to not only minimize expenditure, but also to reduce our environmental impacts by reducing greenhouse gas emissions.

NLMK Group's total installed generating capacity in the reporting period stood at 722 MW, including 522 MW at the Lipetsk site and 200 MW at Altai-Koks.

Electricity is generated at the Company's captive power plants which are mostly powered by recycled fuel gases from steel production.

Over half of electricity consumed at the Lipetsk site and 100% of electricity consumed at Altai-Koks is generated using NLMK Group's captive resources.

The use of recycled energy resources to generate electricity is another tool that can be used to boost energy efficiency and the eco-friendliness of production. The Lipetsk site in particular generates electricity using by-product gases from coke and blast furnace production processes as fuel.

CAPTIVE ENERGY GENERATION AT NLMK GROUP'S FACILITIES

CAPTIVE ELECTRICITY GENERATION AT NLMK COMPANIES

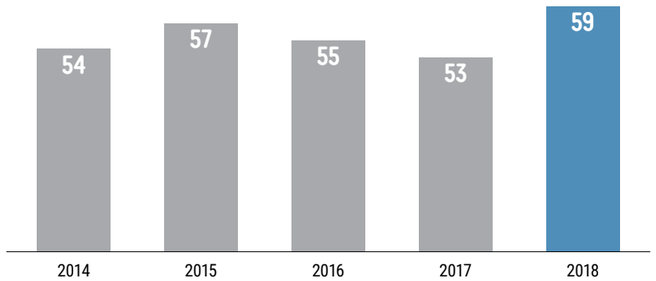
NLMK LIPETSK: 522 MW

- **Co-generation plant:** fuel – coke oven gas, blast furnace gas, natural gas
- **Recovery co-generation plant:** fuel – blast furnace gas, natural gas
- **Top pressure recovery turbine station:** no fuel is used; instead, electricity is generated from excess pressure caused by blast furnace gas

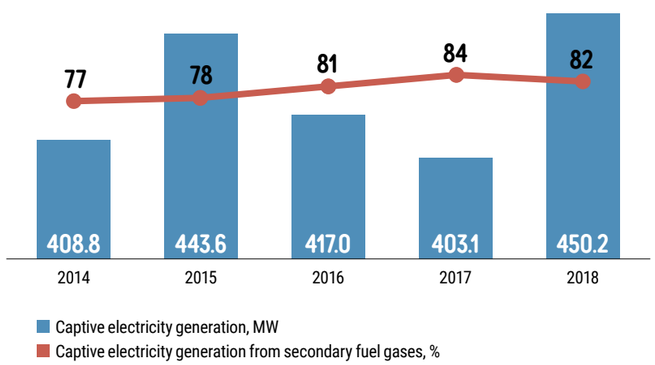
ALTAI-KOKS: 200 MW

- **Co-generation plant:** fuel – coke oven gas

SHARE OF CAPTIVE ELECTRICITY IN TOTAL ELECTRICITY CONSUMPTION AT NLMK LIPETSK, 2014–2018, %



CAPTIVE ELECTRICITY GENERATED AT NLMK LIPETSK, 2014–2018

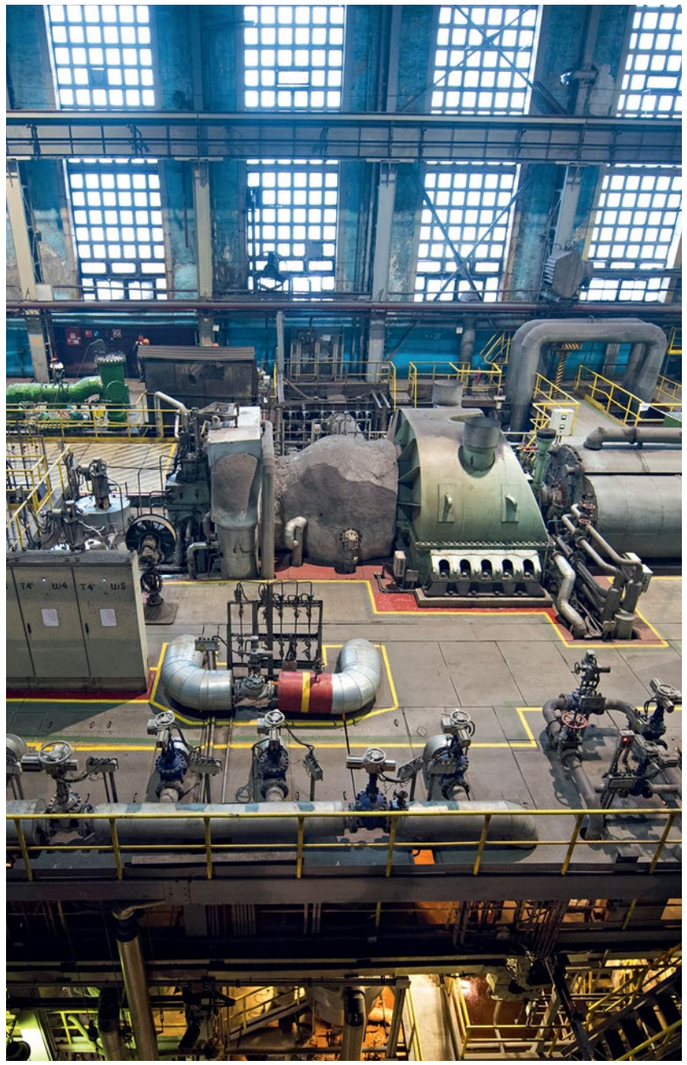


ENERGY INTENSITY REDUCTION AT VIZ-STEEL

During 2018, VIZ-Steel was able to reduce the specific energy intensity of its grain-oriented steel production to 7.28 Gcal/t: a 3.8% reduction on the same period in 2017, which cut its energy costs by RUB 4.1 million.

Initiatives taken by VIZ-Steel as part of a resource-saving programme include optimizing the performance of the water supply system to the steam reforming line of its gas production unit, refurbishing the steam supply system to thermal units at its cold rolling shop, and replacing pump equipment used in the purifying of industrial wastewater. Thanks to adopting an integrated approach to overcoming the challenges of boosting energy efficiency over the past five years (2014-2018), the specific energy intensity of production at VIZ-Steel has fallen by 9%.

NLMK GROUP BOOSTS CAPTIVE ENERGY GENERATION TO 59%



► NLMK Group put into operation the new 60 MW turbine generator No. 5 at the Lipetsk site's co-generation plant. The commissioning of the turbine generator increased the reliability of the site's energy supply, reduced the cost of energy by 3%, and increased the share of captive energy generation from 53% in 2017 to a record 59% in 2018 of total electricity consumption. The new turbine generator replaced a unit with a similar capacity, lauched in 1958, which has reached the end of its service life. The outgoing turbine generator was equipped with a hydrogen cooling system, whereas the replacement is cooled using cold air, which makes it safer to operate and more reliable. While the overhaul was underway, an additional quantity of energy was purchased in order to meet the needs of the Lipetsk site. NLMK Engineering, one of the leading design institutes in the Russian steel sector, was the general designer of the project. The total investment in the project exceeded RUB 1.8 billion.

Implementing energy saving measures

With the goal of boosting energy efficiency, NLMK Group has performed a range of initiatives over the reporting period, which resulted in the improved management of energy resource consumption and energy costs control at each stage of production processes and initiatives.

For example, measures were implemented in 2018 to upgrade and adjust the performance of boilers in co-generation plants and the recovery co-generation plant at the Lipetsk site, thereby allowing additional volumes of blast furnace gas to be reused. Initiatives to optimize the loading and configuration of heat supply networks at the Lipetsk site and electricity supply systems were implemented at both Stoilensky and the Lipetsk site.

In order to reduce thermal energy loss during transportation via shut-off valve insulation, a plan to install thermally insulated covers on shut-off valves was developed and implemented in pilot mode at NLMK Kaluga and VIZ-Steel.

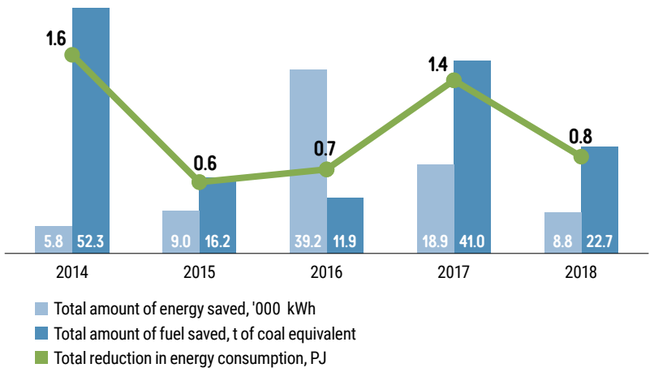
A project was also developed within NLMK Group to replace pumping equipment with more energy efficient alternatives. As part of this project, measures to install new more energy efficient pumping equipment and to optimize the feeding of existing pumping equipment have been carried out at the Lipetsk site, NLMK Ural, and Altai-Koks co-generation plant.

In February 2018 the new turbine generator No. 5 was commissioned at the Lipetsk site's co-generation plant. The turbine generator was built to replace obsolete equipment that had reached the end of its service life.

OPTIMIZATION INITIATIVES UNDERTAKEN BY NLMK GROUP IN 2018

KEY AREAS AND INITIATIVES	Outcomes 2018 (full-year effect)
Increased efficiency of fuel gas use in electricity generation: ► Lipetsk co-generation plant. Increased surface area of the hot stove of boiler No. 1, upgrading boiler units No. 2 and 3, with changes to the air delivery system for combustion ► Lipetsk recovery co-generation plant. Increased surface area of the water economizer for boiler No. 3	Reduced natural gas consumption
Supply and configuration optimization for energy resource transport networks to companies: ► Lipetsk thermal power shop. Installation of condensate traps to remove condensate from lower portions of steam supply pipelines ► Lipetsk, oxygen shop, blast furnace No. 1. Adjusting the hydraulic performance of heat supply systems of oxygen shop 1 buildings, using ZuluThermo ► Lipetsk thermal power shop. Reducing the length of the heat pipeline to water supply shop sludge pumps. Decommissioning the back-up heat pipeline along the ferroalloy heat pipeline ► VIZ-Steel. Modification of heat supply system to cold rolling shop ► Lipetsk, Stoilensky. Decommissioning of underused transformer substations	Reduction in thermal energy used as steam and hot water
Optimization of equipment performance for the production of process gases: ► Lipetsk, oxygen shop. Optimization of rectification in ASU No. 9, increase of argon production by ASU Nos. 5 and 9, increase in oxygen production efficiency of ASU Nos. 4 and 5	Reduction in electricity consumption and increase in liquid argon sales
Reduction in thermal energy losses during transportation through shut-off valve insulation: ► VIZ-Steel. Installation of insulation covers on steam line valves	Reduction in thermal energy consumption
Deployment of energy efficient pump and compressor equipment: ► Lipetsk. Replacement of drainage pumps with more energy efficient alternatives; modifying pump unit performance ► NLMK Ural, energy shop, light wire station. Replacement of pumps	Reduction in electricity consumption

REDUCTION IN ENERGY CONSUMPTION AS A RESULT OF ENERGY SAVING INITIATIVES (PROGRAMMES) AT NLMK LIPETSK, 2014–2018 GRI 302-4



STAGDOK INCREASES ENERGY SUPPLY RELIABILITY

► Work was completed at Stagdok on a 6 kV double overhead power transmission line that will provide electricity to process facilities in the open-pit mine as well as to the crushing and beneficiation plant. The new addition is modern, safe, and has optimal capacity. A factory assembled transformer substation and equipment were acquired to enable drilling, extraction, and stripping work to be performed continuously at the mine. This also improved the reliability of the electricity supply and reduced electricity transmission losses.

Plans for 2019 and the medium term

The key initiatives that NLMK Group plans to carry out in 2019 and in the medium term to tackle challenges related to increasing energy efficiency include the following:

- Increasing the utilization efficiency of fuel gases in electricity generation
- Optimizing the supply and configuration of energy resource transportation networks at companies
- Optimizing the performance of process gases producing equipment
- Reducing thermal energy losses during transportation through shut-off valve insulation
- Commissioning energy efficient pump and compressor equipment
- Reaching 64% share of captive electricity in total electricity consumption at NLMK Lipetsk

At NLMK Ural, the construction of a 4 MW energy complex is planned in the town of Nizhniye Sergi, using co-generation facilities and a peak water-heating boiler. This will eventually enable purchased energy to be replaced with energy that is generated in-house. In the town of Beryozovsky, the construction is set to begin on a 6.5 MW peak water-heating boiler with a co-generation plant, to replace an ineffective existing boiler.

The work to refit the recovery co-generation plant with a turbo-blower, which will supply blast furnace No.7, is nearing its completion; the existing electrical blower is put on stand-by.

OUTSOURCING

▸ NLMK Group and the German company Linde Group have signed an agreement to build a new air separation unit (ASU), which is capable of producing 72,000 m³ of gaseous oxygen per hour. This will increase process gas production capacity by 20%. The gases will then be used in all areas of steel production. The EUR 100 million project is being financed using funds from Linde Group. The new outsourced facility will provide a reliable supply of oxygen, nitrogen, argon, and noble gases, together with a projected increase in steel production volumes. The new facility will lower costs and boost the efficiency of production processes. The new equipment is not only 50% more productive than the older air separation units, but it also enables gases to be obtained at the required pressure without the additional use of separate compressor equipment. The new facility is planned to be commissioned in the fourth quarter of 2021.

About NLMK | 2018

▸ This brochure gives an overview of the structure, business model, strategy and performance of the Group over the past five years.

The world is changing rapidly. Today, NLMK Group together with other global companies determines the future of steelmaking. In many aspects, 2018 was a year of achievements for NLMK Group.

Grigory Fedorishin
President of NLMK Group

Governance | 2018

▸ This brochure aims to showcase NLMK Group's corporate governance and risk management practices.

In its activities, NLMK Group adheres to best international practices and the highest standards of corporate governance.

Stanislav Shekshnia
Independent director,
member of NLMK Group's Board of Directors

Our team | 2018

▸ Detailed information on interaction with NLMK Group's stakeholders, talent development, occupational safety policy, and financial contribution to the development of local communities, and much more.

We are proud of what we have achieved and fully recognize that our achievements were made possible thanks to the contribution of our entire team, united by the common goal of leadership for NLMK Group.

Grigory Fedorishin
President of NLMK Group

Environment | 2018

▸ In this brochure we talk about how advanced technologies, efficient processes and environmentally friendly approaches ensure our leadership as an environmentally-oriented company.

Our firm belief is that, if we want to grow sustainably and if we look at the same sustainability of the company, competitive shareholder returns simply are not enough. In 2018 we disclosed our CO_2 emissions data.

Marjan Oudeman
Independent director,
member of NLMK Group's Board of Directors

nlmk.com

▸ We have developed a dedicated section on the Company website at www.nlmk.com to enable investors to review environmental and social questions, as well as corporate governance (Environmental, Social, Governance) when they are considering investment.