MESSAGE FROM THE PRESIDENT
OF PJSC LUKOIL

Dear readers!

Our Company continues to evolve in accordance with the UN Sustainable Development Goals, which we do not see as being distant prospects, but they rather form the basis of our daily work.

The 2019 reporting year was successful for the Company in terms of operational and financial results. And no less significant was that we also took specific steps to overhaul our system for managing climate change issues. The Board of Directors of PJSC LUKOIL made important decisions to facilitate mitigation of climate change, including setting quantitative targets to reduce greenhouse gas emissions and conducting inventories of sources of direct and indirect emissions. Assessment of the impact of climate change on production facilities and infrastructure in the Arctic and permafrost zones is planned.

The sustainable development management system changed significantly in the reporting year, with the leading role for enhancement of LUKOIL Group activities in this area given to the Strategy, Investment and Sustainability Committee of the Board of Directors of PJSC LUKOIL. All issues on sustainability reviewed at the Board of Directors undergo preliminary preparation and discussion in that Committee.

Last year’s results demonstrated a 3.3% decrease in direct GHG emissions and almost a twofold decrease in methane emissions in Russia compared to the baseline of 2016, when the first target for reducing greenhouse gas emissions for Russian entities was set. Importantly, we managed to achieve this goal while at the same time increasing hydrocarbon production and refining volumes. The Company also implemented measures to reduce the impact of climate change in its foreign entities. For example, in 2019 the largest LUKOIL gas projects in Uzbekistan saw a drop in greenhouse gas emissions of 10.9% compared to 2018.

These results were achieved due to investments in the modernization and construction of production facilities and infrastructure, as well as the implementation of targeted corporate programs. Consequently, the efficient use of associated petroleum gas (APG) reached 97.6% across all LUKOIL Group production entities, which is close to the technological maximum. As a result of modernization projects and energy efficiency measures, the Energy Intensity Index of our refineries is steadily improving. Oil and gas production entities are implementing a program for transitioning to energy efficient pumping equipment. Hence, energy consumption for production needs is being reduced annually.

We participate in global industry-specific initiatives aimed at mitigating the impact of oil and gas companies on the climate. Since 2018 LUKOIL has participated in the “Zero Routine Flaring by 2030” World Bank initiative, and currently we are implementing two infrastructure building projects at our fields for APG collection and utilization.
We continue to enhance production safety standards in all the countries where LUKOIL operates. This covers the occupational safety of our employees and contractors, improving the reliability of technological systems and equipment, and environmental protection. In 2019 we continued preparation for transitioning to the new international standard ISO 45001:2018, which expanded the requirements for elaborating safety management systems. We are also stepping up work with contractors in this area.

All LUKOIL Group entities continually analyze occupational safety indicators, and make maximum efforts to strengthen measures aimed at preventing injuries. Also, state-of-the-art technologies are being introduced to boost the level of industrial safety.

The decrease in basic injury rates among LUKOIL employees and among our contractors in the last five years demonstrates the effectiveness of our efforts.

Another achievement of the Company has been a continuous reduction in oil and petroleum product spills in Russia in the past three years - and in 2019 this figure fell by half compared to the previous year.

Furthermore, as a result of the implementation of the Environmental Safety Program we reduced pollutant emissions, ensured the disposal of all waste generated, and reduced the amount of waste accumulated in entities prior to their joining LUKOIL Group. The Company is expanding its participation in biodiversity conservation projects: together with the Ministry of Natural Resources of the Russian Federation and the WWF-Russia Environmental Fund, we have launched a joint saiga antelope conservation project in Southern Russia.

We are increasing the scope of education programs for our employees through the use of modern distance-learning tools, which have become especially important during the coronavirus pandemic. In 2019 LUKOIL employees spent about two million hours using distance training in corporate programs.

We continue long-term programs to support the territories where we operate and the indigenous minorities of the North. The most successful programs, such as the Social and Cultural Projects Competition, include not only Russia but also the foreign countries where LUKOIL has a presence.

Our 10th Sustainability Report is being released at a time when the global community is taking its first steps to recover from the COVID-19 virus pandemic. At LUKOIL, we took prompt measures to protect the health of employees, while our plants and filling stations continued working to support the economy of regions and countries where we operate. The pandemic has proved how important it is to address a wide range of global problems, including issues relating to sustainable development, and thereby to increase society’s “immunity” to all challenges that may arise.

Vagit Alekperov
President, Chairman of the Management Committee of PJSC LUKOIL
During the preparation of this Report in March 2020, the COVID-19 pandemic was already beginning to spread globally affecting many countries, including Russia.

Shortly after the first notifications regarding the growing threat of large-scale infection, LUKOIL took measures to protect the health of its employees by preventing further contagion. For immediate response and coordination, PJSC LUKOIL and all Group entities created command centers which were put in charge of daily monitoring and situation awareness.

From the very start of the pandemic, enhanced sanitary protection measures were implemented across offices and enterprises. These included frequent cleaning and anti-bacterial ultraviolet light treatment of premises, as well as disinfection of work spaces. Employees were provided with masks; antiseptic dispensers were installed in premises; and ongoing monitoring of body temperature and the state of employees’ health were introduced.

We canceled all business trips to foreign countries and minimized movements of our employees across Russia’s regions. Production companies in Russia, Uzbekistan and Iraq extended the term of rotation shifts up to three months (a portion of specialists involved in the West Qurna-2 project had returned home before the active stage of the pandemic began). At distant production facilities, the Company arranged for the transportation of employees to local healthcare centers when required.

Because of the ongoing nature of their operations, all of the Company’s plants continued functioning. For those who remained at their workplaces, conditions to secure physical distancing to the maximum extent possible were created; the number of production personnel working in shifts was reduced; and schedules of office-wide on-call duty were introduced. To protect fuel station operators, protective shields were installed at all sites.

Over 20 thousand employees began working from home. For many of them, it was a good opportunity to apply the wide variety of corporate digital tools and services in practice. To facilitate the transition and adaptation to the new conditions, the AR LUKOIL mobile application was developed and integrated on a tight deadline to raise the awareness of the tools available and to train employees both in Russia and abroad. In April alone, 14 webinars devoted to methods of arranging work from home, time management, psychological resilience during the lockdown period and other topics were held, and employees experiencing unusual stress were given the opportunity to obtain the advice of psychologists remotely.

To unite and consolidate all employees, a special “MYVMESTE” (“We are in this together”) channel was created, and virtual hobby clubs were launched. Several corporate activities have now moved to the virtual space (such as the competition for young professionals). For families with children, we tried to assist with one of the most difficult issues during the lockdown period – how to keep children occupied. Jointly with the Higher School of Economics, we elaborated an online project “HSE for Kids” children’s camp which includes educational, entertainment and sports activities.

We also assisted countries and Russia’s regions where our entities operate. This support program was deployed in 22 constituent entities of the Russian Federation and in 12 foreign countries.

Protective equipment and disinfection means were purchased for healthcare facilities, and fuel was provided for medical transport at no cost in the Astrakhan, Volgograd, Kirov,
In the Perm Territory, LUKOIL-PERM arranged for 3 meals per day free-of-charge to be delivered to the workplaces of the medical staff of the Perm Territorial Clinical Infectious Hospital. Over 400 sets of protective equipment and portable radio sets to facilitate communication between specialists of the infectious department and those of other departments were handed over to medical professionals. Fuel was provided at no cost to volunteer organizations and needy multi-member families.

In foreign countries (Azerbaijan, Bulgaria, Iraq, Moldova, Mexico, Romania, Serbia, Turkey, Croatia and Uzbekistan), the Company transferred much needed equipment, protective suits and disinfectants to local healthcare facilities and provided fuel free-of-charge to medical teams. At the Company’s gas stations, medical professionals were served coffee free of charge. Support was also rendered to medical scientific institutes to assist in research aimed at discovering ways to combat the novel virus.

In Italy, we arranged to send supplies of specialized equipment to intensive care units at local hospitals. In the United Arab Emirates (UAE) LUKOIL paid for the accommodations of Russians who were unable to return home because air travel was suspended.

We are confident that the experience of overcoming the pandemic will help strengthen the Company’s response to such events in the future. Safeguarding people’s health and making it possible to restore a safe work environment at our production sites are LUKOIL’s top priorities.

The above measures do not represent by any means an exhaustive list of measures actually taken by LUKOIL entities, our charity fund and President of PJSC LUKOIL V.Yu. Alekperov.

We will continue providing help as required to countries and regions where we operate, thus further consolidating the ties between LUKOIL and the local communities and combining our efforts. More detailed information will be presented in future Reports.

In the Perm Territory, LUKOIL-PERM arranged for 3 meals per day free-of-charge to be delivered to the workplaces of the medical staff of the Perm Territorial Clinical Infectious Hospital. Over 400 sets of protective equipment and portable radio sets to facilitate communication between specialists of the infectious department and those of other departments were handed over to medical professionals. Fuel was provided at no cost to volunteer organizations and needy multi-member families.

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**EXPLORATION AND PRODUCTION**

**Exploration**

LUKOIL is a leader by proved liquid hydrocarbon reserves and by proved reserves to production ratio. The majority of LUKOIL reserves are of conventional type.

- **14 COUNTRIES OF THE WORLD**

**Development and production**

We develop reserves located, inter alia, in major oil and gas provinces in Russia, Uzbekistan and Iraq, producing liquid hydrocarbons (oil and gas condensate), natural and associated petroleum gas.

- Climate zones: from subarctic to equatorial
- Leadership in development of hard-to-recover reserves in Russia

- **76% share of oil in proved reserves**
- **24% share of oil**

**Offshore projects (0.3 to 3,000 m) and onshore projects**

- **Around 17% share of international projects production in total hydrocarbon production**

**MARKETING AND DISTRIBUTION**

LUKOIL is a major crude oil and marketable gas trader and a supplier of premium quality fuels and lubricants.

- **INTERNATIONAL TRADING**: wholesale marketing of our crude oil and petroleum products, trading third-party hydrocarbons
- **LUBRICANTS PRODUCTION AND MARKETING**: 35 production facilities, over 800 types of lubricants
- **MARINE AND RIVER BUNKERING**
- **AIRCRAFT REFUELING**

- **19 COUNTRIES OF THE WORLD**

- **>100 COUNTRIES OF THE WORLD**

**Retail sales**: fuel stations network
LUKOIL is a global vertically integrated company accounting for around 2% of global oil production and around 1% of proved hydrocarbon reserves.

**REFINING**

Our refineries product mix is used as fuel for various means of transport, as well as feedstock for other industries.

- **Oil refining**
  - 4 oil refineries in Russia and 4 - in Europe.
  - Products: motor fuel, lubricants and bitumen, bunker and jet fuel

- **Gas processing**
  - 4 gas processing plants and 2 processing facilities at other plants in Russia.
  - Liquid hydrocarbon and marketable gas

- **Petrochemicals**
  - 2 petrochemical plants in Russia and 2 production facilities at European oil refineries.
  - Pyrolysis and organic synthesis products, fuel fractions and polymeric materials

1. LUKOIL owns a 45% share in the Dutch refinery

**POWER GENERATION**

The power generation sector is represented by a complete chain from generation to transmission and sale of thermal and electric energy to external consumers.

- **Electric power generation**
  - 71% commercial generation

- **Thermal power plants and boiler houses in the south of Russia, 4 hydroelectric power plants, solar and wind power generation stations**

- **29% supporting power generation**

- **6% RES share in total commercial power generation**
GEOGRAPHY
OF PRESENCE

WE OPERATE

in over 30 countries of the world
on 4 continents

In Russia, we work in over 60 Russian entities. Extensive experience of working in a multinational environment is our competitive advantage.

OFFSHORE PROJECTS

• ‘ZERO DISCHARGE’ PRINCIPLE
• SATELLITE MONITORING OF MARINE AND COASTAL ECOSYSTEMS

REGULATION ON CLIMATE

• GHG EMISSIONS REDUCTION PROJECTS
• CDP PROJECT REPORTING

RENEWABLE ENERGY

• HPP MODERNIZATION
• PROMOTION OF HIGHER ENGINEERING EDUCATION IN THE AREA OF RENEWABLE ENERGY SOURCES

1 Of the headcount as at December 31, 2019
THE ARCTIC

- Applying the best available technologies, pit-free drilling
- Construction of pile-supported pipelines over permafrost terrain
- Performance standards according to Konkraft report recommendations


INDIGENOUS PEOPLES

- The Khanty, Mansi, Nenets, Selkup, Dolgan, Nganasan people
- Economic agreements with indigenous people
- Historical and cultural area surveys

ARID REGIONS

- Use of water-efficient technologies
- Supplies of clean potable water to schools, orphanages, health care centers
- Modernization of water supply infrastructure

RUSSIA

1. Austria
2. Azerbaijan
3. Belarus
4. Belgium
5. Bulgaria
6. Ghana
7. Georgia
8. Egypt
9. Iraq
10. Spain
11. Italy
12. Kazakhstan
13. Cameroon
14. Luxembourg
15. Macedonia
16. Mexico
17. Moldova
18. Nigeria
19. Netherlands
20. Norway
21. UAE
22. The Republic of the Congo
23. Romania
24. Serbia
25. The USA
26. Turkey
27. Uzbekistan
28. Finland
29. Croatia
30. Montenegro

- Exploration
- Oil production
- Oil refining
- Petrochemicals
- Power generation
- Gas production
- Gas processing
- Distribution
- Throughput
- Aircraft refueling
- Lubricants

THE KRASTNOYARSK TERRITORY

THE BLACK SEA

THE BARENTS SEA

THE SEA OF AZOV

THE KASPIAN SEA

THE ENERGY OF WATER AND THE SUN

- Applying the best available technologies, pit-free drilling
- Construction of pile-supported pipelines over permafrost terrain
- Performance standards according to Konkraft report recommendations

- Use of water-efficient technologies
- Supplies of clean potable water to schools, orphanages, health care centers
- Modernization of water supply infrastructure

- The Khanty, Mansi, Nenets, Selkup, Dolgan, Nganasan people
- Economic agreements with indigenous people
- Historical and cultural area surveys

- The USA
- Turkey
- Azerbaijan
- Russia
- Austria
- Belgium
- Bulgaria
- Ghana
- Georgia
- Egypt
- Iraq
- Spain
- Italy
- Kazakhstan
- Cameroon
- Luxembourg
- Macedonia
- Mexico
- Moldova
- Nigeria
- Netherlands
- Norway
- UAE
- The Republic of the Congo
- Romania
- Serbia
- The USA
- Turkey
- Uzbekistan
- Finland
- Croatia
- Montenegro

- Exploration
- Oil production
- Oil refining
- Petrochemicals
- Power generation
- Gas production
- Gas processing
- Distribution
- Throughput
- Aircraft refueling
- Lubricants
SUSTAINABILITY STRATEGY
OF LUKOIL GROUP

Our absolute priorities at all levels of the value chain are issues of industrial, environmental, social, as well as the personal safety of employees of LUKOIL Group entities and improvement of the safety culture in the supply chain.

LUKOIL GROUP’S STRATEGIC GOALS

In 2017, the Board of Directors of PJSC LUKOIL determined four strategic goals of LUKOIL Group in the area of sustainable development that can be aligned with 11 UN Sustainable Development Goals and 15 targets.

We implement many programs and annually disclose their results in public reports. The 2019 results demonstrate that the Company is evolving thanks to continuous improvement of its sustainability performance.

1. **INDUSTRIAL AND ENVIRONMENTAL SAFETY, RELIABILITY AND EFFICIENCY OF PROCESSES**

   *We are committed* to improving industrial safety, reducing on-the-job injury rates, ensuring accident-free operation of our production facilities, and continuously reducing our environmental impacts.

2. **COMPETITIVENESS**

   *We are focused* on boosting our overall operational performance and achieving more rational use of resources (natural, human, production, and financial).

3. **SOCIAL RESPONSIBILITY, A WORTHY CONTRIBUTION TO SOCIAL DEVELOPMENT**

   *We take a very responsible attitude* towards our stakeholders and always take their needs into account. We pursue a responsible social policy towards our employees and make a significant contribution to improving living standards in the regions where we operate.

4. **RETURN ON EQUITY, RETURN ON INVESTMENT, AND CONTINUOUS CREATION OF SHAREHOLDER VALUE**

   *We follow* a flexible reinvestment policy, work constantly to improve our performance and foster technological development. Thanks to successful implementation of our strategy, we maintain our competitive advantages, create shareholder value, and boost the Company’s investment appeal.

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1. Indicators dynamics is assessed in relation to 2018, unless otherwise indicated. Comparison with indicators for a longer period is caused by specific indicators.
2. The indicator relates to the processing of raw materials by LUKOIL Group entities at its own refineries (excluding mini-refineries).
3. Starting from 2014, the list of organizations covered by the study has changed while the scope of the study has remained unchanged.
Our approach to managing sustainability is based on alignment of the Company’s interests and plans with the United Nations sustainable development principles, universal values, global trends, as well as national and regional development priorities.

### KPIs

| The efficient use of APG reached<sup>1</sup> 97.6% throughout LUKOIL Group |
| The lost time accident frequency rate (LTAFR) amounted to 0.19 |
| Refinery yield<sup>2</sup> – 89.4% |
| As compared to 2014<sup>3</sup>, the EI index (Solomon) decreased to 96.5% |
| The energy intensity of refining one tonne of basic raw material at petrochemical plants amounted to 270 kWh/t |
| Specific revenue (labor productivity) amounted to RUB 77 million/person |
| The free cash flow was RUB 702 billion, up 26% on 2018. |

### UNCTAD INDICATORS

| The lost time injury frequency rate (LTIFR) stood at 0.13 |
| Russian entities cut their air pollutant emissions by 7.2% |
| As compared to 2016 (the base year), methane emissions decreased by 46% and GHG emissions dropped 3.3% across Russian Entities |
| The share of electric power generated from renewable sources in 2017–2019 averaged 6% |
| The share of LUKOIL Group employees covered by collective agreements equaled 88.9% |
| Share of young employees in the total LUKOIL Group employee headcount was 37% |
| The amount of training reached over 258 thousand person-courses |
| External social support contributions in LUKOIL Group were RUB 9 billion |
| The revenue of LUKOIL Group stood at RUB 7,841 billion |
| The dividends paid on shares amounted to RUB 180.7 billion, a rise of 14.1% on 2018 |

### INDICATORS UNDER OTHER REPORTING SYSTEMS

| • Further increase in the APG use |
| • Further implementation of industrial and environmental safety programs |
| • Development of cooperation with contractors in the area of occupational health and safety |
| • As compared to 2016, the EI index (Solomon) decreased to 96.5% |
| • Development of further long-term goals to reduce GHG emissions; preparing the inventory of GHG emissions |
| • Further implementation of the energy conservation program |
| • Development of further implementation of social and economic development programs in regions |
| • Implementation of programs to improve operational efficiency, digitalization and investment programs |
| • Formation of key management personnel |
| • Further improvement in the efficiency of processing raw materials and modernization of the product mix |

### PLANS

| • Implementation of programs to improve operational efficiency, digitalization and investment programs |
| • Improvement of corporate governance |

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<sup>1</sup> A service provided to an employee under social programs is the provision of the relevant service at the employee's request or the provision of an amount of money to pay for the service or compensate for its cost.

<sup>2</sup> The indicator is calculated using the number of senior managers.
**MATERIAL TOPICS AND ISSUES OF THE REPORT**

Based on the results of a comprehensive analysis, six topics were identified as material for public reporting purposes:

1. Sustainable development management, ethics and human rights;
2. Climate change;
3. Safety;
4. Environmental protection;
5. Responsible social policy (human resources management);

Information on the procedure for determining material topics is given in Appendix 2.

For more details, see p. 158

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**KEY INQUIRIES RECEIVED FROM STAKEHOLDERS IN 2019**

Indigenous minorities of the North
The quality of products and services
Programs for regions, Social and Cultural Projects Competition
Leadership philosophy
Training
Remuneration and bonuses
Working environment, collective agreements
Emissions and Waste
Biodiversity and Ecosystems
Water
Environmental Safety
Digitalization, cybersecurity
Workplace safety
Industrial Safety and Oil Spills
GHG emissions, reduction of emissions
Climate Strategy and Reporting
Stakeholder Engagement
Human Rights
Ethics, corruption
Corporate governance

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**INITIATIVES**

International projects, programs and initiatives LUKOIL Group / PJSC LUKOIL participates in

European Business Network for Corporate Social Responsibility

«Zero Routine Flaring by 2030» Initiative of the World Bank and UN
KEY GROUPS OF STAKEHOLDERS

1. Clients
2. Suppliers and Contractors
3. Employees and trade unions
4. Shareholders and investors
5. State legislative and executive authorities
6. Society: local authorities, media, state, municipal, public organizations, environmental organizations and the public, residents of the regions where LUKOIL operates, expert and scientific communities, international initiatives and industry associations, indigenous minorities of the North


The initiative “Business and Biodiversity” within the framework of the federal project of Russia “Conservation of Biological Diversity and Development of Ecotourism”.

## OUR CONTRIBUTION

### TO THE UN SUSTAINABLE DEVELOPMENT GOALS IN 2019

#### TOTAL INVESTMENTS IN ACHIEVING THE UN SUSTAINABLE DEVELOPMENT GOALS IN 2019

<table>
<thead>
<tr>
<th>Goal</th>
<th>Expenses</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Quality Education</td>
<td>1,172 RUB million</td>
</tr>
<tr>
<td>5</td>
<td>Gender Equality</td>
<td>1,172 RUB million</td>
</tr>
<tr>
<td>6</td>
<td>Clean Water and Sanitation</td>
<td>2,611 RUB million</td>
</tr>
<tr>
<td>7</td>
<td>Affordable and Clean Energy</td>
<td>4,973 RUB million</td>
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**TOTAL INVESTMENTS**

<table>
<thead>
<tr>
<th>Goal</th>
<th>Total Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Sustainable Development Goals</td>
<td>218.1 RUB BILLION</td>
</tr>
</tbody>
</table>

#### OUR PROGRAMMS

<table>
<thead>
<tr>
<th>Goal</th>
<th>Programs</th>
</tr>
</thead>
</table>
| 4  | - A comprehensive program of interaction between LUKOIL Group entities and institutions of higher education in the oil and gas, chemical and energy areas  
- Support programs for students and teachers of higher and secondary education organizations in Russia  
- Charity support for schools and educational institutions / centers  
- Personnel education programs |
| 5  | - We share the ILO standards for decent and productive work for women and men in terms of equal opportunities, providing social guarantees and respect for human dignity. |
| 6  | - LUKOIL Group entities Environmental Safety Program, Clean Water subprogram  
- Charity projects and programs  
- Social and Cultural Projects Competition («Ecology» nomination)  
- Volunteer actions to clean up river banks from garbage  
- Projects related to provision of drinking water in foreign countries |
| 7  | - RES Development Projects  
- Energy Conservation Programs of LUKOIL Group entities |

Taking into account the strategic guidelines of LUKOIL Group, the Company’s experience in implementing environmental and industrial safety programs, social programs for employees of our entities and for the regions in which our enterprises operate, as well as the expectations of interested parties, we have identified 11 priority UN Sustainable Development Goals and 15 Targets.

These goals and targets are harmoniously combined with operational programs implemented by LUKOIL Group entities, and are part of corporate planning and budgeting. Therefore, we believe that their implementation, alongside other steps taken by the Company, largely determines the contribution LUKOIL Group makes to achieve the UN global Sustainable Development Goals.
OUR PROGRAMMS
- Program of scientific and technical works
- Digital Development Programs as part of the Information Strategy of LUKOIL Group

EXPENSES 6,723 RUB million
TARGET 9.4

OUR PROGRAMMS
- Environmental Safety Program of LUKOIL Group entities, Biodiversity conservation subprogram
- Industrial environmental control
- Emergency Prevention and Response
- Biodiversity Conservation Program for the Company’s facilities operating in the Arctic zone of the Russian Federation

EXPENSES 13,493 RUB million
TARGET 15A

OUR PROGRAMMS
- Environmental Safety Program, Biodiversity and Remediation subprogrammes

EXPENSES 1,088 RUB million
TARGET 15A

OUR PROGRAMMS
- Personnel costs (remuneration and social programs)
- The costs for improvement of workplace environment and labor protection, reducing injuries and occupational illnesses

EXPENSES 151,586 RUB million
TARGETS 8.3, 8.8

OUR PROGRAMMS
- Program of scientific and technical works
- Digital Development Programs as part of the Information Strategy of LUKOIL Group

EXPENSES 6,723 RUB million
TARGET 9.4

OUR PROGRAMMS
- The Environmental Safety Program of LUKOIL Group entities, Clean Air subprogram
- Program for the rational use of APG of LUKOIL Group entities

EXPENSES 24,912 RUB million
TARGET 13.1

"LUKOIL contribution to the attainment of the UN Sustainable Development Goals" brochure
ABOUT THE REPORT

PJSC "LUKOIL" (hereinafter PJSC LUKOIL) is pleased to present the tenth Sustainability Report of the LUKOIL Group (hereinafter the LUKOIL Group is referred to as LUKOIL Group) (the “Report”) summarizing performance for the period from 1 January 2019 to 31 December 2019. The previous report was published in July 2019 (for the reporting period from 1 January 2018 to 31 December 2018).

Since 2014, LUKOIL Group has been consistently ranked among the top ten companies in the Responsibility and Transparency and the Sustainable Development Vector Indices compiled by the Russian Union of Industrialists and Entrepreneurs (RSPP) based on the analysis of public reporting of Russia’s 100 largest companies and stock market indices (the MOEX - RSPP Responsibility and Transparency Index and MOEX - RSPP Sustainable Development Vector Index).

We have been publishing sustainability reports since 2005. They are addressed to a wide range of stakeholders and seek to provide balanced information relevant to the interests of each stakeholder group. The Company pays significant attention to corporate governance of sustainability issues and continuously strives to improve the quality of reported information. We believe that independent audits of disclosed information and external assurance of the Report contribute to these objectives. The audit firm’s opinion is published on page 175. The conclusion of the RSPP Council on Non-Financial Reporting concerning the external assurance of the Report is published on page 179.

In preparing this Report, we used the following non-financial reporting standards and guidelines:

- Business Reporting on the Sustainable Development Goals (SDGs)
- Global Reporting Initiative (GRI) Sustainability Reporting Standards ("Core" option). The table of standard general and specific GRI disclosures and individual GRI indicators are provided in Appendices 3 and 4 respectively
- The United Nations Global Compact
- The Basic Performance Indicators and the Responsibility and Transparency and the Sustainable Development Vector Indices of the Russian Union of Industrialists and Entrepreneurs (RSPP)

We also used the following reporting platforms:

- Guidance on Core Indicators for Entity Reporting on Contribution Towards Implementation of the Sustainable Development Goals, UNCTAD, 2019
- SASB (Sustainability Accounting Standards Board) reporting standards - material topics and individual indicators
- IPIECA (International Petroleum Industry Environmental Conservation Association) Oil and Gas Industry Guidance on Voluntary Sustainability Reporting, 2019

The list of abbreviations, formulas for calculating a number of indicators, and definitions of terms are given in Appendix 7.

Throughout this document, the words “LUKOIL Group,” “LUKOIL,” “the Company,” “the Group,” the pronoun “we” and its various related forms refer to PJSC LUKOIL and LUKOIL Group entities, unless specified otherwise.

See page 172
At the same time, the reports highlight areas in 2019 where no significant improvements have been made and that require special attention in order to take more dynamic action. Four out of 17 SDGs are considered to be the most important areas of focus: combating climate change (SDG 13 “Climate Action”), reducing inequalities (SDG 10 “Reduced Inequalities”), protecting biodiversity (SDG 15 “Life on Land”), and solving the problem of waste (SDG 12 “Responsible Consumption and Production”).

According to the 2019 reports, climate change has a cumulative effect that poses risks for countries, companies, and people. Inequality continues to exist in many ways, including uneven distribution of value added among different factors of production, which leads to a lower share of the national product attributable to labor. So, too, the rate of biodiversity loss has increased significantly, including land degradation, forest loss, and loss of unique ecosystems.

Global consumption of resources is growing faster than population and global production, which means that the efficiency of their use is consistently low. This is also evidenced by a significant increase in waste generation. Much of this waste appears as a result of irreversible removal of natural wealth from the environment.

A group of independent scientists warns that the overlapping of negative trends would lead to irreversible changes in the Earth’s conditions. Experts expect that investment analysis methodologies used by investors and professional investment managers will include not only ESG indicators that are already widely used, but also data on companies’ contribution to implementation of the SDGs.

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EXPLORATION AND PRODUCTION

The Company has a high-quality portfolio of assets diversified both geographically and by type of reserves. Our proved reserves of oil and gas are mostly conventional. In 2019, they amounted to 15.8 billion BOE, 24% of which were gas. The Company’s proven reserve life is 18 years. In 2019, the Company’s annual oil production increased by 0.4% year-on-year due to production growth at its fields in the Caspian Sea and larger production of high viscosity crude oil in Timan-Pechora.

In 2019, LUKOIL expanded its participation in foreign projects: the Company acquired a stake in the deep-water Marine XII project in the Republic of the Congo; the Company also joined the Gasha concession in the Persian Gulf and the Zhenis block project in the Republic of Kazakhstan.

REFINING, MARKETING AND DISTRIBUTION

This business segment includes organizations whose operations relate to refining of hydrocarbons; transportation; wholesale and retail trade and trading; and generation of electricity and heat.

In 2019, refinery throughput at LUKOIL’s own refineries in Russia increased by 2.2% and by 1.9% in European entities as compared to 2018. The Company continued increasing the refinery yield and interfactory integration. The share of fuel oil in the product mix continues to decrease, with the growth of light products share. At the Volgograd Refinery, the production of low-sulfur marine fuel oil has begun, which complies with the requirements of MARPOL.

LUKOIL is developing production of new products, including next-generation bitumen. As part of this project, a modern bitumen materials research center was opened in the Nizhny Novgorod Region.

In the reporting year, a new lubricants plant was commissioned in Kazakhstan. Its capacity is 100 thousand tonnes.
of finished products. The launch of this plant will help optimize logistics in Central Asia. Biodegradable hydraulic and metalworking fluids are being developed, including special hydraulic oils that can be used in Arctic conditions.

The Power Generation business sector is represented by a complete vertically integrated chain, from generation to transmission and distribution of heat and power to external consumers (commercial power generation) and for operational needs (supporting power generation). The aggregate installed capacity of our power generating facilities was 6.4 GW, including the combined capacity of renewable power generating facilities of 0.4 GW.

In 2019, the Company completed a significant project for this business sector – renovation of Belorechensk Hydro Power Plant (HPP). Thanks to this project, the capacity of the plant reached 48 MW. The Company decided to construct the second solar power plant (SPP) with a capacity of 20 MW at the Volgograd Refinery (LLC LUKOIL-Volgogradneftepererabotka). Pilot projects to construct digital substations were continued.

The Corporate and Other business segment includes PJSC LUKOIL and other entities. One of the main functions of the corporate center is to coordinate and manage organizational, investment, and financial processes at the Company’s subsidiaries.

Full list of LUKOIL Group entities in accordance with IFRS is given in Appendix 1.

You can find more information about LUKOIL Group’s operational and financial performance in the Company’s financial reports:

The Annual Report of PJSC LUKOIL for 2019:

The Analyst Databook for 2019:

Key financial and operational indicators

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue, RUB billion</td>
<td>5,937</td>
<td>8,036</td>
<td>7,841</td>
</tr>
<tr>
<td>EBITDA, RUB billion</td>
<td>832</td>
<td>1,115</td>
<td>1,236</td>
</tr>
<tr>
<td>Total debt to EBITDA, %</td>
<td>74</td>
<td>48</td>
<td>45</td>
</tr>
<tr>
<td>Capital expenditures, RUB billion</td>
<td>511</td>
<td>452</td>
<td>450</td>
</tr>
<tr>
<td>Free cash flow, RUB billion</td>
<td>247</td>
<td>555</td>
<td>702</td>
</tr>
<tr>
<td>Research and development costs, RUB billion</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Number of patents received, patents</td>
<td>20</td>
<td>37</td>
<td>30</td>
</tr>
<tr>
<td>Labor productivity, RUB million / person</td>
<td>57</td>
<td>78</td>
<td>77</td>
</tr>
<tr>
<td><strong>Operational</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production of oil and gas condensate (including the share in associates), million barrels of oil equivalent</td>
<td>645</td>
<td>644</td>
<td>646</td>
</tr>
<tr>
<td>Crude oil production (including the share in associates), thousand tonnes</td>
<td>87,414</td>
<td>87,124</td>
<td>87,488</td>
</tr>
<tr>
<td>Gas production, million cubic meters</td>
<td>28,861</td>
<td>33,543</td>
<td>35,046</td>
</tr>
<tr>
<td>• including APG</td>
<td>8,942</td>
<td>8,772</td>
<td>9,548</td>
</tr>
<tr>
<td>Output of petroleum products, thousand tonnes1</td>
<td>69,908</td>
<td>70,188</td>
<td>69,296</td>
</tr>
<tr>
<td>Lubricants production (full cycle), thousand tonnes</td>
<td>998</td>
<td>961</td>
<td>963</td>
</tr>
<tr>
<td>Output of marketable petrochemicals, thousand tonnes</td>
<td>1,171</td>
<td>1,246</td>
<td>1,137</td>
</tr>
</tbody>
</table>

1 The total electric capacity of the Group’s entities takes into account facilities owned by the Company but leased out to other legal entities.
2 The data do not include the West Qurna-2 project.
3 At own, affiliated, and third-party refineries (according to the Group’s share).
WHAT DO YOU THINK ABOUT THE CHANGES TO THE SUSTAINABILITY MANAGEMENT SYSTEM IN 2019?

Significant efforts were made last year to develop the corporate sustainability management system, and we are already getting positive feedback on those changes from our stakeholders. The Board of Directors, together with the Strategy, Investment, and Sustainability Committee, initiated defining system-wide activities and tasks, both for the near and long term. At meetings the governing bodies reviewed the most pressing issues concerning environmental and industrial safety, and risk management, with a special focus placed on climate change. We intend to proceed with these efforts and believe that the Company’s key task is to achieve meaningful results, both for shareholders and society in general.

Evgeny Khavkin
Vice President – Chief of Staff of PJSC LUKOIL
WHAT CHANGES DID THE SUSTAINABILITY TASK FORCE SEE?

The Sustainability Task Force has the heads of the Company’s dedicated divisions as its members. The goal of the Task Force is to coordinate the efforts of its members and to develop a united position on sustainable development issues. In 2019, independent members of the Board of Directors and external experts and advisers took part in the Sustainability Task Force’s meetings, which had a significant positive impact on the level and quality of discussions and expanded the range of matters discussed. The expansion of the Task Force’s functions testifies to the high importance of sustainability matters to the Company.
### The Reporting Year’s Changes and Results Include

<table>
<thead>
<tr>
<th>Changes and Results</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>An increase in the number of board meetings where sustainability matters were discussed</td>
<td></td>
</tr>
<tr>
<td>The board of directors made a decision to set long-term climate goals</td>
<td></td>
</tr>
<tr>
<td>The board of directors enhanced its engagement with investors on sustainability and climate issues</td>
<td></td>
</tr>
<tr>
<td>The functions of the strategy, investment and sustainability committee were expanded</td>
<td></td>
</tr>
<tr>
<td>A sustainability management function was introduced at the management committee level</td>
<td></td>
</tr>
<tr>
<td>The number of sustainability task force meetings increased and the range of issues discussed expanded</td>
<td></td>
</tr>
</tbody>
</table>
SUSTAINABILITY AND CLIMATE CHANGE MANAGEMENT

The management system was modified in 2019, bringing real improvements in management systems and processes as well as disclosure approaches.

Sustainability management system structure at PJSC LUKOIL

<table>
<thead>
<tr>
<th>MANAGEMENT LEVEL</th>
<th>AREAS OF SUSTAINABILITY EFFORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Board of Directors of PJSC LUKOIL</strong>&lt;br&gt;Chairman: Valery Grayfer&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Issues regularly considered at the Board of Directors’ meetings include the following:&lt;br&gt;• Climate change — NEW&lt;br&gt;• Assessing the results of the Environmental Safety and the Industrial Safety Programs, Better Working Environment, Emergency Prevention and Response Program;&lt;br&gt;• Review of issues related to the HSE at LUKOIL Group;&lt;br&gt;• Review of information on major incidents and accidents, their causes, the results of response measures, as well as actions taken to mitigate similar risks in the future</td>
</tr>
<tr>
<td><strong>The Strategy, Investment and Sustainability Committee of the Board of Directors of PJSC LUKOIL</strong>&lt;br&gt;Chairman: Sergei Shatalov, an independent member of the Board of Directors&lt;br&gt;Igor Ivanov, an independent member of the Board of Directors, held this position until 20 June 2019</td>
<td>The Committee is, among other things, responsible for:&lt;br&gt;• preparing recommendations for the Board of Directors on the following:&lt;br&gt;  - strategic goals in sustainable development, including climate agenda, industrial safety, environmental activities and social responsibility,&lt;br&gt;  - integration of those goals into the Strategic Development Program of LUKOIL Group — NEW,&lt;br&gt;  - enhancement of the corporate governance system,&lt;br&gt;  - development and evaluation of the Company's engagement with stakeholders on sustainability matters — NEW,&lt;br&gt;  - improvement of the quality of disclosures in LUKOIL Group's Sustainability Report,&lt;br&gt;  - consideration of sustainability reporting, including LUKOIL Group's Sustainability Report;&lt;br&gt;• monitoring of the improvement of HSE management system procedures;&lt;br&gt;• analyzing the causes of incidents and accidents;&lt;br&gt;• monitoring relations with stakeholders;&lt;br&gt;• evaluating the effectiveness of the Company's long-term activities</td>
</tr>
</tbody>
</table>

1 Valery Grayfer was a Chairman of the Board of Directors of PJSC LUKOIL until 24 April 2020 (date of death). During the preparation of the Report Ravil Maganov was appointed Chairman of the Board of Directors by resolution of the Board of Directors of PJSC LUKOIL (Minutes No.11 dated 23 June 2020).
The Audit Committee of the Board of Directors of PJSC LUKOIL

Chairman: Viktor Blazheev, an independent member of the Board of Directors

The Committee, among other things, oversees:

- processes used to ensure reliability and efficiency of the risk management and internal control system;
- procedures ensuring compliance with the requirements of applicable laws, corporate ethical standards, rules and procedures, as well as stock exchange requirements;
- whistleblowing procedures for potential bad faith actions on the part of LUKOIL Group employees and third parties, or other violations.

The Human Resources and Compensation Committee of the Board of Directors of PJSC LUKOIL

Chairman: Roger Munnings, an independent member of the Board of Directors

The Committee is, among other things, responsible for:

- preparation of proposals for the Board of Directors on the development of the corporate HR policy;
- annual review of the Board of Directors and its members’ performance;
- developing and revising periodically the Compensation Policy for members of the Board of Directors, the Management Committee, and the President of the Company, and also monitoring implementation.

The Management Committee of PJSC LUKOIL

President, Chairman of the Management Committee: Yagit Alekperov

The Management Committee is responsible for the management of LUKOIL Group’s day-to-day operations.

The matters discussed by the Management Committee at its meetings include but are not limited to:

- the progress and implementation of the Strategic Development Program and development plans and approval of their results;
- securing the highest HSE standards, approval of HSE corporate policy, analyzing efficiency of the HSE management system and improving its performance;
- approval of target HSE programs;
- the functioning of the risk management and internal control system;
- reviewing the report “The State of HSE at LUKOIL Group”
Evgeny Khavkin, a member of PJSC LUKOIL Management Committee, Vice President, Chief of Staff of PJSC LUKOIL

The Corporate Secretary of PJSC LUKOIL and the Office of the Corporate Secretary are responsible for:

- engagement with the Board of Directors and Board committees on sustainable development issues;
- initiating actions to improve the quality of sustainability management to ensure better integration of sustainability issues into business processes;
- participation in coordinating sustainability reporting efforts;
- participation in stakeholder engagement, including preparation of responses to shareholder and investor requests regarding the Group’s sustainability performance.

The Sustainability Task Force (hereinafter the Task Force) sets goals and contributes to developing a single corporate position on relevant sustainability and climate change matters at its meetings. The range of matters discussed was expanded in 2019, which is reflected in the Task Force’s new name.

The Sustainability Task Force is responsible for:

- organization of communications and interaction between relevant divisions of PJSC LUKOIL, setting goals to implement changes in management systems;
- organizing and monitoring the process of Sustainability Report preparation;
- enhancing the system of collecting, preparing and disclosing reporting information;
- preparing recommendations for governing bodies on the matters discussed;
- analyzing feedback from stakeholders on sustainable development issues.

NEW

Vice President for Sustainability
Evgeny Khavkin

The Vice President for Sustainability is responsible for:

- organization and development of a single corporate position;
- coordination of works related to the creation and implementation of unified corporate information policy on sustainability;
- ensuring interaction and coordination of collaboration among structural units;
- organizing and ensuring engagement with all stakeholders;
- development of internal regulations and a regulatory framework;
- organizing activities of the Sustainability Task Force, development of its work plans, and monitoring the implementation of its decisions;
- preparation of proposals on the improvement of the sustainability management system and practices at PJSC LUKOIL and other LUKOIL Group entities.

NEW

The Corporate Secretary of PJSC LUKOIL
Natalia Podolskaya

The Corporate Secretary of PJSC LUKOIL and the Office of the Corporate Secretary are responsible for:

- engagement with the Board of Directors and Board committees on sustainable development issues;
- initiating actions to improve the quality of sustainability management to ensure better integration of sustainability issues into business processes;
- participation in coordinating sustainability reporting efforts;
- participation in stakeholder engagement, including preparation of responses to shareholder and investor requests regarding the Group’s sustainability performance.

NEW

The Sustainability Task Force
Head: Evgeny Khavkin

The Sustainability Task Force (hereinafter the Task Force) sets goals and contributes to developing a single corporate position on relevant sustainability and climate change matters at its meetings. The range of matters discussed was expanded in 2019, which is reflected in the Task Force’s new name.

The Sustainability Task Force is responsible for:

- organization of communications and interaction between relevant divisions of PJSC LUKOIL, setting goals to implement changes in management systems;
- organizing and monitoring the process of Sustainability Report preparation;
- enhancing the system of collecting, preparing and disclosing reporting information;
- preparing recommendations for governing bodies on the matters discussed;
- analyzing feedback from stakeholders on sustainable development issues.

1 The name of the Task Force was changed pursuant to PJSC LUKOIL Order No. 173 dated 30 September 2019.
The Health, Safety and Environmental (HSE) Committee of PJSC LUKOIL

Chairman: Ravil Maganov, First Executive Vice President of PJSC LUKOIL

The Health, Safety and Environmental Committee is responsible for:
- developing a Health, Safety and Environmental Policy, setting goals and assigning tasks, assessing significant risks and opportunities in HSE, analyzing environmental issues (including climate-related issues) and the achievement of key performance indicators (KPIs)
- analyzing and approving any HSE initiatives and assessing their effectiveness
- evaluating compliance of LUKOIL Group’s activities with applicable laws and other HSE requirements
- preparing proposals on the improvement of LUKOIL Group’s HSE management system.

PJSC LUKOIL

Heads of relevant divisions manage the implementation of strategic and targeted programs that address sustainable development issues, including climate, water use, biodiversity and waste.

LUKOIL Group entities

Heads of LUKOIL Group entities

Make operational decisions at enterprise level to ensure that industrial safety, environmental protection, and injury rate targets are attained as required. Ensure the achievement of targets approved by the Group’s Corporate Center.

Heads of dedicated business units

Lead the implementation of strategic and target programs.
BOARD OF DIRECTORS

During the reporting year, the members of the Board of Directors became much more active in discussing and promoting the sustainability and climate agenda at the Company. Relevant matters were included in the agenda of several meetings during the reporting year. The number of matters raised and related tasks doubled year-on-year.

For more detail, see the section of the Report entitled “Climate Change.”

The Board of Directors also enhanced its engagement with stakeholders on climate change. Specifically, a meeting was held with representatives of an investment fund participating in the Climate Action 100+ initiative.

Independent Member of PJSC LUKOIL Board of Directors Toby Gati was actively involved in sustainability and climate change discussions at meetings of the Board of Directors and the Sustainability Task Force and provided recommendations, including regarding the improvement of disclosures.

The goals and objectives for further development of sustainable development activities are set. Significant focus will be placed on the development of measures in response to climate change.

Another important focus area will be the enhancement of occupational and environmental safety, as well as the overall improvement of the sustainability management system and practices, and determination of the contribution to the United Nations’ Sustainable Development Goals.

A PARTIAL LIST OF MATTERS related to sustainable development discussed by the Board of Directors in 2019 included:

- Implementation of the Strategic Development Program of LUKOIL Group during 2018-2027
- Potential for growth given the transition to a low-carbon economy
- Key global trends in the liquid hydrocarbon market in the period through 2035
- Enhancement of the risk management and internal control system
- Anti-corruption measures
- Implementation of the Code of Business Conduct and Ethics of PJSC LUKOIL
- Occupational health and safety status and measures to improve the level of work safety
- Engagement with PJSC LUKOIL investors and shareholders
- LUKOIL Group’s Sustainability Report for 2018
- Implementation of target and functional programs
## Composition and activities of the Board of Directors and its committees in 2019

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Board of Directors of PJSC LUKOIL</th>
<th>Strategy, Investment and Sustainability Committee</th>
<th>Audit Committee</th>
<th>Human Resources and Compensation Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of members</td>
<td>11</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Types of members</td>
<td>independent 6/3/2, executive 1/3, non-executive directors 2/2/0</td>
<td>2/2/0, 3/0/0, 3/0/0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender composition</td>
<td>women 2/9, men 1/3</td>
<td>women 1/3, men 0/3</td>
<td>0/3</td>
<td>0/3</td>
</tr>
<tr>
<td>Number of meetings</td>
<td>personal 9/11, absentee 2/0</td>
<td>personal 7/0, absentee 8/0</td>
<td>8/0</td>
<td>6/1</td>
</tr>
<tr>
<td>Number of sustainability development matters discussed</td>
<td>20</td>
<td>15</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Attendance rate at personal meetings, %</td>
<td>93</td>
<td>82</td>
<td>92</td>
<td>83</td>
</tr>
</tbody>
</table>

Information on the structure of PJSC LUKOIL Board of Directors, compliance of the Company's corporate governance practices with the Bank of Russia's Corporate Governance Code, details of the Board members and other information are published in annual reports and on the Company's website in the section "Corporate Governance":

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1. According to the recommendations of the Corporate Governance Code, executive directors are understood not only as members of the Management Committee of PJSC LUKOIL, but also as persons having working relationships with the Company.
2. It is common practice for PJSC LUKOIL to hold absentee meetings. Typically, absentee meetings are called to discuss matters requiring quick approval that cannot be planned beforehand.
STRATEGY, INVESTMENT AND SUSTAINABILITY COMMITTEE

The Strategy, Investment and Sustainability Committee plays a key role in advancing LUKOIL Group’s sustainability efforts. The number of matters related to sustainable development on the Committee’s agenda has risen significantly. All relevant matters put before the Board of Directors are first considered by the Committee. In the reporting year, the Committee also considered the development of investor relationships, implementation of functional programs, and a cost-saving program.

AUDIT COMMITTEE

Key matters discussed by the Committee members in the reporting year concerned the systematization of anti-corruption measures, external assessment of a PJSC LUKOIL internal audit methodology, as well as further improvement of the risk management system. An independent assessment of the internal audit was conducted.

The Board of Directors charged the Committee with the drafting of an Anticorruption Policy, an internal regulatory document which will systematize the Company’s anticorruption position and outline the anticorruption framework, goals and objectives.

HUMAN RESOURCES AND COMPENSATION COMMITTEE

Matters discussed by the Committee at its meetings included, among others, processes related to personnel management, improvement of the compensation and incentive system for the Company’s senior executives, effectiveness of prevention measures ensuring that employees’ labor rights and interests are respected, and the results of a staff morale and motivation survey conducted at LUKOIL Group entities. Committee members also considered issues pertaining to the implementation of ethical standards and analyzed feedback from employees on those issues.

The Committee conducted an analysis of matters related to the external assessment of the Board of Directors’ performance in the reporting year and made a decision to consider the feasibility of implementing the external assessment.

SUSTAINABILITY TASK FORCE

As the volume of reporting information continually grew, sustainability reporting standards expanded and became more complicated and, especially given the need to enhance relations with all groups of stakeholders, the functions of the Task Force were expanded in 2019 resulting in its renaming.

In 2019, the Sustainability Task Force conducted four meetings. Toby Gati, an independent member of the Board of Directors, and experts on various sustainability areas were present at some of those meetings. Among other things, the following issues were examined in 2019:

- methodology for identifying material topics of the Sustainability Report
- reporting boundaries
- legal regulation of climate change matters in Russia
- assessment of reporting boundaries and preparation of a GHG emission inventory
- the framework for and stages of preparation of the Report
- development of Regulations on the Preparation of a Sustainability Report
- feedback from investors.

To strengthen the competencies of the Task Force members, a workshop titled “The outlook for legal regulation of sustainability matters in the Russian Federation after the ratification of the Paris Agreement” was held to which independent experts from KPMG were invited.

With the active involvement of the Corporate Secretary, the level of informing the Board of Directors and management on the most relevant issues of sustainable development for stakeholders was increased. In particular, meetings1 with a representative of Hermes, an investment fund participating in the Climate Action 100+ initiative, were organized where the goals of the initiative and investor’s informational expectations were discussed with Task Force members. An expert on climate reporting with a solid track record with CDP presented current projects to monitor corporate activity in mitigation and adaptation to climate change.

The Company is stepping up its efforts to raise awareness of stakeholders about LUKOIL Group’s position on and contribution to the attainment of the United Nations’ Sustainable Development Goals. A brochure “Contribution to the Attainment of the UN Sustainable Development Goals” was published by LUKOIL.

The Company plans to continue its efforts to implement a sustainability management system, including the adoption of the following documents in 2020:

- Anticorruption policy
- Program for Development of Renewable Energy Sources
- Regulations on the Preparation of a Sustainability Report

LUKOIL will also keep working to ensure Company adaptation to climate change.

1 The meetings took place in January-February 2020.
HEALTH, SAFETY AND ENVIRONMENTAL (HSE) COMMITTEE OF PJSC LUKOIL

The Committee is an effective mechanism for liaison between the Company’s management and functional and linear divisions of PJSC LUKOIL and LUKOIL Group entities on industrial, fire and environmental safety, health and accident prevention.

The Committee was established in 2016 to advance the HSE management system in LUKOIL Group and is led by Ravil Maganov, a member of the Board of Directors, thus ensuring communication of health, safety and environmental matters to the Board of Directors. The Board of Directors is presented annually a report on the state of the management system in those areas, and the results of activities and initiatives undertaken to improve the management quality and speed of decision-making.

The Committee holds meetings twice a year. The first meeting is held to consider material risk registers for LUKOIL Group in HSE issues, as well as regulatory developments in countries where LUKOIL is present. Those factors are subsequently taken into account during the development and implementation of target programs. The second meeting is devoted to taking stock of progress of health and safety programs for the reporting year, making plans for the future period, and considering initiatives to promote a culture of safety at the Company.

In 2019, the Committee took several decisions to further promote a culture of safety and leadership culture and to introduce changes to target programs for 2020-2023.

EMERGENCY AND ACCIDENT WARNING SYSTEM

The Company has a system for monitoring, warning, communication and reporting on emergency situations and accidents covering all levels of management of LUKOIL Group, including the Board of Directors and the Health, Safety and Environmental Committee of PJSC LUKOIL.

The functioning of the system is regulated by standards and local regulations developed on the basis of legal requirements.

In order to improve the efficiency of PJSC LUKOIL’s response to potential accidents with risks of serious consequences (death of employees and significant damages), the Operational Headquarters was established1 to deal with accidents at hazardous production facilities of LUKOIL Group entities.

CORPORATE SECRETARY

Corporate Secretary Natalia Podolskaya pays significant attention to sustainable development matters. Taking into account that sustainable development is identified as one of the goals of LUKOIL Group’s strategic development, the Corporate Secretary is committed to supporting the initiatives of the Company and encouraging the practical application of expertise and exceptional competencies of the Board of Directors members in this field. As a result, Natalia Podolskaya facilitated the participation of Leonid Fedun, a member of the Board of Directors of PJSC LUKOIL, Vice President for Strategic Development of PJSC LUKOIL, and Toby Gati, an independent member of the Board of Directors, in active work to improve the sustainable development system.

The Corporate Secretary is actively involved in coordinating the preparation of the sustainability reporting of LUKOIL Group and interacts with the relevant structural divisions of the Company, as well as with members of the Strategy, Investment and Sustainability Committee of PJSC LUKOIL’s Board of Directors. Special focus is placed on the formulation of the agenda and preparation of meetings of the Sustainability Task Force, including the invitation of external experts and representatives of various stakeholders to the meetings.

In order to promote stakeholder engagement, the Corporate Secretary deals with incoming requests using all available information channels: mail, e-mail, and a dedicated internal portal of the Sustainability Task Force. All requests are processed and discussed with structural units with the subsequent provision of comprehensive information on requests and proposals received.

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1 Order No. 48 of PJSC LUKOIL dated 23 March 2015
SUSTAINABLE DEVELOPMENT AWARDS IN 2019

For the second year in a row, PJSC LUKOIL ranks first in the ESG rating managed by the rating agency RAEX. The rating evaluates the way in which environmental, social and managerial risks of a company are taken into account in its strategy and management, which indicates the long-term sustainability of the business.

Based on evaluation results, LUKOIL Group’s Sustainability Report for 2018 was the prize winner in the RSPP nomination for “The Best Report on Corporate Social Responsibility and Sustainable Development” in the Moscow Exchange’s 22nd Annual Report Competition in 2018.

PJSC LUKOIL was one of the winners of the contest for the best socially responsible oil and gas companies of 2018. Results of the contest were announced at the Ninth International Gas Forum in Saint-Petersburg. The contest is organized by the Ministry of Energy of the Russian Federation. The Company was awarded certificates for the development of charitable activities, for the best public non-financial report by an oil and gas company, and also won a certificate with a special badge of the Russian fuel and energy complex for its active social policy.

RISK MANAGEMENT

The Company’s management places considerable emphasis on risk management issues to provide reasonable assurance as to the achievement of strategic goals in the face of uncertainties and negative factors.

PJSC LUKOIL regularly identifies, describes, evaluates and monitors possible events that could adversely affect the Company’s activities, develops measures to prevent their occurrence or to minimize the negative impact in case such events occur. The Company constantly works on the identification and assessment of new risks and on updating relevant information in the corporate information system.

LUKOIL Group’s Risk Management and Internal Control Policy sets forth unified and mandatory basic principles and approaches to organizing the risk management system of the Company, and the key objectives of the system, as well as key tasks of the risk management system participants at PJSC LUKOIL.

Key sustainability risks include:
• climate change risks
• health, safety and environmental risks
• risk of shortages of qualified personnel
• reputational risks.

Certain steps were taken to enhance the risk management system in the reporting year.
• Work continued to improve the practice of accounting for risks when making key investment decisions.
• Draft internal regulatory documents were prepared and forwarded for approval. These were developed with the aim of strengthening the risk management system at LUKOIL Group entities in accordance with PJSC LUKOIL Risk Management and Internal Control Policy, as well as improving the Company’s investment activities and corporate governance.

Sixteen groups of the most significant risks affecting the business activities of LUKOIL Group entities were identified. The qualitative and quantitative assessment of such risks is carried out annually according to risk probability criteria and criteria on the magnitude of the consequences. Risk appetite was defined for each material risk, and measures were developed to mitigate or eliminate their negative impact. The staff of the Risk Management Division and relevant blocks monitor the implementation and effectiveness of the measures.

By reporting the risks identified, we inform stakeholders about certain circumstances that may worsen the performance of the Company with some certain probability. At the same time, PJSC LUKOIL is making due efforts to minimize the risks associated with its own production activities in the regions of where the Company operates.

The text of PJSC LUKOIL Risk Management and Internal Control Policy is available on PJSC LUKOIL website at:
A list of key sustainability risks

DESCRIPTION OF RISK CATEGORY  RISK MANAGEMENT AND MITIGATION ACTIVITIES

Climate change risks

Strengthened climate change regulations could adversely impact operations of PJSC LUKOIL as a major fossil fuel producer and greenhouse gas emitter by driving costs up and performance down. Additionally, LUKOIL Group operates in various regions with hard-to-predict potential climate change impacts that may result in a significant adverse effect.

We minimize this risk by:
• recording greenhouse gas emissions and planning initiatives aimed at their control;
• carrying out constant monitoring of relevant legislative changes and taking steps to obtain information about them at the preliminary discussion stage, as well as ensuring our representatives participate during the preliminary discussions so that the risks and uncertainties that may arise from new legislative initiatives are clarified and our views in relation to the proposed changes have been represented;
• taking climate change risk into account when designing and constructing facilities in environmentally sensitive areas (the Far North, offshore facilities).

For more detail, see the section of the Report titled “Climate Change”

Health, safety and environmental risks

The Company’s facilities are exposed to risks of process disruptions, hazardous releases, environmental damage, accidents, fires, and incidents that may result in unscheduled idle time at these facilities.

To mitigate these risks, we designed and successfully deployed the Environmental Protection, Occupational Health and Safety Management System certified to ISO 14001 and OHSAS 18001. The following key initiatives are being implemented:
• target corporate HSE programs;
• industrial control over the operation of hazardous production facilities;
• a process ensuring contractors’ end-to-end compliance with mandatory HSE requirements;
• development of leadership and safety culture;
• the appointment of qualified staff across various business levels;
• development of Plans to Localize and Mitigate the Consequences of Accidents at Hazardous Production Facilities (PLMA) and the Spill Prevention, Control, and Countermeasure (SPCC) Plans; maintaining a pool of emergency personnel and resources; and training personnel who operate hazardous production facilities as well as the emergency response teams applying PLMA and SPCC Plans.

For more detail, see the sections of the Report “Safety” and “Environment”
Risk of shortage of qualified personnel

Insufficient skills or qualifications of personnel may have an adverse effect on our financial performance.

To mitigate this risk, we focus on the comprehensive development of our talent pool. LUKOIL’s talent management strategy is aligned with its development strategy and the staffing demand of its business segments based on planning and budgeting processes that enable the workforce to be efficiently reallocated through insourcing as well as flexible recruitment, professional training, and developing talent.

For more detail, see the section of the Report “Our Staff”.

Reputational risks

PJSC LUKOIL is exposed to various factors that may cause reputational risks due to both internal and external factors, including noncompliance with statutory requirements, constituent documents, and internal regulations, as well as through breach of contractual obligations, poor product quality, and a rise in negative perceptions of our financial stability and position.

To mitigate this risk, we make efforts to:

• maintain regular communication with our stakeholders;
• providing unbiased information on financial and operational performance in a timely manner;
• ensure continuous monitoring of compliance with statutory requirements and effective agreements;
• effect timely payments to counterparties.

The company controls the quality of its products and services. For instance, the Filling Stations Hotline has been set up to promptly address any comments and suggestions regarding filling stations operations. We pay close attention to safety and environmental protection and operate in line with the best HSE standards. We place a great emphasis on social responsibility and working conditions, maintaining and improving our effective occupational health and social security framework through targeted programs.

See more in the sections of the Report on “Ethics and Statutory Compliance,” “Safety,” “Environment,” “Our Staff” and “Communities.”

The risk management system also comprises the following categories which includes risks and respective mitigation actions:

- strategic, country, competitive risks, macroeconomic, financial, legal and industrial risks, risks of terrorist acts, illegal actions of third parties, etc.

A full description of the risks and their management measures is disclosed in line with regulatory requirements, as well as in annual reports of PJSC LUKOIL. A detailed description of the risk management system, including the stages, organizational structure and functional map of the participants, is provided in Section “Corporate Governance” of the Annual Report for 2019.

For more details see p. 123.
ETHICAL STANDARDS

Adherence to ethical standards is at the core of our corporate culture. These standards are set forth in the PJSC LUKOIL Code of Business Conduct and Ethics and cover various aspects, including:

- respect for human rights (including labor rights, the rights of local communities and small indigenous peoples, and freedom of association and trade union activity)
- zero tolerance towards and combatting corruption and fraudulent activities
- adherence to fair competition rules
- statutory compliance.

The principles of the Code of Business Conduct and Ethics are consistent with the provisions of the United Nations and the International Labor Organization (ILO) conventions ratified by the Russian Federation, including those related to the observance of human rights and the prevention of corruption.

For more detail, see Appendix 6.

We promote ethical behaviors among our business partners, suppliers and contractors, informing them of our rules, and strongly suggest them to familiarize themselves with the PJSC LUKOIL Code of Business Conduct and Ethics, where all basic principles regarding human rights are stated, before signing any contract.

This document can be found on the Company’s website at:

STATUTORY COMPLIANCE

The Company respects laws of the countries where its facilities and offices operate, strives to prevent any violations of law, and supports the principles of free and fair competition and fair business conduct.

No material claims1 relating to any violations of anti-trust, product quality and labor relations laws were initiated against the Company in 2019. One significant fine amounting to RUB 68.9 million relating to the Company’s environmental impact was paid in Russia (see Section on “Environmental Protection”).

The Company publishes a Report on Budgetary Contributions annually. This reporting is aimed at increasing the transparency of the Company’s payments made in the countries of operations. Reports are available on the corporate website:

In 2019, during an internal audit, 53 cases of violation of local regulatory acts, that are obligatory for execution, were revealed in the organizations of LUKOIL Group. Entities took measures to prevent such violations in the future. At the same time, there were no violations of the norms and provisions of the Code of Business Conduct and Ethics of PJSC LUKOIL. Identified cases of violations are not significant, that is, do not affect the achievement of the strategic goals of the Company.

Stakeholders can contact the Business Ethics Commission using any available communication channels, including in English: ethics@lukoil.com (available 24/7), via delivery of a written report to the Commission, or by telephone. The contact information of the Business Ethics Commission is provided in the Code of Business Conduct and Ethics of PJSC LUKOIL.

1 See Appendix 7 for the definition of a material claim relating to the breach of law.
LUKOIL Group entities comply with the tax legislation in effect in the countries in which they operate. In 2019, the following taxes\(^1\) were paid:

- abroad: USD 3.3 billion
- in the Russian Federation: RUB 1,122 billion, including RUB 854 billion to the federal budget, RUB 127 billion to the budgets of Russia’s constituent entities, and RUB 0.54 billion to local budgets; RUB 140 billion in excise taxes.

**ANTICORRUPTION MEASURES**

LUKOIL promotes a zero tolerance approach when it comes to corruption. The Company does not tolerate any payments or other forms of incentives provided to representatives of state authorities.

The rules of anti-corruption behavior are included in the set of internal standards for many business processes, including the ones that regulate ensuring corporate security and confidentiality of information, conducting tender procedures and preventing conflicts of interest.

In foreign countries, in addition to corporate-wide regulations, local regulatory documents can apply, which were adopted either voluntarily or in accordance with local legislation and govern economic security and anticorruption issues. For example, the Company’s operations in Uzbekistan are governed by the Anticorruption Regulations of LLC LUKOIL Uzbekistan Operating Company\(^2\). Based on the commitment to high ethical standards of doing business, the Board of Directors decided to develop a document establishing common principles, goals and objectives to combat corruption, and therefore instructions were given to draft such a document and submit it to the Board for its approval in 2020.

**HUMAN RIGHTS**

The Company reaffirms its commitment to the principles of human rights compliance, including freedom of speech, set forth in the Universal Declaration of Human Rights and other UN documents, such as UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises and the Voluntary Principles on Security and Human Rights (see Appendix 6).

The Company prohibits any forms of violence and violation of human dignity in compliance with the Russian Constitution. The Company expects its business partners to respect and apply the same principles in this area.

The Company respects and strictly observes human rights. A manifestation of aggression\(^3\) in any form is unacceptable in the Company. The company considers it unacceptable to obstruct the activities of human rights defenders and shows due respect for human rights activities carried out within the legal framework.

The Company expects that similar approaches are applied by its partners. If a violation of human rights is committed as a result of the activities of the Company and/or its individual representatives, LUKOIL undertakes to take measures to eliminate the consequences of such violations.

Entering contractual relationship with our partners, we inform them of our high requirements for ethical business conduct and respect for human rights, and urge them to follow these requirements, defining it as a condition for long-term cooperation with our Company.

We inform our employees and other stakeholders about our human rights policy. Standards of human rights compliance are enshrined in the Code of Business Conduct and Ethics of PJSC LUKOIL and are mandatory for all LUKOIL Group entities.

In 2019, there were no received complaints on human rights disregard in LUKOIL Group entities, including child, forced and slave labor, forced resettlement of indigenous peoples\(^4\).

We believe that human rights are a comprehensive concept that affects all aspects of our activities, including labor rights, the right to a healthy environment, quality products, the rights of indigenous peoples, etc. This Report provides information on what LUKOIL is doing in these areas. At the same time, a top priority for the Company is the prevention of violations of labor rights, the preservation of workers’ life and health, and the observance of the rights of local residents whose interests are affected by our facilities.

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\(^1\) The amount of taxes comprises income tax and excise taxes. The calculation methodology for the indicator will be reassessed in line with the GRI Standard 207 Tax 2019.

\(^2\) Order No. 150 dated 2 April 2018.

\(^3\) Aggression means threats, intimidation, legal attacks, physical injuries.

\(^4\) The hotline has not been contacted concerning any human rights violations (see Ethics section).
According to Russian law, minorities are ethnic groups of no more than 50 thousand people.

Social partnership
LUKOIL’s regular interaction with the International Association of Trade Union Organizations of PJSC LUKOIL (IATUO), the International Labor Organization (ILO) and IndustriALL Global Union helps to implement best practices in complying with labor rights and serves as a platform for social dialogue. We use common principles and approaches to working with staff in all countries and regions where we are present, taking into account the specifics and characteristics of local culture.

As part of social partnerships, the scope of the social commitments of the Company and trade union organizations that are parties to agreements is revised and updated on a regular basis. Those commitments are documented in collective agreements covering all full-time staff. The Russian entities that did not conclude collective agreements are directly covered by the Industry Agreement for Organizations of the Oil and Gas Sectors and the Construction of Oil and Gas Facilities of the Russian Federation.

In 2019, collective agreements were in effect in 49 Russian and 9 foreign entities.

The Company uses the following tools to monitor the compliance of human rights both in Russia and abroad:

- Social partnership
- Surveys on the moral and psychological environment in labor groups
- Annual corporate audits of HR services to verify compliance with labor laws and corporate requirements (HR audits)
- Interaction with indigenous minorities of the North (hereinafter – IMN)
- Interaction with local communities where we work

Share of employees covered by collective agreements in LUKOIL Group, %

<table>
<thead>
<tr>
<th>Year</th>
<th>Share of Employees Covered by Collective Agreements in LUKOIL Group Entities</th>
<th>Share of Russian Entities’ Employees Covered by Collective Agreements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>88.0</td>
<td>95.1</td>
</tr>
<tr>
<td>2018</td>
<td>90.1</td>
<td>97.7</td>
</tr>
<tr>
<td>2019</td>
<td>88.9</td>
<td>96.4</td>
</tr>
</tbody>
</table>

1 According to Russian law, minorities are ethnic groups of no more than 50 thousand people.
HR audits

HR audits involve auditing the processes associated with the documentation of labor relations, payroll, the compliance with labor laws, the Company’s regulations, and other requirements covering labor law provisions. HR audits also check the procedure for documenting disciplinary actions that may be associated with employees’ non-compliance with the Code of Business Conduct and Ethics (e.g. information on the employment of relatives as direct subordinates may be requested).

Effective management systems are reviewed, including those ensuring non-discrimination. Based on the results of the audit, the Company develops recommendations for the enhancement of personnel management processes. In 2019, audits were conducted in 11 LUKOIL Group entities1. No material violations of human and labor rights were identified.

Monitoring staff morale and motivation

The company regularly monitors compliance with human rights, including conducting a study of the moral and psychological context in LUKOIL Group entities. In 2019, the results of monitoring the moral and psychological context were reported at a meeting of the Human Resources and Remuneration Committee of the Board of Directors of PJSC LUKOIL. The control section showed a good moral and psychological climate and a high level of satisfaction of the Company’s employees with working conditions.

Monitoring of psychological context is conducted by regular surveys (no more than once every two years at the same enterprise). The survey diagnoses the level of employee satisfaction with various aspects of labor and identifies the most significant and most challenging aspects of work according to employees. The survey uses the methodology of the Stockholm School of Economics based on the Employee Satisfaction Index (ESI) model, which is widely used in Europe and in Russia.

Interaction with indigenous minorities on land use and activities in the territories of traditional lifestyles

We share the principles enshrined in the UN Declaration on the Rights of Indigenous Peoples, the UN Global Compact and the Resolution of the World Conference on Indigenous Peoples, and are committed to ensuring a harmonious balance between the economic activities of LUKOIL Group entities in the territories of indigenous minorities of the North and the latter’s interests in preserving their traditional lifestyle and economic activity.

1 Including: LUKOIL-BULGARIA EOOD (Bulgaria), LUKOIL MID-EAST LIMITED (Egypt), Perm Branch of LLC LUKOIL-Engineering PermNIPIneft, LUKOIL Uzbekistan Operating Company (Uzbekistan), LLC LUKOIL-Volgogradneftepererabotka, LLC LUKOIL-Permnefteorgsintez, LLC LUKOIL-AERO, LLC LUKOIL-Uralnefteprodukt, LLC LUKOIL-Nizhnevolzhskneft, LLC LUKOIL-Yugnefteprodukt, LLC LUKOIL-Engineering.
Indigenous minorities of the North live in four regions of our operations: the Khanty-Mansi Autonomous Area – Yugra, the Yamal-Nenets Autonomous Area, the Nenets Autonomous Area and the Krasnoyarsk Territory. LUKOIL’s operations are historically associated with the territories inhabited by the Khanty and Mansi, the indigenous people of Siberia. Thus, the system of relations with the indigenous minorities of the North began to take shape from the very outset of the Company’s activity.

In Russia, subsoil use, including the allocation of land plots in traditional settlement areas and/or areas of economic activity of indigenous minorities of the North, is regulated by state authorities (under license agreements or other documents that entitle companies to use such subsoil sites). The terms and conditions of the use of licensed areas, including providing compensation to indigenous communities, are established by federal and regional authorities. Hence, issues related to respect for the rights of indigenous peoples, including migration issues, are governed by Russian federal and regional legislation.

We fully comply with the conditions set forth in legislation, regularly interact with representatives of indigenous communities, and take their opinion into account when planning and implementing exploration and production projects. The company seeks to avoid involuntary relocation of people living on the territory of traditional natural resource use. The company applies the Free and Prior Informed Consent principle and seeks to minimize the consequences for those affected by such measures.

In the reporting year, in the course of LUKOIL Group’s production activities in areas of traditional settlement and/or economic activity of indigenous minorities in the North, no forced resettlement of indigenous peoples and no complaints regarding the violation of the indigenous minorities’ rights by LUKOIL Group entities were registered. Compensation is annually paid to indigenous people: under license obligations in the territory of the Khanty-Mansi Autonomous Area – Yugra (where LUKOIL-Western Siberia, RITEK and LUKOIL-AIK operate) and under agreements with reindeer farms in the territory of the Nenets Autonomous Area (where LUKOIL-Komi operates).

The Company engages representatives of indigenous minorities to participate in decision-making on projects that affect their rights (Articles 27–29 of the Declaration on the Rights of Indigenous Peoples). In particular, in order to obtain a preliminary freely informed consent of the indigenous peoples’ representatives, meetings are held at various stages of project implementation: public hearings prior to project implementation (in accordance with the legislation of the Russian Federation), and information events as projects are implemented.

In general, interaction with indigenous minorities of the North is carried out within the framework of federal and regional legislation of the Russian Federation, licensing obligations of LUKOIL Group entities, as well as federal and regional programs to support indigenous peoples. The following mechanisms are used:

- economic agreements with the heads of areas of traditional resource use
- agreements on social and economic development with reindeer farms
- collaboration with indigenous community organizations
- support for specific projects through grant financing in the framework of the Competition for Social and Cultural Projects of PJSC LUKOIL.

For more details on Company interaction with indigenous minorities of the North, see Engagement with local communities

With its wide presence in countries having different cultures and socio-economic patterns, LUKOIL Group uses a variety of methods for interaction with local communities to address emerging issues.

The Company strives to create conditions for unhindered contacts with local residents when implementing its foreign exploration and production projects as an operator. For example, a system of collection and response to complaints and queries was deployed in Uzbekistan. As part of exploration and production projects where the Company is a participant, the interaction with local communities is mainly the responsibility of the operator. LUKOIL informs local communities about its policies and responsible practices whenever required.

In Russia, a large number of events are held for residents of regions where human rights can be discussed, including public hearings, round tables, dialogues, visits to LUKOIL enterprises (for an example, see the “Komi Republic” case study). The practice of engaging in dialogue¹ has begun to be applied at the Romanian refinery as well.

¹ The region was called the Khanty-Mansi Autonomous Area in 1991.

² Dialogue (public dialogue) hereinafter in the Report is an in-person event with the participation of the Company and various stakeholders on a wide range of issues related to corporate social responsibility and sustainable development, in connection with LUKOIL activities in a particular region.
STAKEHOLDER ENGAGEMENT

The successful implementation of our strategic goals is facilitated by a relationship of trust with stakeholders, including state and local authorities, shareholders and investors, business partners and customers, workers and trade unions, Russian and international organizations, and society as a whole.

STATE LEGISLATIVE AND EXECUTIVE AUTHORITIES

We interact with state legislative and executive authorities of all levels in Russia and with local authorities in foreign countries.

In Russia, representatives of PJSC LUKOIL and LUKOIL Group entities take part on an ongoing basis in discussing legislative initiatives and in the work of advisory groups and expert forums, discussing issues that are topical for the Russian oil and gas industry. Management of PJSC LUKOIL and LUKOIL Group entities engages with the authorities as part of the upgrading of production facilities, signing and implementation of agreements on social and economic cooperation, as well as in regional and international forums.

Leveraging legal mechanisms guaranteeing stakeholder participation in the discussion of draft regulations, the Company participates in the creation of a modern, stable and healthy system of state regulation, using internal corporate processes for monitoring, evaluation, planning, etc.

LUKOIL liaises with regulatory bodies, public associations and non-profit organizations, and monitors regulatory and legislative activities in the Russian Federation on an ongoing basis.

SHAREHOLDERS AND INVESTORS

In order to increase the effectiveness of relations with shareholders the revised version of the Shareholder Relations Policy of PJSC LUKOIL was established by the decision of the Board of Directors of PJSC LUKOIL dated 11 December 2018 (Minutes No.17). The Policy, among other issues, states the principles of equal treatment of all shareholders, as well as the commitment to applying best practices of corporate governance. The observance of shareholders legitimate rights and mutual engagement in the benefit of sustainable and dynamic development of PJSC LUKOIL facilitates creating shareholder value and increasing the reputation of the Company.

Our investors comprise Russian and foreign entities and individuals pursuing various investment strategies. To strengthen investor relations and maintain the investment appeal of the Company, LUKOIL’s equity story is communicated to participants in the financial market, including the disclosure of requested information and targeted measures.

In order to attract additional investment in the Company’s equity, a shareholder analysis is conducted on an ongoing basis, and groups of investors with whom targeted measures will be carried out are identified. We continually strive to raise the level of information transparency, regularly provide information to representatives of the investment and financial communities using various channels, and react promptly to incoming queries.

In recent years, we can observe a marked upward trend in the number of responsible investors taking into account sustainability factors when making investment decisions. In this regard, cooperation with this group of stakeholders has been expanded (including the organization of meetings with independent members of the Board of Directors), information disclosure in public materials has been improved, and work on systemic issues of sustainable development has been enhanced.
We liaise with international rating agencies and information database owners; we also publish climate reporting as part of the Carbon Disclosure Project (CDP).

One of the key elements of interaction with the investment community is to ensure investor feedback for PJSC LUKOIL governing bodies and management. In response to incoming queries, the level of disclosure of information in financial statements, annual reports, sustainability reports and on the corporate website is constantly increasing.

The past year marked the hundredth anniversary of the International Labor Organization. Being ILO’s only partner in Russia, LUKOIL Group took an active part in the organization of the anniversary events. During the Russian hour of the 24-hour online video marathon, the President of PJSC LUKOIL Vagit Alekperov extended his congratulations on the ILO’s anniversary. Also, a meeting of Russian President Vladimir Putin with ILO Director-General G. Ryder was held where the contribution of LUKOIL Group to ILO activities in the Russian Federation was noted.

LUKOIL’s supply chain covers entities of various legal forms and sizes, from large companies and small and medium-sized businesses to individual and social entrepreneurs. We are open to cooperation and provide a level playing field. We perform impartial and effective selection of suppliers and contractors through tender procedures in key areas of the Company’s business.

LUKOIL has been collaborating with the International Labor Organization (ILO) and IndustriALL Global Union.

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LUKOIL is also a participant, organizer and sponsor of forums, specialized conferences, roundtables and other events where the Company can interact with other industry players and stakeholder groups noted above on a wide range of topics.
# Stakeholder engagement in 2019

## Stakeholders

### Events in 2019

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<th>STATE LEGISLATIVE AND EXECUTIVE AUTHORITIES</th>
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</thead>
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<td><strong>Legislative authorities of the Russian Federation</strong></td>
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<tr>
<td><strong>Regional authorities in the Russian Federation</strong></td>
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<tr>
<td><strong>Ministries of the Russian Federation, local authorities, international organizations</strong></td>
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</table>

### Event-related cooperation

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<thead>
<tr>
<th>STATE LEGISLATIVE AND EXECUTIVE AUTHORITIES</th>
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</thead>
<tbody>
<tr>
<td><strong>Standard-setting initiatives in the field of environmental protection covered issues of compensatory reforestation, emission credits, sanitary protection zones of industrial facilities, and carbon tax</strong></td>
</tr>
<tr>
<td><strong>Memorandum of cooperation with the Government of Stavropol Territory</strong></td>
</tr>
<tr>
<td><strong>Tripartite agreement between the Ministry of Sports of the Russian Federation, the Government of the Khanty-Mansi Autonomous Area – Yugra and PJSC LUKOIL on the construction of social and sports infrastructure in the territory of the Khanty-Mansi Autonomous Area – Yugra</strong></td>
</tr>
<tr>
<td><strong>Activities of LUKOIL Group entities</strong></td>
</tr>
<tr>
<td><strong>Issues of cultural identity and preservation of national languages in the regions of the Russian Federation</strong></td>
</tr>
<tr>
<td><strong>LUKOIL’s experience in the preservation and development of national languages of the indigenous minorities of the North</strong></td>
</tr>
<tr>
<td><strong>Diversity and preservation of languages of the Russian Federation’s ethnicities</strong></td>
</tr>
<tr>
<td><strong>Tourism development</strong></td>
</tr>
</tbody>
</table>
### SHAREHOLDERS AND INVESTORS

**Shareholders and investors**

More than 200 queries from investors and over one thousand of queries from shareholders were handled.

6 roadshows, 18 major investment conferences, over 180 meetings and 50 calls with investors were organized.

Quarterly conference calls regarding disclosure of the Company’s financial performance.

A trip for representatives of the investment community to the Nizhny Novgorod refinery was organized in the run-up to MARPOL-2020.

Two General Shareholders Meetings were held.

**Climate strategy and reporting**

**Measures to reduce emissions of greenhouse gases and pollutants**

**Oil spill management system and mitigation actions**

**Land remediation**

**Waste management**

**Human rights**

**Engagement with local communities**

**Anti-corruption**

### EMPLOYEES AND TRADE UNIONS

**International Labor Organization (ILO)**

24-hour online video marathon dedicated to the 100th anniversary of the ILO

Roundtable as part of the 74th session of the UN General Assembly (New York, the USA)

Exhibition dedicated to the anniversary of the ILO and its operations in Russia (Moscow, Russia)

Implementation of the ILO principles in the work of HR companies.

### SOCIETY

**Public authorities, expert and sectoral organizations, the mass media in Russia**

National Sustainable Development Forum (Moscow, Russia)

Corporate sustainable development practices, sustainable development programs of LUKOIL Group.

**Regional governments and industrial enterprises in Russia**

Technology Day in the Republic of Udmurtia (Izhevsk), Samara Region (Samara), Tyumen Region (Tyumen), Voronezh Region (Voronezh)

Encouraging regional industrial enterprises to participate in open tenders conducted by PJSC LUKOIL and LUKOIL Group entities. Exchange of experience and participation in events.

**Industrial Ecology-2019 conference** (Moscow, Russia)

Industrial ecology, the prospects for implementation of green economic models.

**Non-governmental and environmental organizations**

Meetings with representatives of the Pechora Rescue Committee, WWF Russia, etc.

Environmental conditions in the Komi Republic.

Implementation of the project to rescue the saiga antelope.
<table>
<thead>
<tr>
<th>SOCIETY</th>
<th>EVENTS IN 2019</th>
<th>EVENT-RELATED COOPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local communities and municipal authorities</strong></td>
<td>Roundtable «Sustainable Development of LUKOIL Territories» (Perm, Russia)</td>
<td>Presentation of LUKOIL Group Sustainability Report</td>
</tr>
<tr>
<td><strong>State authorities (Rostekhnadzor, Ministry of Emergency Situations), expert community (RSPP, Union of Oil and Gas Producers of Russia), non-governmental and oil and gas organizations</strong></td>
<td>Scientific and technology conference “Industrial and Occupational Safety at Oil and Gas Enterprises”</td>
<td>Corporate best practices in industrial safety, work quality and efficiency improvement</td>
</tr>
<tr>
<td><strong>Indigenous minorities of the North, authorities and non-governmental organizations of indigenous minorities of the North in Russia</strong></td>
<td>Meeting «Approval of the Procedure for Compensation of Damages Caused to Indigenous Minorities of the Russian Federation, Their Associations and Persons Belonging to Indigenous Minorities of the Russian Federation» (Kogalym, Russia)</td>
<td>Compensation of damages to the traditional habitat of indigenous minorities of the Russian Federation as a result of the business activity of companies and individuals</td>
</tr>
<tr>
<td><strong>Awards to the winners of the “Talents of the Arctic. Children” project (Moscow, Russia)</strong></td>
<td></td>
<td>The experience of PJSC LUKOIL was presented in the area of sustainable development, in particular supporting indigenous minorities of the North, Siberia and the Far East of the Russian Federation</td>
</tr>
<tr>
<td><strong>International organizations</strong></td>
<td>Official launch event of the International Year of Indigenous Languages (2019) at UNESCO Headquarters (Paris, France)</td>
<td>Culture preservation of indigenous minorities of the North</td>
</tr>
<tr>
<td><strong>Regional and local authorities, non-governmental organizations in foreign countries</strong></td>
<td>Public dialogue opened by the Romanian refinery (Ploesti and Bucharest, Romania)</td>
<td>Launch of the Competition for Social and Cultural Projects; the Company’s experience of holding the competition in Russian regions</td>
</tr>
<tr>
<td><strong>Authorities and non-governmental organizations in foreign countries</strong></td>
<td>RusPrix Award 2019 (Noordwijk, Netherlands)</td>
<td>Investment cooperation between Russia and the Netherlands, LUKOIL Group’s work in the Netherlands</td>
</tr>
<tr>
<td><strong>International Folklore Festival Burgas-2019 (Burgas, Bulgaria)</strong></td>
<td></td>
<td>Cooperation between Burgas and Kogalym</td>
</tr>
<tr>
<td><strong>Media</strong></td>
<td>Press releases, press conferences</td>
<td>LUKOIL Group strategy and production plans, developments in oil and gas industry regulations, social responsibility</td>
</tr>
<tr>
<td><strong>Scientific community</strong></td>
<td>Support for environmental and biodiversity projects and research in Russian regions</td>
<td>Scientific approaches to biodiversity conservation</td>
</tr>
</tbody>
</table>
SUPPLY CHAIN

LUKOIL Group entities procure a significant amount of goods, works and services and interact with a large number of contracting companies annually. At the same time, LUKOIL is also a supplier of goods to consumers based all around the world.

TENDERS

The selection of suppliers of goods, works and services in Russia is performed in accordance with the Regulations on Holding Tenders to Select Suppliers and Contractors of LUKOIL Group Entities (hereinafter, the Regulations) and is based on the principles ensuring competitive, unbiased and effective supplier selection. Foreign entities of LUKOIL Group modify the enterprise-wide documents to make them compliant with local laws.

In order to minimize risks, when choosing counterparties the Company is guided by the following criteria:

• criteria for evaluating the technical part of the tender offer include determining the reliability and experience of the bidder, as well as checking the conformity of the goods with technical requirements;
• criteria for evaluating the commercial part of the tender offer include determining the competitiveness of the tender offer.

As part of the development of green procurement practices, we collaborate with a foreign company, which is the world’s leading producer of energy efficient pumping equipment.

ANTI-CORRUPTION REQUIREMENTS

Under the Regulations, potential tender participants who, directly or indirectly, offer, have given, or agree to give compensation in any form to an employee of PJSC LUKOIL or LUKOIL Group entities cannot be admitted to tenders.

If any such facts are identified, potential tender participants can be classified as bad-faith suppliers of goods, works, and services. The decision to classify a potential tender participant in this category and disqualify it from a tender is made by the Tender Committee or the Procurement Committee of PJSC LUKOIL.

INDUSTRIAL SAFETY AND OCCUPATIONAL SAFETY REQUIREMENTS

If the subject of the tender requires the need to verify the state of the HSE system of a potential tender participant, experts from PJSC LUKOIL and LUKOIL Group entities perform a comprehensive assessment based on a corporate document1. The assessment procedure includes:

• checking for compliance with the international standards OHSAS 18001 and ISO 14001, Russian laws and internal regulations of PJSC LUKOIL;
• ascertaining whether potential tender participants possess necessary licenses, adequately qualified staff, personal protective equipment, and technical capability and technology.

BASED ON THE RESULTS OF 2019, THE SHARE OF RUSSIAN SUPPLIERS OF CENTRALIZED MATERIAL AND TECHNICAL RESOURCES STOOD AT

94%

IN TERMS OF THE NUMBER OF SUPPLIERS AND ROSE SLIGHTLY TO

94.8%

IN TERMS OF THE TOTAL VALUE OF PURCHASES IN RUSSIA YEAR-ON-YEAR.

1 Pursuant to the “Procedure for Assessing the Health, Safety, and Environment Level of Business Entities Intending to Participate in a Tender.”
2 The assessment of the candidates for contractors is performed in accordance with an internal regulatory document: Appendix 32 to the Regulations on Holding Tenders to Select Suppliers and Contractors of LUKOIL Group Entities approved by a Resolution of OJSC LUKOIL Management Committee dated 30 September 2013 (Minutes No. 19 as amended).
Interaction during the implementation of contracts

Under the terms and conditions of contracts to supply goods/works/services, all suppliers and contractors undertake to adhere to the requirements of current laws, as well as those of LUKOIL Group’s Health, Safety and Environment Policy in the 21st Century. The following requirements are an integral part of the contracts:

- undergoing introductory / initial workplace briefings before contractors begin the performance of works / provide services at LUKOIL Group entity’s facilities, the availability of personal protective equipment in accordance with the nature of the work being performed, confirming that suppliers / contractors have appropriate first-aid skills
- immediately notifying the customer of all accidents that have taken place during the performance of works
- prohibition on the unauthorized accumulation and placement of waste, the discharge of wastewater (liquid waste) and chemicals, the discharge of pollutants into the air, or the contamination of soil with chemicals while performing works at LUKOIL Group entity’s facilities.

Note. The information for 2018 is provided taking into account the application of a unified approach to selecting reporting data for 2018 and 2019, as well as the update of the corporate database of applicants participating in tenders of PJSC LUKOIL and LUKOIL Group entities in 2019.

2018

Total number of potential tender participants that submitted bids in tenders for the procurement of goods, works, and services (Russian entities of LUKOIL Group)

4,241

Including for tenders prescribing an HSE assessment

1,720

Percentage of the total number of potential tender participants that submitted bids

40.6

2019

3,330

1,465

44.0

Number of potential tender participants admitted to tenders based on the assessment results

1,579

Percentage of the total number of potential tender participants checked

91.8

1,352

92.3

IN 2019

92.3% of tender participants for whom HSE assessments were prescribed passed the comprehensive assessment procedure successfully.

The number of tender participants who successfully passed the HSE assessment procedure rose year-on-year, indicating an improvement in the quality of bids received.
When it comes to the carbon intensity of the Exploration and Production business segment, LUKOIL has already established itself as a leading company in this area in the oil and gas sector. To maintain this leading position, we are prepared to take further steps to reduce greenhouse gas emissions, and we have a clear vision on how to achieve this.

We are planning to set long-term goals to reduce greenhouse gas emissions, based on external changes and stakeholder requests. The Company also intends to perform an assessment of the impacts of climate change on its production facilities and infrastructure, especially in the Arctic and the permafrost zone.

The priority is to make changes to the corporate governance system, based on best global practices. LUKOIL already takes into account the climate factor when managing risks. We are also taking steps to provide more complete disclosures on greenhouse gas emissions in our public reporting.
WHAT IS LUKOIL’S CAPABILITY IN TERMS OF ADAPTING TO THE LOW-CARBON MODEL?

We are reducing carbon dioxide emissions and are seeing a very positive trend vis-à-vis reducing methane emissions, driven mainly by associated petroleum gas utilization and the implementation of the environmental program.

We have experience in implementing projects that are comparable to the practices of leading oil and gas companies, for example, in the area of renewable energy. Such projects are being implemented at the refinery in Volgograd, where a solar power plant has been built. In the future, we plan to roll out this experience across the Group. We also see new lines of business that can be developed, including technologies for absorbing and disposing of carbon dioxide and the construction of pumped-storage facilities, with priority given to projects with the greatest commercial potential.

In our opinion, an important component of low-carbon development is a system of compensatory measures, such as reforestation and forest management projects.

At the same time, there are a number of factors that may affect the future of the oil industry. Thus an ability to adapt to external changes, combined with a flexible strategic approach, are imperative in modern business.
KEY CHANGES AND RESULTS IN THE REPORTING YEAR


THE TASK OF DEVELOPING LONG-TERM GHG EMISSIONS REDUCTION TARGETS WAS SET.

IN 2019, METHANE EMISSIONS WERE REDUCED BY 45.6% AGAINST THE 2016 LEVEL IN RUSSIAN ENTITIES.

AN AVERAGE ANNUAL REDUCTION IN ENERGY CONSUMPTION FOR 2017–2019 AMOUNTED TO APPROXIMATELY 5 MILLION GIGAJOULES (GJ).

AS PER THE COMPANY’S ESTIMATES, ELECTRIC POWER GENERATION FROM RENEWABLE SOURCES HELPS PREVENT ABOUT 500 THOUSAND TONNES OF CO₂E PER YEAR OF GHG EMISSIONS.

SHARE OF ELECTRIC POWER GENERATION FROM RENEWABLE SOURCES IN 2017–2019 AVERAGED 6% OF TOTAL COMMERCIAL GENERATION.

EFFICIENT APG USE OF 97.6% WAS ACHIEVED BY LUKOIL GROUP ENTITIES.

IN 2019, DIRECT GHG EMISSIONS BY RUSSIAN ENTITIES WERE REDUCED BY 3.3% AGAINST THE 2016 LEVEL (SCOPE 1).
The climate change issue has dominated the social agenda for many years now, and in 2019 very close attention was paid to the problem. Climate change and environmental threats led the list in global risks for our planet. The climate change problem is of an obviously complex nature with a wide coverage and requires that efficient solutions be found to challenging tasks carrying long-term consequences.

Given the global nature of LUKOIL Group’s business, we are analyzing potential trajectories of the global climate agenda’s development to be able to make a sizable contribution to solving the climate change problem while ensuring our economic growth. We see not only risks resulting from global warming but also new business opportunities arising for LUKOIL Group.

Rising public activity

Despite efforts of the international community and growing investment in a low-carbon economy, extreme weather events and ever more evident climate changes continue to affect people’s lives and our planet’s health. An unprecedented burst of social activity that ultimately transformed itself into a Global Climate Strike Campaign testifies to an increased social comprehension of climatic effects and offers prospects of increased pressure on governments and GHG emitters.

The need to act immediately

Estimates show that nationally determined contributions will not be sufficient to reach the Paris Agreement’s primary temperature goal of limiting warming to well below 2°C pre-industrial levels.

Having achieved 55.3 Gt of CO₂ in 2018, GHG emissions continue to grow and there are no indications that peak values have been reached. Both the academic and expert communities demand that governments and countries take additional urgent climate protection measures and set more ambitious goals. Not only measures to reduce emissions are required but also technologies providing for a higher GHG absorption capacity.

Following the UN Climate Summit (COP 25), 121 countries set more ambitious national goals to reduce GHG emissions, and this may have an impact on the Company’s operations in those countries.

Role of the oil and gas sector

Slow rates of structural changes in the transport, power and utilities, agriculture, and manufacturing sectors that directly depend on oil and gas supply, as well as an extensive use of energy resources\(^1\), contribute to the acuteness of the climate issue.

After 2015, the rate of energy intensity reduction in national economies slowed down\(^2\): in 2018, only a 1% improvement was seen, while the energy efficiency growth rate is required to be 3% per year to reach the Paris Agreement’s goals. A more rational use of resources opens promising opportunities for both governments and companies.

Being the most affordable energy resources at the moment for the majority of countries, oil and gas are still in high demand. Until new technologies come to the required maturity, ‘old’ and ‘new’ power industry will develop on a parallel track, and this period may be used to fundamentally transform the oil and gas sector.

A progressive development of digital systems and technologies may become a source of new opportunities for the oil and gas sector, including in terms of reducing climate and environmental impacts. An essential transformation of the sector may ensure its climate neutrality in the long term.

Moderate optimism

Still, there has been progress after the signing of the Paris Agreement\(^3\). This shows that efficient solutions may be found and the situation may change for the better. LUKOIL expresses its support for the Paris Agreement’s goals and is now assessing its abilities to intensify efforts to achieve them.

However, successful efforts of individual countries, companies and projects cannot succeed alone\(^4\). The risk that collective actions prove to be insufficient increases the likelihood of a worse case scenario. To close the gap, significant investment is required, because a lot of new technologies are still at the early development stage and have not been adequately piloted yet. Therefore, it is highly likely that participation in joint projects\(^5\) will continue, thus opening new cost efficiency opportunities for the participating companies.

\(^{1}\) Source: https://yearbook.enerdata.ru/co2-fuel-combustion/CO2-emissions-data-from-fuel-combustion.html
\(^{2}\) Source: https://www.iea.org/reports/energy-efficiency-2018
\(^{5}\) Source: Resilience to Climate Change? A new Index Shows Why Developing Countries will be Most Effected by 2050. The Economist Intelligent Unit, 2019.
\(^{6}\) For example, Three Percent Club: https://sdg.iisd.org/news/global-coalition-commits-to-3-annual-global-increase-in-energy-efficiency/
Market mechanisms

One of the major uncertainties of the climate agenda is what global mechanism will be created to govern the sharing of emission reduction obligations.

Although no consensus on setting up a global market for allowances on GHG emissions was reached at COP25, measures for state regulation of climate change are being enhanced at the national level. Projections by price trajectories suggest their growth within various ranges. The requirements of the EU climate policy are expected to become even more stringent. In December 2019, as the European Commission has approved the European Green Deal, which aims for carbon neutrality by 2050.

The EU member states have announced the most ambitious plans to achieve net zero pollution by 2050. A reduction prospect in carbon emissions by 50–55% as early as by 2030 (instead of the current goal of 40%) is also being discussed. Measures required to achieve the stated goals are currently being analyzed, including the introduction of a cross-border import tax. However, experts anticipate difficulties in assuring that the new rules comply with WTO principles and free trade agreements.

In addition, “a fundamental reshaping of finance” is predicted to occur “sooner than most anticipate”. Investors are requiring that companies promptly respond to environmental changes, as the gap creates investment and economic threats. In these circumstances the climate agenda will become a determining factor of upcoming changes, and 2050 will most likely be a crucial year for GHG emitters.

A package of “Sustainable Finance” laws is now being passed in the EU. These laws are expected to significantly influence the finance sector as they will establish the criteria for environmentally and socially responsible economic activity. This will have a particular impact on investments in the fuel and energy complex.

Sources:
5. Sources: Center for European Reform https://www.cer.eu/insights/should-eu-tax-imported-co2; The World Economic Forum: https://www.weforum.org/agenda/2019/05/the-case-for-climate-tariffs/
6. Source: Larry Fink, Chairman and Chief Executive Officer of BlackRock, a major asset manager, in his annual letter to portfolio managers. https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter
9. A “carbon tax” is a fee imposed on the burning of carbon-based fuels (coal, oil, gas).
In 2019, Russia acceded to the Paris Agreement, becoming one of the parties establishing the global climate agenda and officially acknowledging the significance of collective efforts to tackle climate change challenges.

Russia is among the world’s five largest emitters of greenhouse gases, along with China, the United States, the EU and India. At the same time, Russia has substantial potential to mitigate a negative impact on the climate by enhancing its energy efficiency, taking measures to promote reduction of CO₂ emissions and forest restoration, and taking steps in other areas.

A National Action Plan for the First Stage of Adaptation to Climate Change for the Period up to 2022 was approved by the Government of the Russian Federation. Among other steps to be taken, strategic measures and plans for the fuel and energy complex and the Arctic Zone of the Russian Federation will be developed at the national level.

The 2019 debates of the draft Federal Law “On the State Regulation of Greenhouse Gas Emissions and on Amendments to Certain Legislative Acts of the Russian Federation” demonstrated that the legal framework in furtherance of restricting emissions and implementing economic mechanisms may be established only over a longer time frame. In March 2020, the Ministry of Economic Development of the Russian Federation elaborated a draft of Russia’s long-term low-carbon development strategy up to 2050, which presents the baseline scenario of low-carbon development. Three other scenarios – an intense scenario, an inertial scenario and a scenario of development without state support – are also considered.

LUKOIL is already taking decisions on the transformation of the system used to manage the climate issue, and is actively involved in identifying new ideas and opportunities, with national plans, GHG emission policy, and global best practices taken into account.

2. Sources: CO₂ absorption by the forests in Russia in the context of the Paris Agreement, WWF Russia, 2018; http://duma.gov.ru/news/45976/
APPROACHES TO MANAGING CLIMATE CHANGE ISSUES

During 2019, a notable progress was achieved in managing climate change issues at LUKOIL, a decision was made to integrate climate issues into LUKOIL Group’s Strategic Development Program.

MANAGEMENT SYSTEM

During 2019, a notable progress was achieved in managing climate change issues at LUKOIL, a decision was made to integrate climate issues into LUKOIL Group’s Strategic Development Program.

GOVERNANCE

The Board of Directors considered the issue of LUKOIL Group’s Climate Strategy. Expert discussion of the climate change topic as part of the Sustainability Task Force in consultation with Toby Gati, a member of the Board of Directors.

Plans:
• further enhancement of the climate change management system

STRATEGY

Implemented:
• scenario analysis of the influence of climatic factors on the Company’s business to 2030;
• analysis of the strategies of oil and gas companies

Plans:
• to develop long-term goals to reduce GHG emissions, with account taken of the Paris Agreement
• to evaluate GHG reduction potential.
The work will be supervised by Vagit Alekperov, President of PJSC LUKOIL.

RISKS

The Company has the Risk Management System in place, which also anticipates management of climate-related risks.

Plans:
• to implement the procedure for assessing climate change influence on production facilities and infrastructure

INDICATORS

Data related to GHG emissions is provided in the Sustainability Report, the Annual Report, The Data Book and the CDP.

Plans:
• to perform an extensive GHG emissions inventory
• to determine the reporting climate boundaries pursuant to the GHG Protocol1

1 The GHG Protocol (Greenhouse Gas Protocol, https://ghgprotocol.org/) is an international standard applied to account and manage GHG emissions from private and public sector operations, value chains and mitigation actions. The standard is a joint project of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).
In 2019, outstanding work was performed to shape the Company’s position on climate change issues. Two meetings of the Board of Directors were held (16 October 2019 and 13 January 2020) to address these issues. The key GHG emission points, factors driving emission dynamics, as well as opportunities to reduce GHG emissions in the long-term were discussed.

In December 2019, three development scenarios for the global energy system and the Russian oil and gas industry for the period up to 2035 and 2100 in terms of climate change issues were presented. At the meeting of the Board of Directors held in January, Leonid Fedun, Vice President for Strategic Development of PJSC LUKOIL, presented a report on climate scenarios and global trends in the climate agenda.

LUKOIL Group’s Climate Strategy will build upon its current experience in delivering low-carbon projects comparable with similar projects implemented by the leading oil and gas companies.

Our ambition for the future is to satisfy our customers’ demand for energy resources, while significantly reducing GHG emissions and preserving financial stability.

Further GHG emissions reduction goals are to be set and a related action plan is to be developed. It is our aspiration to actively participate in public debate over climate change issues and to interact with key stakeholders both in Russia and abroad.

**MANAGEMENT: ROLE OF THE BOARD OF DIRECTORS**

The Board of Directors set medium-term tasks, implementation of which will guarantee that the Company makes a solid contribution to the achievement of the UN SDG 13 and the Paris Agreement’s goals. The tasks set include the following among others:

- determination of the projected GHG emissions reduction level, along with the scope and content of compensatory measures;
- assessment of the impact of the climate change on production facilities and essential infrastructure, especially in vulnerable territories (the Arctic, permafrost), preparation of a list of facilities and territories falling within the scope of the assessment;
- incorporation of internal mechanisms designed to mitigate harmful impacts on the climate, stress testing of investment projects in terms of external regulating measures applicable to GHG emissions.

**AREAS FOR ACTION**

Current projects to reduce climate impacts

Low-carbon project areas under consideration

APG utilization

Efficient APG use of 97.6% was achieved by LUKOIL Group entities in 2019. Further work in this area will involve the implementation of projects as part of the World Bank and UN initiative “Zero Routine Flaring by 2030.”

Reducing GHG emissions at oil refineries

At our oil refineries projects to reduce carbon dioxide emissions into the atmosphere either are or will soon be under way. see the following case study on page 58

Greater energy efficiency

Owing to the use of secondary energy resources and the development of our own cogeneration facilities, the Company’s production needs are satisfied with no increase in direct GHG emissions, with reduced volumes of purchased energy resources and reduced indirect GHG emissions. The average annual reduction in energy consumption for 2017-2019 amounted to approximately 5 million GJ. Potential for further reduction in energy consumption is based on the implementation of investment projects at oil refineries focused on construction, equipment retrofitting and upgrading, as well as improving the efficiency of power generation facilities.

Renewable energy sector

The installed generating capacity of renewable energy sources rose to 395 MW. The share of ‘green’ energy generated in 2017-2019 averaged 6% of total commercial generation. According to Company estimates, power generation from renewable sources helps prevent around 500 thousand tonnes of CO₂ per year of GHG emissions. We are planning to proceed with RES projects both in Russia and abroad.

New areas

In addition to the areas noted above, we are seeking to utilize the most suitable CO₂ capture and storage technologies (CCS and EOR), find solutions designed to reduce natural gas and CO₂ emissions, and implement compensatory measures.
LUKOIL demonstrates a sustained upward trend in reducing GHG emissions and intends to continue active work to step up efforts in this area.

In 2019, the Company surpassed its direct GHG emissions reduction target for Russian entities by two percentage points - GHG emissions were reduced by 3.3% against the 2016 level. An upward trend in reducing GHG emissions was achieved even with the growth in hydrocarbon production and refining volumes at Russian entities observed since 2016 (+1% and +6%, respectively). In the 2019 reporting year, the Company committed to determining future GHG emissions reduction targets, with progress to be reported by the Company on a regular basis.

In 2019, direct GHG emissions amounted to 37.2 million tonnes of CO$_2$E, of which Russian entities accounted for 81%, and foreign entities for 19%.

The reporting boundaries include five power generation entities and one equipment operating company (LLC LUKOIL-ENERGOSETI), seven oil and gas producing entities, four oil refineries, one gas processing plant, two petrochemical plants, four oil product supply entities and one air bunkering entity, as well as four transportation entities.

In Russia, the main contribution (around 80%) to the total direct emissions is made by fixed fuel combustion sources. Flaring made up about 10% of the total emissions and was at the same level as emissions from production processes.

By virtue of projects on efficient APG use, methane emissions reduced almost twofold (45.6% against the 2016 level). Almost the entire volume (more than 90%) of methane emissions comes from oil and gas production processes (in the process of APG extraction, during preventive maintenance work on equipment and in cases of equipment failures).

LUKOIL Group entities that have a material impact through GHG emissions are included in the reporting: 29 Russian and four foreign entities (three oil refineries in Italy, Romania and Bulgaria, and one operating company in Uzbekistan).

In 2019, the data collection scope was defined more precisely. Unlike in previous years, emissions of natural gas used for LUKOIL-Komi’s in-house needs were taken into account in the reporting year, which had a significant influence on the dynamics of gross and specific indicators for exploration and production entities in Russia. Emission calculations for foreign entities included additional emission points of a power complex within a Romanian oil refinery (which became part of the refinery in 2019) and a catalytic cracking and reforming unit at a Bulgarian oil refinery (included as recommended by HSB Solomon Associated LLC according to the methodology applied).

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### Indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2016 (baseline)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUKOIL Group, including</td>
<td>38.02</td>
<td>37.85</td>
<td>36.44</td>
<td>37.22</td>
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<tr>
<td>1.1. Russian entities</td>
<td>31.29</td>
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<td>29.99</td>
<td>30.26</td>
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<tr>
<td>Exploration and production</td>
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<td>8.85</td>
<td>8.07</td>
<td>10.07</td>
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<tr>
<td>Oil processing and petrochemicals</td>
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<td>Electrical energy sector, including</td>
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<td>• LLC LUKOIL-ENERGOSETI</td>
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<td>1.49</td>
<td>1.42</td>
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<td>Transportation and sales</td>
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<td>0.09</td>
<td>0.09</td>
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<tr>
<td>1.2. Foreign entities</td>
<td>6.73</td>
<td>6.71</td>
<td>6.45</td>
<td>6.96</td>
</tr>
<tr>
<td>Exploration and production</td>
<td>NA</td>
<td>0.24</td>
<td>0.37</td>
<td>0.33</td>
</tr>
<tr>
<td>Oil processing and petrochemicals</td>
<td>6.73</td>
<td>6.47</td>
<td>6.08</td>
<td>6.63</td>
</tr>
</tbody>
</table>

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1. The reporting boundaries include five power generation entities and one equipment operating company (LLC LUKOIL-ENERGOSETI), seven oil and gas producing entities, four oil refineries, one gas processing plant, two petrochemical plants, four oil product supply entities and one air bunkering entity, as well as four transportation entities.

2. HSB Solomon Associated LLC (Solomon, https://www.solomononline.com/).

3. LLC LUKOIL-ENERGOSETI is a specialized service company that carries out activities not only in the transmission of electric energy, but also in the operation and repair of electric power equipment; maintenance of facilities for the production and transport of thermal energy, water supply and sanitation.
<table>
<thead>
<tr>
<th>Indicators</th>
<th>2016 (baseline)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tr>
<td><strong>2. Geography</strong></td>
<td></td>
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<tr>
<td>Russia</td>
<td>31.29</td>
<td>31.14</td>
<td>29.99</td>
<td>30.26</td>
</tr>
<tr>
<td>EU countries</td>
<td>6.73</td>
<td>6.47</td>
<td>6.08</td>
<td>6.63</td>
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<tr>
<td>Central Asia</td>
<td>NA</td>
<td>0.24</td>
<td>0.37</td>
<td>0.33</td>
</tr>
<tr>
<td>Share of emissions accounted for by countries where the regulation of GHG emissions has been implemented (Romania, Bulgaria, Italy), %</td>
<td>18</td>
<td>17</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td><strong>3. GHG composition (Russian entities)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Carbon dioxide, million tonnes of CO₂E</td>
<td>29.85</td>
<td>29.87</td>
<td>29.02</td>
<td>29.48</td>
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<tr>
<td>Methane, million tonnes of CO₂E</td>
<td>1.44</td>
<td>1.27</td>
<td>0.97</td>
<td>0.78</td>
</tr>
<tr>
<td>Share of methane, %</td>
<td>4.8</td>
<td>4.2</td>
<td>3.2</td>
<td>2.6</td>
</tr>
<tr>
<td>Other GHGs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>4. Specific GHG emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4.1. Specific GHG emissions in Russia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exploration and production, tonnes of CO₂E / tonne of oil equivalent in produced hydrocarbons</td>
<td>0.108</td>
<td>0.088</td>
<td>0.079</td>
<td>0.099</td>
</tr>
<tr>
<td>Processing, tonnes of CO₂E / tonne of processed raw materials</td>
<td>0.173</td>
<td>0.209</td>
<td>0.204</td>
<td>0.183</td>
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<td>Petrochemicals, tonnes of CO₂E / tonne of processed raw materials</td>
<td>0.352</td>
<td>0.370</td>
<td>0.322</td>
<td>0.301</td>
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<tr>
<td>Electrical energy sector¹ (tonnes of CO₂E / MWh of generated electrical and heat energy)</td>
<td>0.339</td>
<td>0.332</td>
<td>0.326</td>
<td>0.335</td>
</tr>
<tr>
<td><strong>4.2 Specific GHG emissions abroad</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exploration and production, tonnes of CO₂E / tonne of oil equivalent in produced hydrocarbons</td>
<td>NA</td>
<td>0.025</td>
<td>0.024</td>
<td>0.020</td>
</tr>
<tr>
<td>Processing, tonnes of CO₂E / tonne of processed raw materials</td>
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<td>0.339</td>
<td>0.319</td>
<td>0.333</td>
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<tr>
<td><strong>5. Specific methane emissions in Russia, tonnes of CO₂E/tonne of oil equivalent in produced hydrocarbons</strong></td>
<td>0.015</td>
<td>0.013</td>
<td>0.009</td>
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<td><strong>6. Total energy consumption (purchased and internally generated), million GJ</strong></td>
<td>NA</td>
<td>497.5</td>
<td>489.3</td>
<td>487.5</td>
</tr>
<tr>
<td><strong>7. Flaring emissions, million tonnes of CO₂E</strong></td>
<td>4.64</td>
<td>3.54</td>
<td>2.21</td>
<td>2.52</td>
</tr>
</tbody>
</table>

Notes. (1) GHG emissions by LUKOIL Group’s Russian entities were calculated in accordance with the calculation methodology prescribed by the Ministry of Natural Resources of the Russian Federation². Emissions by LUKOIL Group’s foreign entities were calculated in accordance with the national methodologies of the countries of operation. The indicator “Volume of direct GHG emissions” was checked as a part of the audit of the present Report (auditor - JSC KPMG). (2) The value presented in the “Share of emissions accounted for by countries where the regulation of greenhouse emissions has been implemented” line item is calculated as the ratio of GHG emissions released by European oil refineries (PETROTEL-LUKOIL S.A., LUKOIL Neftochim Burgas AD, ISAB S.r.l.) to the total GHG emissions released by LUKOIL Group. Information on LUKOIL Uzbekistan Operating Company LLC is not taken into account when calculating the above value, as no regulation of GHG emissions has been implemented in Uzbekistan at a national level. (3) Fluctuations in specific indicators for oil refining and petrochemical entities are due to changes in the production volumes of end products. (4) The figures for direct greenhouse gas emissions for 2016 are presented without taking into account data for LUKOIL Uzbekistan Operating Company LLC; for the period 2017-2019 boundaries are unified.

¹ The indicator excludes LLC LUKOIL ENERGOSETI (due to the specifics of the activity and the inability to bring the specific indicator to a single denominator) and LLC LUKOIL-EO (due to the «zero» volume of direct greenhouse gas emissions).
ENERGY CONSERVATION

KEY CHANGES AND RESULTS IN THE REPORTING YEAR

ENERGY CONSUMPTION FOR PRODUCTION PURPOSES IS REDUCED ON AVERAGE BY 1% PER YEAR FOR THE PERIOD 2017-2019

PILOT PROJECTS FOR THE CONSTRUCTION OF DIGITAL SUBSTATIONS ARE BEING IMPLEMENTED

THE ENERGY INTENSITY INDEX (EII) REDUCED BY 3.5 AS COMPARED TO 2014

1. Since 2014, the list of organizations covered by the study has changed; the boundaries of the study, starting in 2014, did not change.
### GOALS

The strategic goals and key activities to improve the energy efficiency in each business segment were determined.

LUKOIL Group’s Technical Policy on Energy Efficiency was approved by the Management Committee of OJSC LUKOIL on 26 March 2012.

### PRIORITIES/STANDARDS

The composition of process-related indicators, fuel consumption rates, etc., were formalized.

Seven corporate STO 1.20 standards.

Specific electric energy consumption per tonne of fluid produced (in the Exploration and Production segment). The Solomon Energy Intensity Index (EII). Energy intensity per tonne of basic raw material for entities in Petrochemicals business-sector.

The KPI regulations were approved by the Management Committee of PJSC LUKOIL on 16 September 2019.

### KEY PERFORMANCE INDICATORS

- **EII**
- Energy conservation program delivery.

As of 31 December 2019, 25 entities possessed compliance certificates covering 68% of the total LUKOIL Group headcount.

### CERTIFICATION OF THE MANAGEMENT SYSTEM

The Russian entities of LUKOIL Group implemented the ISO 50001:2011 compliant energy management system.

As of 31 December 2019, 25 entities possessed compliance certificates covering 68% of the total LUKOIL Group headcount.

### TARGETED PROGRAMS, PROJECTS AND INITIATIVES

The Energy Conservation Program of LUKOIL Group Entities for 2019–2021 in Russia.


### FURTHER INFORMATION

The examination of investment projects covers the evaluation of energy efficiency of business plans and related activities. The findings are considered in the general assessment of the project’s economic performance.

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1. The KPI relates to the Exploration and Production in Russia, Oil Product Supply in Russia, Transportation in Russia and Power business sectors, as well as to the following entities belonging to the Refining, Marketing and Distribution business segment: LLC LUKOIL-Trans, transshipment facilities and LLC LUKOIL-AERO.

2. The energy conservation program covers a 3-year period and is revised and approved by management of PJSC LUKOIL on an annual basis. The program for 2019-2021 was approved on 31 May 2018. During the previous reporting period, the program for 2018-2020 was in effect.
OUR GOALS

WE VIEW ENERGY EFFICIENCY IMPROVEMENT AS ONE OF THE KEY FACTORS IMPACTING THE ENERGY INTENSITY OF PRODUCTS AND LUKOIL’S ABILITY TO ADAPT TO GLOBAL CLIMATE CHANGE. RATIONAL USE OF ENERGY RESOURCES ENABLES THE REDUCTION OF GHG EMISSIONS. ENERGY EFFICIENCY IMPROVEMENT PLANS WILL BECOME AN INTEGRAL PART OF THE CLIMATE CHANGE STRATEGY AND WILL BE PRESENTED IN THE STRATEGIC DEVELOPMENT PROGRAM.

WE SEE THE POTENTIAL for further energy efficiency improvement through the implementation of the following measures:

- continuous improvement and performance optimization of the energy efficiency management system
- integration of innovative energy-efficient technologies and equipment across LUKOIL Group entities
- use of the demand management mechanism of LUKOIL Group entities, which implies re-distribution of electricity consumption relative to peak demand and allows for the elimination of additional electricity output
- securing the maximum return on LUKOIL Group entities’ investments in the long term through management of energy supply, conservation and efficiency management

- securing the efficiency of operating procedures and the functioning of process equipment across LUKOIL Group
- securing the effective use of fuel and energy resources across LUKOIL Group (electricity and heat, as well as boiler and furnace fuels)
- effective development and upgrade of energy assets of LUKOIL Group

OUR GOALS
MANAGEMENT SYSTEM CHANGES

Taking account of external environment changes and the introduction of many new technical solutions, in 2019 it was resolved to update the Technical Policy. The new version is expected to be completed in 2020.

As part of preparing for the re-certification of energy management systems of LUKOIL Group entities for compliance with a new version of the international standard ISO 50000:2018 “Energy Management System – Requirements with Guidance for Use,” five corporate standards were amended. The schedule of certifying LUKOIL Group entities according to this standard was approved.

The Set of KPIs was supplemented with a new indicator – “Delivery of the Approved Energy Conservation Program,” with reporting to be submitted starting in 2020. This indicator heightens the interest of senior executives in improving energy efficiency and energy conservation.

Further energy cost optimization plans include implementation of projects aimed at increasing the cost effectiveness and reliability of production facilities of LUKOIL Group entities. Significant new energy facilities are expected to be put into operation at fields in the Komi Republic; and two digital substations are being built in the Perm Territory.

ENERGY CONSUMPTION STRUCTURE

Oil and gas production companies account for the biggest share of energy consumption for production purposes across LUKOIL Group entities. Heat is primarily consumed by oil and gas producers, oil and gas refineries and petrochemical plants. Fuels are basically consumed by oil refiners, petrochemical plants and power providers.

Russian heat and power entities of LUKOIL supply electricity and heat to local communities and industrial enterprises in the south of Russia.

The oil refining complex ISAB in Italy operates an energy park composed of two blocks of combined cycle plants. In addition to natural gas, the energy park makes use of synthesys gas as fuel. Synthesys gas is produced by gasification facilities from asphalt generated as a by-product from deep oil refining. Electricity produced is mainly supplied to external consumers.

The oil refinery in Romania operates an energy park composed of a power boiler with the capacity of 185 MW and a turbogenerator with the capacity of 30 MW. The power boiler is made using the circulating fluidized bed technology that is the most advanced technology for solid fuel-fired boilers. Oil coke as a by-product of deep oil refining is used as a fuel. The power produced is primarily consumed for oil refinery process needs.

TARGETED PROGRAM

Russian entities run the Energy Conservation Program of LUKOIL Group entities aimed at improving the energy efficiency of power and fuel and at loss reduction. The program covers activities carried out in entities of each business sector. A dedicated group of projects of the highest energy efficiency potential is highlighted. Such projects are included in roadmaps. For example, 76 highly effective projects are scheduled in 2020-2022 focused on refineries.

In 2019, program performance is achieved primarily by the following activities:

- For entities involved in production, the key energy conservation activities include the replacement of asynchronous motors with magnet motors (PMSM), making use of electric submersible pumps as drives. Pumps of the system which maintain the formation pressure are also being upgraded.

In 2019, 3,885 units of PMSMs were integrated. This initiative is implemented in order to enhance the energy efficiency of the operation of the mechanized well stock and as part of the strategy of replacing asynchronous motors with PMSMs across oil and gas production companies of LUKOIL Group. As estimated by the Company, the delivery of this strategy will reduce electricity costs of the mechanized well stock.

• Refineries carried out 132 activities intended to improve energy consumption and retrofitting.
• Power plants replace and upgrade their process equipment in order to increase the efficiency factor and shift heat loads from inefficient boiler stations which will subsequently be closed.

A good example is the project of decommissioning inefficient boiler stations and shifting heat loads to the source of combined heat and electricity generation – at the Astrakhanskaya CHPP. Implementing this project will allow reduction in the volumes of burning non-renewable types of fuel by 7 million cubic meters of natural gas per year.

RESULTS

Over the last three years, energy consumption for production purposes was reduced thanks to the completion of energy conservation activities.

The reporting boundaries cover entities of all business segments in Russia and abroad that involve energy consumption for production purposes. The oil refinery in Netherlands is excluded from these boundaries.

In general, the dynamics of power consumption for production purposes are accounted for by several factors. For oil and gas production entities, the construction of our own generating facilities allows for reducing purchases

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### Energy consumption for production purposes of LUKOIL Group entities from non-renewable sources and procurement, million GJ

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total energy consumption for production purposes, including:</strong></td>
<td>497.5</td>
<td>489.3</td>
<td>487.5</td>
</tr>
<tr>
<td>• purchased electric power for production purposes</td>
<td>64.1</td>
<td>61.9</td>
<td>58.7</td>
</tr>
<tr>
<td>• purchased heat power for production purposes</td>
<td>35.7</td>
<td>19.9</td>
<td>17.4</td>
</tr>
<tr>
<td>• boiler and furnace fuels consumption for production purposes</td>
<td>520.1</td>
<td>537.9</td>
<td>529.6</td>
</tr>
<tr>
<td><strong>power sales and supply, including:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• electricity</td>
<td>75.1</td>
<td>73.9</td>
<td>66.7</td>
</tr>
<tr>
<td>• heat</td>
<td>47.3</td>
<td>56.5</td>
<td>51.5</td>
</tr>
</tbody>
</table>

Note. (1) Power consumption for production purposes by LUKOIL Group entities = Electricity and heat purchased for production purposes + Consumption of boiler and furnace fuel - Quantity of electricity and heat supplied to third-party consumers, as well as residential electricity/heat consumption. (2) The 2017-2018 data regarding power consumption for production purposes is different from the Sustainability Report for 2018 due to changes to the reporting boundaries, in particular, the addition of the Power Generation business sector to the reporting boundaries. Moreover, after publishing the 2018 Report, values of fuel and energy resources consumption for production purposes of LLC LUKOIL-Nizhnevolskneft for 2018 were amended. (3) The method to calculate indicators was improved: all inputs and estimates were converted into GJ. In this regard, the 2017-2019 data was re-calculated. When converting data, the following factors under GOST R 51750-2001 were used: 1 thousand kWh = 3.6 GJ, 1 Gcal = 4.19 GJ, 1 tonne of oil equivalent = 29.3 GJ.

### Renewable energy (supporting generation) consumption for production purposes, million kWh

<table>
<thead>
<tr>
<th>Fuel type</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar power</td>
<td>1.5</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Note. (1) The 2018 data refers to LUKOIL Neftechim Burgas AD; the 2019 data - to LUKOIL Neftechim Burgas AD and PETROTEL-LUKOIL S.A. (starting from April 2019). (2) An increased consumption of power in 2019 was driven by the reorganization resulting in the transfer of the 9 MW solar power plant from S.C. LUKOIL ENERGY & GAS ROMANIA S.R.L. to PETROTEL-LUKOIL S.A. Starting from Q2 2019, this solar power plant supplies electricity for the operational needs of the refineries.
of power - notwithstanding an increased extraction of hard-to-recover reserves (HTR reserves) in the West Siberia and high-viscosity crude oil in the Komi Republic (which requires more heat), as well as a rise in water cut of wells in traditional production regions of West Siberia (which increases electricity consumption required to lift raw materials). In 2019, the specific electricity consumption indicator of Russian oil and gas production companies was 20.5 kWh per tonne of fluid produced, which is lower than the 2017-2018 indicator (20.6 kWh per tonne of fluid produced).

At Russian and foreign refineries, energy efficiency activities result in a considerable improvement of power consumption indicators: EII decreased by 3.5 percentage points against the 2014 level.

Specific power consumption at the refinery, GJ / tonne of manufactured products

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for LUKOIL Group, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Russian entities</td>
<td>3.7</td>
<td>3.7</td>
<td>3.4</td>
</tr>
<tr>
<td>• Foreign entities</td>
<td>3.3</td>
<td>3.5</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Notes. (1) Data for Russian plants is displayed subject to the volume of oil products supplied from other Group refineries in Russia for further processing. (2) Data is displayed subject to gas processing products (LLC LUKOIL-Permnefteorgsintez) and petrochemical products (LUKOIL Neftochim Burgas AD and ISAB S.r.l.). (3) Data on mini-refineries is not included in the calculation of indicators on specific energy consumption at refineries.

EII benchmarks for the sectoral development program for 2018-2027 were in effect.

In physical terms, the power saved is a significant resource for improving production performance.

Dynamics of Solomon EII as compared to 2014, %

<table>
<thead>
<tr>
<th>Year</th>
<th>EII</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>96.5</td>
</tr>
<tr>
<td>2016</td>
<td>98.8</td>
</tr>
<tr>
<td>2014</td>
<td>100</td>
</tr>
</tbody>
</table>

Power savings resulting from the implementation of the Energy Conservation Program of LUKOIL Group entities in Russia, million GJ

Total for 2017-2019

<table>
<thead>
<tr>
<th>Source</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>1.2</td>
<td>1.6</td>
<td>12.7</td>
</tr>
<tr>
<td>Heat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiler and furnace fuel</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. The EII index is calculated pursuant to the HSB Solomon Associated LLC methodology with the use of its own factors.
The Company’s objective in the field of renewable energy is to increase the competitiveness of LUKOIL Group through the achievement of sustainable development goals, of which implementation of renewable energy projects for the production of green energy is an integral part.

The key renewable energy tasks include:

• implementation of commercial RES projects, including with the involvement of government support1;
• reduction/prevention of GHG emissions; and
• synergy from the construction of RES facilities at existing oil and gas production plants and refineries.

Projects based on wind and solar plants are implemented to supply “clean” electricity to external consumers. A small portion of energy is used by LUKOIL Group entities to generate heat based on solar collectors and to produce electric power based on photoelectric modules.

In 2019, a significant investment project for the reconstruction of the Belorechenskaya HPP (Krasnodar Territory) was completed. The 48 MW plant uses a derivative scheme based on the difference in elevation between the Belaya and Pshish rivers. As part of the project, two hydroelectric units were fully replaced, and the rated capacity of each was increased from 16 to 24 MW. As a result, the service life of the hydropower plant was extended by 40 years, and its reliability and environmental safety were enhanced. The efficiency of using the water energy was increased due to the use of cutting-edge technologies. In addition, comprehensive measures to upgrade almost all auxiliary systems were taken. After the reconstruction, the net supply of environmentally friendly electric power at the plant will increase by almost 80% and constitute about 260 million kWh per year, which will prevent emissions of at least 130 thousand tonnes of CO₂ per year.

We intend to continue implementing “green” power projects. In the reporting year, the Company was developing prospective plans of implementing RES projects to be reflected in the Strategic Program of LUKOIL Group, as well as projects for the construction of SPP at the sites of the Volgograd Refinery and Saratov plant. The top-priority project is the construction of Volgograd SPP-2 with the capacity of 20 MW. The construction of the facility is expected to receive state support for generation by renewable sources (RES CSA).

We expect to perform FEED activities for the construction of a wind power plant with the capacity of 50 MW in the vicinity of the Tsimlyanskaya HPP (Rostov region), including wind monitoring, selection of sites and capacity supply options. Another proposed investment pattern is the upgrade and efficiency improvement of hydroelectric assets. Options of advancing the hydroelectric cluster in the vicinity of the Krasnopolyanskaya HPP are being examined, including projects to reconstruct a small HPP on the Beshenka river (up to 2MW) and build the Krasnopolyanskaya HPP-2 (up to 24 MW).

In order to develop renewable energy in Russia and provide the industry with qualified personnel, with the assistance of LUKOIL, the basic department “Renewable Energy Sources” was created at the Gubkin Russian State University of Oil and Gas.

1. Capacity supply agreement for qualified generating facilities based on renewable energy sources (RES CSA).
**Total volume and share of electric power generated from renewable sources across LUKOIL Group**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total electric power generation from renewable sources (commercial and supporting generation), million kWh, including:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- in Russia</td>
<td>812</td>
<td>1,161</td>
<td>880</td>
</tr>
<tr>
<td>- abroad</td>
<td>241</td>
<td>204</td>
<td>230</td>
</tr>
<tr>
<td><strong>Total commercial electric power generation from renewable sources, million kWh, including:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- wind power</td>
<td>228</td>
<td>192</td>
<td>218</td>
</tr>
<tr>
<td>- solar power</td>
<td>12</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>- hydroelectric power</td>
<td>813</td>
<td>1,156</td>
<td>868</td>
</tr>
<tr>
<td><strong>Total electric power produced by commercial generating facilities of LUKOIL Group, million kWh</strong></td>
<td>20,189</td>
<td>19,919</td>
<td>18,307</td>
</tr>
<tr>
<td>Share of commercial electric power generation from renewable sources in total electric power produced by commercial generating facilities of LUKOIL Group, %</td>
<td>5.2</td>
<td>6.9</td>
<td>6.0</td>
</tr>
</tbody>
</table>

*Note: Dynamics of electric power generation from RES indicators is conditioned upon changes to environmental conditions (water content of rivers, number of sunny/windy days, and other factors.), as well as upon HPP shutdowns for repair/reconstruction.*

**Share of income from sales of electric power from renewable sources, %**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.5</td>
<td>10.5</td>
<td>11.7</td>
</tr>
</tbody>
</table>

*Note: The “share of income” indicator was determined by the correlation between income gained from sales of electric power from renewable sources and the total income from sales of electric power produced by commercial generating facilities of LUKOIL Group.*

**Investments in RES advancement, RUB million**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>487</td>
<td>2,580</td>
<td>526</td>
</tr>
</tbody>
</table>

*Note: The investment details refer to LLC LUKOIL-Ekoenergo and LLC LUKOIL-Volgogradenergo. Increased investments in 2018 were driven by attributing the costs of acquiring a solar power plant for the Volgograd Refinery to the reporting year and by the rise in expenses on the reconstruction of the Belorechenskaya HPP.*

In 2013-2015, the state system for incentivizing the construction of RES power plants was formalized and put into operation in Russia. Pursuant to Federal Law No. 35-FZ on the Electric Power Sector, the key instrument to support RES projects in the Russian Federation is the conclusion of long-term 15-year electricity and capacity supply agreements providing for preferential rates. The base rate of return for investors was established (12% for the reporting year).

The rules for supporting RES projects at energy retail and wholesale markets vary. The wholesale market support system is the key driver for enhancing the renewable energy sector in Russia. Projects of wind and solar power plants with the capacity of over 5 MW, as well as small hydroelectric plants of up to 25 MW are selected on an annual basis. The key selection criterion is the minimum amount of full CAPEX. After the selection, a capacity supply agreement is concluded with the investor. The generating RES facility shall supply all electricity produced to the wholesale electricity and capacity market of Russia at market prices. LUKOIL is a participant in this program.
REDUCTION OF EMISSIONS

At this stage, the key contribution to the reduction of GHG emissions is through the implementation of projects for the efficient use of APG at oil and gas producers in Russia.

In order to reduce APG flaring, Russian entities have been implementing a program to expand efficient use since 2003, covering the activities for the construction of new facilities and the reconstruction of older facilities for APG preparation, transportation and processing.

APG is used for injection into formations to maintain formation pressure and to generate heat and electricity for consumption by oil and gas producers, as well as delivered to gas refineries and supplied to gas distribution systems of other entities.

The construction and reconstruction of facilities allow increasing the APG use as a raw material for power and petrochemical plants and as a product supplied to external consumers. The selection of economically viable APG use options depends upon the conditions of specific fields, the composition of raw materials, availability of the gas transportation and processing infrastructure, as well as upon the distance to target markets. In general, deep APG processing is considered to be most cost-effective for sufficient production volumes.

In 2019, nine projects for the construction and reconstruction of facilities for efficient APG use were completed in the Perm Territory, the Komi Republic, the Khanty-Mansi Autonomous Area – Yugra and in the North Caspian. The summary effect from APG flaring reduction activities made up 27.2 million cubic meters.

LUKOIL was the first Russian oil company to join the World Bank’s initiative for zero routine APG flaring by 2030 (announced in 2015), which combines the efforts of governments, oil companies and public organization to increase APG useful life. The initiative covers two projects in the Perm Territory and the Khanty-Mansi Autonomous Area – Yugra entailing expected reduction of GHG emissions of about 105 thousand tonnes of CO₂E by 2022.

The Perm Territory is implementing an investment project for the construction of a system to collect and transport APG from the Zhilinskoye, Belskoye and Rostovitskoye fields. In 2019, construction and installation work was performed at the following facilities:

- Zhilinskoye–Chashkino gas compressor station (GCS) gas pipeline, a receiving separator at the Chashkino GCS;
- Chashkinskaya gas turbine electric power station (GTEPS) with the capacity of 16 MW (4x4 MW), a 6 kW distribution substation, a block gas preparation unit and a booster pump station;
- 6 kW cable line to connect the 16 MW EGTS to the 110/35/6 kW Chashkino substation and electricity supply to the grid;
- 35 kW air line connecting the 110/35/6 kW Chashkino substation with the 35/6 kW Zhilinskaya substation; and
- 35/6 kW Zhilinskaya substation.

During the preparation of this Report, startup operations were underway at those facilities. The commissioning of all facilities under this project is scheduled for 2020. As a result, the conditions for the efficient APG use of up to 47 million cubic meters per year will be created, and oil production facilities of OGPW-12 will be provided with their own electricity.

The Khanty-Mansi Autonomous Area – Yugra continued implementing the project for the reconstruction of the Povkhovskaya compressor station with an annual capacity of 600 million cubic meters: the tender

1. The program covers a 3-year period and is revised and approved by management of PJSC LUKOIL on an annual basis. The program for 2019-2021 was approved in 2018. During the previous reporting period, the program for 2018-2019 was in effect.
was held to source the contractor, and the agreement for supplying equipment (three compressor units) was concluded.

In general, the APG flaring volume has almost halved over the period 2017–2019. The indicator boundaries cover Russian exploration and production entities and foreign entities LUKARCO B.V. (in proportion to the share in the Tengiz project in Kazakhstan) and LUKOIL Overseas Kumkol B.V. (in proportion to the share in the Kumkol project in Kazakhstan). In Egypt and Iraq, the entire volume of APG produced is contractually owned by the host countries.

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total volume of APG (hydrocarbon) flaring across LUKOIL Group, million cubic meters, including:</td>
<td>574.867</td>
<td>328.377</td>
<td>309.534</td>
</tr>
<tr>
<td>• Russian entities</td>
<td>555.327</td>
<td>312.925</td>
<td>298.933</td>
</tr>
<tr>
<td>• Foreign entities</td>
<td>19.540</td>
<td>15.452</td>
<td>10.601</td>
</tr>
<tr>
<td>Level of APG use across LUKOIL Group, %, including:</td>
<td>95.4</td>
<td>97.4</td>
<td>97.6</td>
</tr>
<tr>
<td>• Russian entities</td>
<td>95.2</td>
<td>97.3</td>
<td>97.5</td>
</tr>
<tr>
<td>• Foreign entities</td>
<td>97.6</td>
<td>98.1</td>
<td>98.9</td>
</tr>
</tbody>
</table>

Financing of APG use activities, RUB billion

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total across Russian LUKOIL Group entities</td>
<td>15.0</td>
<td>8.4</td>
<td>10.4</td>
</tr>
</tbody>
</table>

Note. The indicator covers the expenses on the construction and reconstruction of APG preparation, transportation and processing facilities, as well as heat and electric power generation facilities in Russia. The change of the indicator is accounted for the completion of the plan of key activities under the effective APG use program. For examples of such activities, see the 2019 Annual Report, page 80.

**REDUCED GAS LEAKS DURING REPAIRS**

We strive to minimize natural gas leaks into the atmosphere caused by scheduled repairs and equipment failures at oil and gas producers.

In its efforts to identify such gas leaks, Russian LUKOIL Group entities are governed by regulations, federal policies and procedures of the oil and gas sector, as well as by corporate standards.1

Production facilities make use of mobile and standalone gas leak controls. In the follow-up of the audit and diagnostics, repair works at gas transportation pipelines and gas collection and compression facilities (compressor stations) are scheduled. The audit and diagnostics of equipment are conducted on a regular basis.

WHAT STEPS DOES THE COMPANY TAKE TO IMPROVE ITS SAFETY CULTURE?

Ensuring safe working conditions and reducing injuries are the Company’s key priorities. LUKOIL is implementing best practices in workplace safety, with the use of state-of-the-art technology. The Company’s management places a great focus on these matters, with PJSC LUKOIL’s representatives taking part in Safety Days and visits of the leaders. Direct engagement between management and employees helps improve motivation levels and raises the effectiveness of scheduled activities.

We have begun to make active use of new types of equipment, such as the Mobile Inspector software and hardware system, and conduct video surveillance of hazardous facilities. The Safety Culture 4.0 mobile app has been developed by the Company’s specialists.

We engage closely with our contractors’ representatives and workers on these matters, and invite them to participate in our safety culture events and to share best practices. Respective incentives have been also introduced. We hope that these measures will help to further bolster the culture of safety at the Company’s entities.
The year 2019 was dedicated to setting up the Information Security (IS) Management Center, in order to safeguard the security level of information assets. We combined the processing of related events and responses to threats in a Corporate monitoring center.

We implement measures to mitigate sanction and other risks related to natural and man-made disasters, failures in engineering and telecommunications networks, and disruptions to external supply chains. The level of automation of security operations is improving.

The Single information space (SIP) - a complex of basic IT-services providing secure user operations in the corporate calculating network and protected access to corporate information resources - is developing.

SIP will enable a corporate user from any point of the globe to access the relocatable Digital workplace at any time. Lukoil Technology Services GMBH launched pilot project on its implementation in 2019. This allowed a prompt switch to remote working conditions taking into account IS requirements during the pandemic.

Alexander Podolsky
Head of the Information Technology Department of PJSC LUKOIL
KEY CHANGES AND RESULTS IN THE REPORTING YEAR

OVER THE PAST FIVE YEARS, A SUSTAINED TREND TOWARDS REDUCTION IN ON-THE-JOB INJURY RATES HAS BEEN SEEN AT BOTH LUKOIL GROUP ENTITIES AND CONTRACTOR ORGANIZATIONS.

THE LOST TIME ACCIDENT FREQUENCY RATE (LTAFR) REMAINED LOW.

NEW DIGITAL SAFETY CULTURE TOOLS WERE IMPLEMENTED.

CONTEXT: OCCUPATIONAL AND INDUSTRIAL SAFETY

Occupational safety makes an important contribution to achieving Sustainable Development Goal 8 (promote inclusive and sustainable economic growth, employment and decent work for all), specifically, to fulfilling Target 8.8 (to protect labor rights and promote a safe and secure working environment for all workers).

According to ILO\(^1\), over the last 100 years notable progress has been made globally in developing approaches to promote safe and secure working environments. The number of occupational accidents has declined and working environments improved owing to an ongoing identification and mitigation of work-related hazards.

Nevertheless, the challenge of creating safe and secure working environments for all remains important. According to an ILO Report\(^2\), of 18 exposures measured between 1990 and 2016 only occupational exposure to asbestos had fallen while all other exposures increased by almost 7%. At the same time, the world of work is undergoing profound changes as a result of new technologies, changing demographics, and climate change, all of which create new challenges, as well as opportunities.

- The emergence of Artificial Intelligence (robotics), mobile devices and an opportunity to remotely manage production processes removes workers from hazardous workplaces and reduces the likelihood of occupational illnesses. Still, injury risk may rise due to the specific features of human-AI interaction and human contact with the equipment used by robots. The risk of marked growth in cognitive overload is set to increase and can have significant effects on workers’ psychological and social health.
- Automation is unlikely to replace most occupations entirely but instead will change the type and number of human tasks. Mobile (wearable) smart devices to improve workplace factors (to help monitor air quality and levels of workers fatigue, etc.) are increasingly used. However, those using such smart devices on a regular basis may lose the ability to autonomously make the right decisions on their own.
- In the long run, climate change will be a major driver transforming the world of work. It is estimated that a projected increase in global temperature of 1.5°C by the end of the twenty-first century, will cause total work time to decrease by 2 per cent by 2030 because it will be too hot to work. This will represent a loss of 72 million full-time jobs.

The Report stresses the need for active participation by governments, employers and workers, and all other stakeholders to seize the opportunities to create a safe and healthy future of work for all.

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\(^1\) Sources: Safety and health at the heart of the future of work, ILO, 2019.

\(^2\) Ibid.
INTEGRATED HSE MANAGEMENT SYSTEM

According to its corporate policy, LUKOIL is guided by principles aimed at creating safe working conditions, protecting the health of its employees and people in the regions where LUKOIL Group is present, as well as ensuring the efficient use of natural resources drawing on the best available technologies to preserve the environment.

The Integrated System of Management of Industrial, Fire, Radiation Safety, Emergency Prevention and Liquidation, the Protection of Civilians, Occupational Safety and Environmental Protection (hereinafter, the Integrated HSE Management System) has been in effect in LUKOIL Group for over 20 years. The Integrated HSE Management System provides for the identification and management of risks and environmental issues, and a risk-oriented approach is applied to system planning, introduction of changes and implementation of cutting-edge technologies.
### ELEMENTS OF THE MANAGEMENT SYSTEM

<table>
<thead>
<tr>
<th>GOALS</th>
<th>PRIORITIES/STANDARDS</th>
<th>RISK MANAGEMENT</th>
<th>COMMUNICATIONS WITH TRADE UNIONS</th>
<th>KEY PERFORMANCE INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The corporate policy establishes strategic goals, principles and obligations underlying the development of targeted programs and action plans integral to each program.</td>
<td>Corporate standards are applicable to all LUKOIL Group entities.</td>
<td>The Material HSE Risks Register and the Material Environmental Issues Register are updated on an annual basis. These Registers are analyzed by the HSE Committee of PJSC LUKOIL and approved by the First Executive Vice President of PJSC LUKOIL.</td>
<td>An ongoing contact is maintained with authorized occupational health and safety representatives and trade unions.</td>
<td>The composite indicator “Ensuring the Required HSE Levels at LUKOIL Group Entities” comprises those related to occupational injuries and accident rates, and also the key environmental impacts (pollutant emissions and discharges, waste management).</td>
</tr>
</tbody>
</table>
As at 31 December 2019, certificates issued to 44 LUKOIL Group entities were in effect (covering 83% of total LUKOIL Group headcount).

The Integrated HSE Management System has been certified for compliance with the international standards ISO 14001 and OHSAS 18001 since 2001. Transition from OHSAS 18001 to ISO 45001-2018 is to start in 2020.

Targeted Programs, Projects and Initiatives:


The integrated HSE Management System is constantly improving. It is revised annually to accommodate improvements which are developed based on external audits and corporate control measures for compliance with the requirements of laws and corporate standards. The reporting preparation methodology and stakeholder engagement practices are also being continually revised.

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1 The targeted program covers a 3-year period and is revised and approved by the management of PJSC LUKOIL on an annual basis. The Program for 2019-2021 was approved in 2018. During the previous reporting period, the program for 2018-2020 was in effect.

2 Likewise.
Number of entities where audits of management systems were performed

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>External audits (for compliance with ISO 14001 and OHSAS 18001 standards)</td>
<td>20</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Internal audits (for compliance with corporate requirements)</td>
<td>26</td>
<td>27</td>
<td>23</td>
</tr>
</tbody>
</table>

Notes. External audits are conducted in a three-year cycle in accordance with ISO committee recommendations. During this period, all LUKOIL Group entities that are to be certified and in which certification or supervisory audits are conducted are audited.

Measures implemented as part of the targeted programs are funded and form an integral part of the LUKOIL Budget and the Investment Program. In addition, research projects are undertaken as part of the R&D program. During 2019, total HSE costs amounted to 0.6% of the Group's consolidated revenue.

Financing of HSE targeted and investment programs at LUKOIL Group, RUB million

<table>
<thead>
<tr>
<th>Programs</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Safety Program, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- capital costs</td>
<td>21,927</td>
<td>28,498</td>
<td>30,046</td>
</tr>
<tr>
<td>Industrial Safety Programs, Better Working Environment, Emergency Prevention and Response Program, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- costs to improve labor conditions and protect health, reduce occupational injury and occupational disease rates</td>
<td>6,789</td>
<td>4,946</td>
<td>5,281</td>
</tr>
<tr>
<td>- costs to reduce accident, incident, fire, and emergency risks</td>
<td>5,518</td>
<td>5,147</td>
<td>6,727</td>
</tr>
<tr>
<td>R&amp;D, experimental engineering, and scientific technical works in Russia, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- environmental protection</td>
<td>23</td>
<td>58</td>
<td>34</td>
</tr>
<tr>
<td>- industrial safety</td>
<td>17</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>54,759</td>
<td>45,702</td>
<td>47,968</td>
</tr>
</tbody>
</table>

Note. (1) When calculating costs at the foreign entities of LUKOIL Group, the 2018 currency exchange rate of USD 1 = RUB 63 and that for 2019 of USD 1 = RUB 65 was used. (2) Data on costs under the Environmental Safety Program for 2017 is only provided for Russian entities participating in the Program; data for 2018 and 2019 also includes costs at the foreign entities participating in the Program (15 entities in total, see Appendix 8 “Reporting Boundaries”). (3) The structure of the Industrial Safety Program costs has been amended to reflect the updated Program for 2020-2022. The program for 2020-2022 was approved in 2020. More details of the Program will be provided in the 2020 Sustainability Report. (4) The change in R&D project costs is driven by funding schedules of approved projects
OUR GOALS

To ensure an advanced level of industrial safety and labor protection is an overriding priority for the Company¹.

This goal is included in the LUKOIL Group’s Strategic Development Program. We are striving to comply with global best practices by achieving a low level of risks associated with accidents, incidents, fires, and emergencies at production facilities, labor injuries and occupational illnesses. An Integrated HSE Management System which functions sustainably is key to accomplishing this goal.

MANAGEMENT SYSTEM CHANGES

During 2019, we proceeded with preparations to adopt the new ISO 45001:2018 (in place of OHSAS 18001:2007 previously in effect). It contains up-to-date requirements for organizing the occupational health and industrial safety system providing for the expansion of the management perimeter. In particular, the standard prescribes that active engagement with employees and other stakeholders be put into practice, responsibility in contractor relationships be strengthened, and involvement of senior management be enhanced. A risk-oriented approach, preventive measures and actions, and a goal-setting exercise are of great importance.

In 2019, corporate standards used to govern contractor relationships, record and analyze incidents, occupational illnesses and workplace microtraumas, as well as the procedure for registering, warning about and investigating technogenic events were updated. Information about the new approaches is included on the agenda of LUKOIL’s Safety Days.

During internal audits, entities are evaluated for compliance with the new requirements. Transition to the new standard is scheduled to begin in 2020.

1 Road and vehicle safety aspects are viewed within the scope of personnel travel rules, as well as the rules of fuel trucking to petrol stations, and are factored in the corporate system of labor protection. The bulk of products is supplied to foreign and domestic customers through the transportation systems of Transneft and Russian Railways, as well as by marine and river tankers of third party carriers. LUKOIL does not possess to own rolling stock and tanker fleet.
LEADERSHIP AND SAFETY CULTURE

To enhance employee and management involvement, work on the implementation of leadership and employee engagement instruments was intensified in 2019. This approach helps to overcome resistance to change and tighten control over results.

Safety Days

The event is held on an annual basis and serves as an effective tool for exchanging experience and HSE best practices identified not only at LUKOIL entities but also by its strategic contractors. At the Safety Day held in January 2020, which was devoted to 2019 performance, the participants discussed both industrial and occupational safety issues and the increasingly stringent community requirements for oil companies in the area of sustainable development, climate change and environmental protection.

Leadership visits

As part of leadership visits, heads of business units of PJSC LUKOIL and LUKOIL Group entities evaluate the level of workplace safety at production facilities.

Digital technology

In addition to automation tools for routine procedures (electronic briefings and issuance of hazardous work permits), such tools as hazardous work video recording and a “Mobile Inspector” software and hardware system are being implemented at the Company’s facilities. A new, original “Safety Culture 4.0” mobile service was also developed.

“SAFETY CULTURE 4.0” MOBILE SERVICE

Today, the culture of safety cannot advance if modern technologies are not applied, for they simplify and accelerate employee training and awareness, on the one hand, and provide for an enhanced control over compliance with safety requirements and eliminate the human factor, where required, on the other.

Digital technologies (augmented reality and mobile apps to name but a few) hold great potential to influence human conscience and perception. Digital technologies are capable of changing human behavior at a far faster rate than traditional methods of persuading, thus reducing the human error factor in occupational injuries and accidents. Digital products cater to a wide range of workers and guarantee more solid performance. Owing to sharp visualization and a non-routine way of presenting information, they surprise and provoke interest, hold attention and ensure a higher level of mastery of material.

“Safety Culture 4.0” mobile service is a proprietary LUKOIL product that has already gained attention in the industry. Its concept is centered around a rapid integration of required data and knowledge into the work flow, including through the use of augmented reality. Using only a cellular phone, a worker may find a relevant document, get instructions on how to act in case of a non-routine event or render aid to a colleague in case of a workplace incident, when every minute or even second counts. Instead of reading a long text, it would not take more than a rapid glance at the display to take action. An emergency response rate may not only help preserve one’s health but may save lives as well.

All training services of this app are promptly updated in real time, all at the same time in all regions of the Company’s operations. By virtue of a shared mobile app service, the procedure for organizing leadership visits and notifying employees of the results has been simplified. One more useful (or motivating) function of the app is the ability to count accident-free days in the entity a worker where is employed and the possibility of benchmarking the indicator with the entire business sector entities. The pilot implementation of the project was completed; its replication at all Group entities is scheduled for 2020.

1 Safety Days are held in each LUKOIL Group entity at least once every six months.
Promotion through focused measures

Taking into account the styles of human perception of information, three main promotion techniques are used: visualization, communication and motivation. Visualization tools (e.g., a “Leader in Safety” logo printed on documents, work interruption and self-check records, accident-free counters, etc.) remind workers of the need to ensure behavior-based workplace safety at all times. For communication development purposes, materials and various safety-related media clips are posted and made available on the internal portal. Employees and teams with notable safety excellence performance are awarded marks of distinction and themed contest prizes.

Notifications and training

An extensive use of digital products, such as visualization of all incident case studies based on investigation reports, is also planned in this area. An interactive “Culture of Safety” training calendar is scheduled to be placed in facility workshops and group premises. The calendar will be brought in step with our “Safety Culture 4.0” mobile app and a built-in augmented reality service to transform the calendar into an annual training and notification system on all current safety issues. This technology was already used in management trainings; in 2020, sets of training materials have been developed and an annual “Management Leadership” training program has been launched.

Training performance

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of training on industrial safety and occupational health and safety for LUKOIL Group, person-courses</td>
<td>56,481</td>
<td>60,106</td>
<td>59,314</td>
</tr>
<tr>
<td>Industrial safety and occupational health and safety for LUKOIL Group – training costs (“Employee training and advanced vocational training”), RUB million</td>
<td>327.9</td>
<td>323.2</td>
<td>263.8</td>
</tr>
</tbody>
</table>

Notes. (1) The data includes actual information on in person and remote employee training. (2) The data on 2017–2019 training costs includes information on Russian entities, as well as on LUKOIL Uzbekistan Operating Company LLC and LUKOIL MID-EAST LIMITED.

Right to refuse life-threatening work

Employees have the right to refuse to perform their job duties if they consider it impossible to perform the work without endangering their lives or health. This right is enshrined in Clause 6.1.9 of the Agreement between the trade union and PJSC LUKOIL for 2015–2020 and the Key Rules of Safety when Staying at Facilities of LUKOIL Group Entities in accordance with STO LUKOIL “Leadership and Culture of Safety.”

Employee involvement

Through authorized occupational health and safety representatives and joint committees (commissions) for occupational health and safety, employees can propose measures to be taken to further safety. In 2019, the first training for authorized occupational health and safety representatives as part of a “Leader in Safety” program was undertaken. We plan to continue this practice, with such training to be held at least once a year.

For more information on the technical labor inspection of the IATUO of PJSC LUKOIL see:
OCCUPATIONAL SAFETY

The Company’s key priority is the preservation of life and health of its employees, as well as employees of contractor organizations working at LUKOIL facilities. Zero fatalities is one of the main criteria outlined in the “Required HSE Levels” KPI used in the financial incentivization system.

We regret to say that in 2019 the injury rate in Russia for LUKOIL employees increased on account of serious road accidents. There were four road traffic accidents that resulted in bodily injury or death, of which two were pile-up accidents. As a result, nine LUKOIL employees were injured and one employee killed in the car crash.

The second incident resulting in the death of our employee was an assault related to robbery at a fueling station in the Voronezh region. To reduce this risk in the future, a briefing for fueling stations personnel on emergency procedures in case of danger to health or life was held; measures to enhance remote monitoring of fueling stations are being considered.

Analysis of causes for other incidents showed they were primarily related to employee exposures to machinery and moving armatures; falling from high elevations and sustaining electrical shocks at electric power plants.

All incidents in 2017-2019 involving LUKOIL regular employees were fully investigated. At the time of this Report the investigation of a pile-up car accident on 3 December 2019 in LLC UralOil (the Perm Territory) was still in progress.

There were two incidents at foreign entities. At LUKOIL Romania S.R.L. a fuel station operator fell victim to third party criminal activity. At an Italian oil refinery, a worker sustained a leg injury. Following the investigation, the refinery service area was analyzed for compliance with safety requirements and appropriate measures were taken.

In case of safety incidents, measures set forth by laws of the countries where we are present and corporate standards are taken at all LUKOIL Group entities, including:

- real-time emergency warning of all injury incidents at the Company’s facilities, including injuries suffered by contractor employees;
- data logging in the “RISK-IS” corporate information system;
- investigation, analysis of facts, circumstances and causes of workplace incidents.

Findings of investigations are communicated to LUKOIL Group entities and business units of PJSC LUKOIL, considered at the meetings of the HSE Committee at the Board of Directors of PJSC LUKOIL, and included as part of Safety Days program with trade unions and key contractor organizations participating in it.

Findings of incident analysis, including at contractor organizations, are incorporated into an annual report to the Management Committee of PJSC LUKOIL on the HSE situation and considered at meetings of the Board of Directors.
Indicators related to occupational injuries at LUKOIL Group

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost time accident frequency rate (LTAFR)</td>
<td>0.20</td>
<td>0.20</td>
<td>0.19</td>
</tr>
<tr>
<td>Lost time injury frequency rate (LTIFR)</td>
<td>-</td>
<td>0.12</td>
<td>0.13</td>
</tr>
<tr>
<td>Rate of fatalities</td>
<td>-</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Rate of high-consequence injuries (net of fatalities)</td>
<td>-</td>
<td>0.03</td>
<td>0.05</td>
</tr>
<tr>
<td>Rate of registered occupational injuries or damage to health</td>
<td>-</td>
<td>0.15</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Notes. (1) The lower all indicators are the better. (2) The indicators (other than LTAFR) have been calculated since 2018. (3) The formulae used to calculate the indicators are provided in Appendix 7 “Reference Information: Abbreviations, Definitions and Calculation Formulae.”

Number of occupational accidents and employees injured in workplace accidents at LUKOIL Group entities

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of occupational accidents, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• fatal</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>• high-consequence work-related injuries</td>
<td>NA</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>• number of minor injuries</td>
<td>NA</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>• number of microtraumas¹</td>
<td>NA</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Number of employees injured in workplace accidents (total number of injuries), including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• number of fatalities (FA)</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>• number of lost time injuries (traumas) (LTI)</td>
<td>18</td>
<td>22</td>
<td>23</td>
</tr>
</tbody>
</table>

Note: If during the reporting period an employee suffered more than one injury, each case is counted as a separate injury.

¹ The term “microtrauma” is used according to the GRI definition.
The key areas for action to reduce occupational injury rates and prevent accidents, counting those in 2019, include:

- performance of scheduled measures as part of the OHS program;
- providing workers with efficient modern means of individual and collective protection;
- implementation of digital tools designed to prevent hazardous situations. For example, the video recording of high-risk work and complex change-over switchings for power generation specialists was organized, as well as a wider use of video briefings;
- organization of training sessions to raise employee awareness and drill technical skills. Examples of the measures are as follows:
  - obligatory mass training sessions using a distance learning system to master occupational safety and first aid in the workplace, in accordance with current legal requirements,
  - development of an employee self-tutoring and certification service on occupational safety issues,
  - performance of tests on knowledge of the Key Rules of Safety and local regulatory acts,
  - specialized training sessions for those working at hazardous facilities,
  - simulator sessions and drills concerning actions in emergency events,
  - trainings aimed at improving skills required to operate sophisticated equipment, and other types of training.
INTERACTIONS WITH CONTRACTORS

We realize our responsibility towards stakeholders and society as a whole and encourage our business partners to adhere to the environmental and social performance principles of our Company. For example, our standard contracts include provisions obligating contractors to follow the provisions set forth in the LUKOIL Group Policy on industrial safety, occupational health and environmental safety in the 21st Century.

The Company regularly reviews contractors in terms of compliance with occupational health and industrial safety requirements throughout the term of the contract. Thus, in 2019, as part of corporate supervision and production control in Russian entities of LUKOIL Group, over 7 thousand audits were conducted. Employees of counterparties were held responsible for the violations committed, and penalties were applied. Contractors took measures to eliminate and prevent violations in a timely manner.

We bolster interaction and cooperation with our contractors at the Company's facilities concerning occupational safety issues. For example, the employees of the Company's suppliers and contractors are trained in occupational and industrial safety issues and participate in Safety Days. This helps us advance our goal of reducing the occupational injury rate:

- by improvement of working conditions and occupational safety at LUKOIL Group entities, and, as a result, reducing of the level of injury rate and occupational illnesses;
- by reducing the risks of accidents, incidents, fires and emergencies at the facilities of LUKOIL Group entities.

The indicator “fatal accidents during the performance of contracting and subcontracting activities at the Group’s facilities” is included in the comprehensive KPI “Ensuring the Required HSE Levels at LUKOIL Group Entities,” which is taken into account in the motivation system.

Despite the measures we are taking, we have not yet succeeded in reducing the number of accidents year-on-year. The findings of our analysis of the respective indicators for the last 5-year period are indicative of an upward general trend (See the chart below on page 83). This result has to a great extent been achieved through our efforts to regularly inform contractors of safe work performance rules at LUKOIL facilities, the Key Rules of Safety and other local documents. Representatives of the key contractor organizations are invited to regular events aimed at improving the culture of safety, including Safety Days. We are committed to proceeding with this work in future.
### Indicators related to occupational injuries at contractor organizations in Russia and abroad

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total number of occupational accidents, including:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• fatal</td>
<td>7</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>• high-consequence work-related injuries</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Number of employees injured in workplace accidents (total number of injuries), including:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• number of fatalities (FA)</td>
<td>10</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>• number of lost time injuries (LTI)</td>
<td>15</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>
OCCUPATIONAL INJURIES AT CONTRACTOR (SUBCONTRACTOR) ORGANIZATIONS IN RUSSIA AND ABROAD

Dynamics of accidents among contractor organizations

All accidents at contractor organizations in 2019 were fully investigated, except for a group accident at LUKOIL-Komi (a fire at oil mine No. 1 on 24 November 2019); at the time of writing the Report the investigation was still ongoing. Information about the facts and circumstances and causes of accidents and preventive measures taken was communicated to LUKOIL employees and the representatives of contractor organizations.

The Safety Day agenda, dedicated to 2019 performance, had a particular focus on improving occupational safety at contractor and subcontractor organizations. Following discussions, Safety Day participants proposed the following solutions to improve the culture of safety:

- to proceed with gathering up best practices of collaboration among LUKOIL entities and contractors and subcontractors, and to implement these practices across all LUKOIL Group entities (and issue related charters as part of the Knowledge Management Corporate System).

- to organize interactive field trips to LUKOIL production facilities for contractor staff, so that they can best adapt to the specific working conditions.

- to continue to hold competitions to identify the best contractor organization in order to integrate partners into the LUKOIL-wide OHS system. Introduce an incentive scheme among contractors to encourage the implementation of best safe work practices.

The proposals were included in the summary document of the Safety Day and will be implemented.
OIL REFINING PLANTS BECAME PLATFORMS FOR THE IMPLEMENTATION OF THE 2019–2021 DIGITAL REFINING DEVELOPMENT PROGRAM, WHICH COMPRISSES 40 INITIATIVES AND 19 PROJECTS.

IN 2019 THE FOLLOWING PROJECTS WERE COMPLETED:

<table>
<thead>
<tr>
<th>ENTITY</th>
<th>PROJECT</th>
<th>OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIL REFINERY IN ROMANIA</td>
<td>Mobile Inspector</td>
<td>Most critical equipment monitored through walk-round checks with the use of instrumental control tools (vibrations, bearing temperature).</td>
</tr>
</tbody>
</table>
| VOLGOGRAD OIL REFINERY | Digital video surveillance and intelligent video analysis system | • Integrating the technological video surveillance system with a distributed processing facility control system;  
• implementing automatic algorithms of intelligent video data analysis for event identification purposes;  
• prompt and efficient automatic identification of non-routine events;  
• real-time distance monitoring of the condition of production equipment at the facilities. |
| OIL REFINERY PLANT IN BULGARIA | Monitoring and online diagnostic system | • Reduced instrumentation and automated control system maintenance costs;  
• reduced equipment failures;  
• predictable repair times / needs;  
• reliable production management and protection. |
THE FOLLOWING PILOT PROJECTS WERE PUT INTO OPERATIONAL TEST:

<table>
<thead>
<tr>
<th>ENTITY</th>
<th>PROJECT</th>
<th>OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLGOGRAD OIL REFINERY</td>
<td>Connected production</td>
<td>Implementation of the Process Insight Reliability Advisor system, to improve a vacuum gas oil hydrocracking unit’s operating reliability, production efficiency, and operational effectiveness.</td>
</tr>
<tr>
<td>PERM OIL REFINERY</td>
<td>Predictive analytics</td>
<td>Improving the availability of technological equipment through the reduction of unplanned maintenance. Identifying signs of early equipment deterioration by detecting changes in all streaming signals, which accurately indicate the date/time of a malfunction.</td>
</tr>
</tbody>
</table>
| NIZHNY NOVGOROD OIL REFINERY, OIL REFINERY PLANT IN BULGARIA | APC+ enhanced management systems | • Creating analogues of virtual analyzers, with enhanced accuracy and capability of operating without being readjusted over protracted periods.  
• Design of AI to predict future conditions of units.  
• Continued improvements to the unit optimization model in line with the target criteria set. |
HEALTH IN THE WORKPLACE

We endeavor to minimize conditions that may harm the health of workers. Our overriding priority is to provide high-quality and state-of-the-art individual personal protection equipment (PPE) that reduces the impact of harmful and dangerous workplace factors. This PPE is provided under the respective corporate standard, and its amount and variety exceeds statutory requirements.

Thanks to a well-developed medical service system comprising voluntary medical insurance programs and options to receive medical attention at local employee health centers in the event of emergencies, a high level of employee health is successfully maintained, and new occupational illnesses are registered only very rarely. No occupational illnesses were identified in foreign entities of the Company.

We have embarked on a large-scale modernization of corporate medical treatment facilities, including renovations and building facilities in Usinsk, Budyonnovsk, and Urai, modeled on the new clinics in Kogalym and Kstovo. Additional health centers with medical assistants and pharmacy branches have been established onsite.

In 2019 cardio check-ups of risk groups by age were performed and mobile teams of cardio specialists checked employees working in remote areas.

The oil mine operated by LUKOIL-Komi has long had the most complex working environment. The overall trend in recent years has been towards an increase in occupational illness numbers, which is primarily due to the age structure of the workforce. All cases were identified during medical check-ups, with some diseases being caught early, which is testament to the efficacy of medical screening. Employees with suspected occupational illnesses have in-depth check-ups at in-patient clinics; such check-ups are performed free-of-charge and are financed through public contracts.

Priority areas for taking measures to reduce the occupational illness rate at LUKOIL-Komi include:

- technical protection of workers from work-related exposure through the use of new technologies, equipment, and effective means of personal and collective protection (acoustic absorption equipment, protective hand equipment, etc.)
- employee timesheets for vibrating tool operations, with subsequent registrations in log books.
- a medical program to prevent occupational illnesses and follow-up observations of workers in risk groups.
- in-depth check-ups of employees engaged in underground operations, as well as those who are frequently and chronically ill, by experts from leading Moscow healthcare institutions.
- evaluation of the quality of health check-ups.

As part of promoting the development of the Yaregskoye field, the use of small mine shafts where more favorable working conditions can be ensured is under consideration.

Number of LUKOIL-Komi workers with newly diagnosed occupational illnesses, people

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Occupational illness dynamics of Russian LUKOIL Group entities

<table>
<thead>
<tr>
<th>Occupational disease rate (ODR)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per 1,000 workers</td>
<td>0.06</td>
<td>0.19</td>
<td>0.13</td>
</tr>
<tr>
<td>per 1,000,000 man-hours</td>
<td>NA</td>
<td>0.11</td>
<td>0.08</td>
</tr>
</tbody>
</table>
PIPELINE RELIABILITY AND EMERGENCY PREPAREDNESS

KEY CHANGES AND RESULTS IN THE REPORTING YEAR

- **The specific coefficient of pipeline failure reached the minimum value for the period 2016–2019 of 0.081 cases per 1 km of pipelines per year.**

- **The share of corrosion-resistant pipelines (excluding inhibitor protection) rose to 30.4% (2016: 23.6%).**

- **A rapid repair technology for offshore pipelines was acquired and tested successfully.**
<table>
<thead>
<tr>
<th>ELEMENTS OF THE MANAGEMENT SYSTEM</th>
<th>DESCRIPTION</th>
<th>DOCUMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OBJECTIVES</strong></td>
<td>The Company’s policy related to improving the functional reliability of pipeline transport is governed by legal requirements and corporate standards.</td>
<td>Russia: Federal Law No. 116-FZ “On the Industrial Safety of Hazardous Production Facilities,” “Rules for the Safe Operation of In-Field Pipelines” (approved by Rostekhnadzor Order No. 515 dated 30 November 2017); other federal regulations and rules on industrial safety</td>
</tr>
<tr>
<td><strong>PRIORITIES/STANDARDS</strong></td>
<td>Our priority is to adopt an integrated approach to the safe operation of pipelines: inhibitor coating, the introduction of corrosion-resistant pipes, timely diagnostics, and the prompt elimination of detected defects.</td>
<td>Corporate regulations (STO LUKOIL 1.19.1-2012; 1.19.2-2013 and 1.19.3-2013)</td>
</tr>
<tr>
<td><strong>INDICATORS</strong></td>
<td>The pipeline failure rate for oilfield pipelines, number of failures per 1 km per year.</td>
<td>Resolution of the Network Group “Improvements to the Oilfield Pipe and Tubing Reliability Network Group” (hereinafter Network Group)</td>
</tr>
<tr>
<td><strong>SYSTEM IMPROVEMENT</strong></td>
<td>The key source of expertise is provided by the activities of PJSC LUKOIL’s Network Group, which forms part of the Corporate Knowledge Management System.</td>
<td>Regulations on the Knowledge Management System of the Exploration and Production business segment (approved by First Executive Vice President R. Maganov on 19 March 2014). The Network Group’s annual work plan was approved</td>
</tr>
<tr>
<td><strong>RESPONSIBILITY</strong></td>
<td>The system covers all management levels, from senior management to specialized units at LUKOIL Group entities. Responsible individuals in this area also include the experts and the head of the Network Group.</td>
<td>The approved annual work plan of the Network Group as part of the Industrial Safety Program</td>
</tr>
<tr>
<td><strong>TARGETED PROGRAMS, PROJECTS, AND INITIATIVES</strong></td>
<td>Every Russian oil and gas producer has an investment program “The renovation and technical re-equipment of pipeline transport facilities”.</td>
<td>Annual and mid-term investment programs. The Integrated Program on the Improvement of Oilfield Pipeline Reliability, adopted by each entity of the Exploration and Production business segment</td>
</tr>
</tbody>
</table>
OUR GOALS

LUKOIL operates a well-developed field pipeline system, including the longest offshore pipeline system among Russian oil and gas companies (over 550 km in length). We consistently carry out work to mitigate pipeline failure risks, and have in place a well-run reliability management system for oilfield and mainline pipelines.

We are fully aware of the negative consequences that can arise as a result of pipeline disruption. To prevent potential disruptions to equipment integrity, we continuously monitor the condition of pipeline systems and use a number of methods to prevent intentional and unintentional damage caused by third parties, including modern leak detection systems, as well as the use of unmanned aerial vehicles to fly over pipeline routes.

Our goal: stabilization and reduction of accidents in pipeline transport. To prevent potential incidents, we apply an integrated approach, including the following activities:

- timely diagnostics, with a ranking of risks of detected anomalies and defects;
- applying corrosion inhibitor and electrochemical protection;
- introducing pipes with internal protective coatings and pipes made of innovative and alternative materials.

Technical diagnostics and corrosion monitoring are regularly performed as part of preventive measures. Based on the results of inspections, repair work is carried out, if necessary, and potentially hazardous areas are identified, for example, in mountainous areas at LUKOIL Uzbekistan Operating Company sites.

In order to prevent spills and to reduce environmental impacts, the Company prepares pipelines for the autumn-winter season and spring floods, LUKOIL Group oil and gas production companies annually develop and implement measures in advance. Such measures include an inspection of line shut-off valves and block valve stations, with more frequent check-ups (inspections), especially in areas of potential flooding or water cut-off zones, as well as inspections and the preparation of tools to remedy emergency oil spills.

In the event of a pipeline failure, response tools are used to contain it quickly (the average response time after an event is detected is between four and six hours, depending on the distance and weather conditions).

Results

Owing to the active measures being taken, at the end of 2019 we see an improvement in all indicators characterizing the state of the LUKOIL pipeline system.

In 2019, the failure rate decreased in relation to 2018 by 12%. This dynamic was driven by the prompt replacement of pipe sections that were identified defective (all such sections are to be replaced) and a rise in the share of pipes with a longer service life. In 2019 the share of replaced pipelines was 2.4%.

- When replacing sections of pipelines, more than 60% of the pipes are delivered to facilities in an anti-corrosion coating. They have an extended service life and do not require frequent periodic repairs, which significantly reduces operating costs.
- In-line inspections of interfield pipelines have become more common, and provide highly reliable data and allow the residual life of pipelines to be assessed more accurately.
- The number of inspections of pipeline transport facilities and the number of maintenance personnel increased. Unmanned control and monitoring methods are used, including the use of devices with internal combustion engines, which can operate in the Far North.
- Efforts were stepped up to improve quality control in the area of supplied pipes: requirements for non-metallic inclusions in pipes were developed; inspections of products, audits of manufacturers’ plants (including unscheduled ones), and observations were performed; and recommendations on the implementation of control methods and techniques were made. If quality violations are repeated, the supplier is added to the register of bad-faith suppliers (‘blacklist’), and is not permitted to take part in tender procedures.

- Continuous work is carried out to maintain a competitive environment among suppliers of tubular products with an internal protective coating: bypass experimental field tests of new types of protective coatings followed by issuing expert opinions on the conformity of the products to the technical requirements of PJSC LUKOIL.


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1 The information in this section pertains to the Russian entities of LUKOIL Group.
2 It was approved in the work plan of the Network Group “Improving the reliability of field and tubing” by PJSC LUKOIL dated January 25, 2019.
3 The definition of a significant spill is given in Appendix 7.
Reliability indicators of Russian pipeline system

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific coefficient of pipeline failures (\text{failure/km/year})</td>
<td>0.117</td>
<td>0.092</td>
<td>0.081</td>
</tr>
<tr>
<td>Share of corrosion-resistant pipelines, %</td>
<td>25.2</td>
<td>26.8</td>
<td>30.4</td>
</tr>
<tr>
<td>Volume of oil and oil products spilled in accidents, tonnes</td>
<td>220</td>
<td>32</td>
<td>16</td>
</tr>
<tr>
<td>Specific coefficient of spills ((\text{kg of spilled oil and oil products per thousand tonnes of extracted oil and gas condensate}))</td>
<td>2.7</td>
<td>0.4</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Note. A specific coefficient is calculated based on the volume of oil and gas condensate production in Russia (net of the share in related entities).

**IMPROVEMENT STRATEGY**

The network group continues to search for solutions with which the Company will be able to achieve its goals of improving the reliability of pipeline transport.

**Alternative piping.** We see the use of pipes made of alternative materials (non-metallic) with a standard service life of 30 to 50 years as a major potential area of improvement for pipeline sections exposed to corrosion. In 2019 the length of non-metallic pipes stood at 3,058 km. Bimetal pipes also have an extended service life and are of higher reliability, as they are made of high-strength steel grades.

Pilot tests of new pipes made of alternative materials are carried out at LUKOIL-Western Siberia and RITEK facilities; and bypass (bench) tests of bimetal pipes are being conducted in the Komi Republic.

**New technologies and equipment.** In 2019 LUKOIL was the first company to successfully test the Russian technology “Beluga” in underwater repairs of offshore pipelines. We had been involved in developing this technology for three years. Now, if necessary, repairs can be performed quickly, without the need to halt product pumping.

Another innovation was the introduction of leak detection and unauthorized access systems. Self-operated pressure regulators are installed at vulnerable pipeline sections, preventing damage from dynamic internal shocks.

This solution significantly boosts the operational reliability of high-pressure water pipes and pipelines in a hostile environment. The equipment has already been delivered to the Komi Republic and to RITEK facilities, and it is planned to roll out its use as a best practice.

**Pipe labeling.** Company experts suggested the use of pipe labeling (a product labeled by the respective manufacturer). This will help in tracing products, including their reliability and quality indicators. An industry working group has been set up at RSPP to handle this issue.

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1 Pipeline failure means a failure of performance associated with a sudden total or partial shutdown of the pipeline due to break of airtightness of the pipeline itself or shut-off and control valves or a blockage of the pipeline. A pipeline failure does not always entail a spill of oil, oil products or formation water, as well as a gas leak. The calculation uses the total length of pipelines (oil pipelines, gas pipelines and water pipelines).
EMERGENCY AND INCIDENT PREPAREDNESS

LUKOIL pays considerable attention to ensuring a high level of emergency preparedness. It fully complies with relevant laws of the Russian Federation and other countries where the Company operates. LUKOIL takes measures annually to maintain and improve the skills of emergency rescue units.

Plans are in place for all facilities that can pose potential sources of emergency situations, with a view to preventing and eliminating oil and petroleum product spills. Respective documents contain all the required information to facilitate rapid responses and effective interaction among those involved in rescue operations, specifically:

- potential emergency scenarios on site;
- the resources required to contain and eliminate an emergency, the steps required to involve professional emergency rescue units; system of interaction among rescue forces and use of resources;
- how to ensure a state of constant readiness for emergency containment and elimination;
- the organization of management, communications, and notifications in the event of an emergency;
- information exchange system among the people involved;
- priority actions to be taken when an emergency alert is received;
- measures to ensure public safety;
- the organization of procurement, engineering, and financial support for emergency management operations at a facility.

The priority areas of work in this area include establishing and developing our own emergency rescue units consisting of the most experienced staff at the facilities. 2,063 people made up five professional full-time emergency rescue units and 43 non-staff emergency rescue units in 2019. A necessary level of unit readiness is maintained by ensuring that they are equipped with modern technical resources and by improving skills related to rescue operations.

The most effective training activities are practical exercises and trainings, which help ensure a high level of readiness among governing bodies and personnel, as well as technical readiness. Annual trainings at federal and regional levels are conducted, including to eliminate gas, water, and oil inflows as well as open blow-outs at oil and gas condensate fields. A special emphasis is placed on conducting trainings at LUKOIL marine and river terminals and oil production facilities.

In order to boost knowledge levels and professional skills and to build team spirit and raise the status of rescuers, a second professional skills contest was held in 2019 for employees from non-staff emergency rescue units of the Company. This event was part of the 10th Professional Excellence Competition of LUKOIL Group employees for the title Best in the Profession, and was held at the Corporate Training Center. Fourteen teams from oil and gas producing, refining, and transport entities of the Group took part.

Indicators of Russian LUKOIL Group entities’ preparedness for emergencies

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of trainings conducted, including on:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the elimination of an oil/oil product spill</td>
<td>109</td>
<td>91</td>
<td>117</td>
</tr>
<tr>
<td>Number of staff involved in trainings, people</td>
<td>6,640</td>
<td>5,810</td>
<td>6,692</td>
</tr>
<tr>
<td>Number of site drills</td>
<td>10,566</td>
<td>11,996</td>
<td>10,739</td>
</tr>
<tr>
<td>Number of staff involved in drills, people</td>
<td>75,649</td>
<td>88,300</td>
<td>97,852</td>
</tr>
</tbody>
</table>

LUKOIL is taking active steps to improve the reliability of its pipeline system and the overall environmental situation in the Komi Republic. A set of measures is implemented annually, including protecting pipes against corrosion; the repair, renovation, and technical re-equipment of pipelines; and corrosion monitoring.

In 2019 more than RUB 7 billion was allocated to environmental protection measures, and over RUB 4 billion alone was spent on repairing and replacing pipelines in the Komi Republic. To mitigate technological and environmental risks, pipes with shorter life expectancy are replaced by corrosion-resistant pipes (made of steel with internal and external anticorrosion coating). In 2019 corrosion-resistant pipelines made up 24.4% of the total length of LUKOIL-Komi pipelines. At the same time, the speed and volume of pipe replacement depends on the technical condition of pipelines, and an independent expert organization performs diagnostics and determines the remaining service life of pipes. Inadequate sections are subject to prompt repair or renovation; as a result, the number of failures declined in 2019.

Overall, the replacement ratio of infield pipelines was 3.2% in 2019. Pipelines with inhibitor protection comprises 29% of the total length of pipelines. The number of personnel involved in the maintenance processes of chemical injection skids and monitoring corrosion inhibitor for field pipelines rose.

In 2019 the Company also elaborated comprehensive organizational and technical measures to reduce social and environmental risks in the Komi Republic. The implementation of the measures is scheduled for 2020-2022. Plans include additional work to replace hazardous sections of pipelines and to rehabilitate contaminated sites.

On an ongoing basis the Company interacts with suppliers of pipe products with internal protective coatings. In particular, bypass pilot testing of alternative protective coatings for pipes is conducted, with expert appraisals issued on product compliance with PJSC LUKOIL technical requirements.

For example, it was initially planned to use an internal silicate enamel coating for a water pipeline at the Yarega field. Based on recommendations issued by the Network Group's experts, pilot testing of new types of coatings were performed over two years to determine the most reliable solution. As a result, an alternative option was selected. PermNIPIneft recommended using the Sigmaline 2,500 epoxy phenolic coating, with a guaranteed service life of at least 10 years vis-à-vis quality and material conformity. Replacing the internal protective coating at this facility allowed LUKOIL-Komi to reduce capital expenditure on the construction of a water pipeline by over RUB 266 million, while at the same time boosting the operational reliability of the facility.

Complaint management

LUKOIL Group has a Social Code in place which sets forth obligations related to interacting with local communities and indigenous peoples.

At key stages of projects LUKOIL holds consultations with residents whose interests may be impacted by corporate plans. Various communication channels are used for this purpose, including public hearings on projects, personal meetings between LUKOIL Group management and specialists and residents,
LUKOIL GROUP ENTITIES OPERATING IN THE KOMI REPUBLIC

LLC “LUKOIL-Komi” – exploration and oil production on the territory of six municipalities: Usinsk, Ukhta and Vuktyl urban districts, as well as Pechora, Sosnogorsk and Izhma municipal districts.

LLC “LUKOIL-Ukhtaneftepererabotka” (municipality of the city of Ukhta) - the oldest oil refinery of the Russian industry.

and a permanent hotline to interact with the public. The opinions of local residents are taken into account when deciding on project implementation parameters.

For example, the Company informed Ust-Usa village residents about the construction of an exploration well at the West Usinskaya facility in 2019. The public opposed these plans on account of the proximity of the site to settlements. Following consultations, it was decided to move the construction site and in addition to hold regular meetings with an advocacy group of residents to address a wide range of social issues faced by local villages.

Another example concerned discussions about a disposal site for the Shchelyayurskaya group of fields owned by LUKOIL-Ukhtaneftegaz. In 2018, during public hearings, Izhemsy District residents objected to the construction of the site. In 2019 representatives of the district and public organizations (including Pechora Rescue Committee representatives) visited a similar facility, an oil sludge disposal site at the Zapadno-Tebukskoye oil field. Visitors were shown around the site and informed about how it operates, and all their questions were answered. The Pechora Rescue Committee representatives were able to satisfy themselves that the site is a modern and high-tech facility that will neutralize oil sludge without any negative environmental impacts. The representatives left positive feedback about their trip in social networks.

In 2019 the Company continued to operate its hotline, including coverage of environmental safety issues. 249 calls were received, although most were unrelated to environmental safety. All reports relating to the environment were verified, and no violations of environmental safety standards were identified.

LUKOIL-Komi liaises with active public and national organizations, including Komi Voityr, the movement of the Komi-Izhemtsi ethnical group Izvatas, Rus Pechorskaya, and the Pechora Rescue Committee. Cooperation agreements are concluded annually with a number of these organizations and support is provided to their projects. Furthermore, LUKOIL-Komi representatives participate in social movement assemblies and conferences.

As part of the Social and Cultural Projects Competition, Komi residents are given an opportunity to implement environmental initiatives related to the conservation of the environment and natural objects, and environmental education and culture. For example, 2019 saw the successful implementation of the project “Clean River - Clean City” to clean the banks and bed of the Chibyu River, using a grant from LUKOIL-Komi.

For example, see the Environmental Protection group
TIMAN-PECHORA OIL AND GAS PROVINCE

TOTAL AREA: 445.7 THOUSAND SQ. KM.

ARCTIC AREA: 275 THOUSAND SQ. KM
126.7 thousand sq. km offshore

HYDROCARBON RESERVES OF 2.4 BILLION TONNES
OF WHICH OIL ACCOUNTS FOR 60%

MAIN SUBSOIL USERS:
LUKOIL, Rosneft, Gazprom, ZARUBEZHNEFT Dobycha-Kharyaga, and Pechoraneft, etc.
LUKOIL-Komi is a major mining enterprise in the North-Western Federal District and employer in the Komi Republic, and therefore actively participates in the activities of towns and villages in the Komi Republic. In 2019 the Company allocated over RUB 800 million to social activities, including under a cooperation agreement between the Government of the Komi Republic and PJSC LUKOIL.

Employment
Many residents of the Republic wish to work with LUKOIL-Komi, as it offers attractive social benefits and pay. LUKOIL Komi gives priority to local residents, and this is enshrined in cooperation agreements with the Government of the Republic. In 2019, 708 people were hired. The approach focuses on hiring young graduates from local professional educational institutions; 56 young employees were recruited in 2019.

Jobs are allocated for the disabled: in 2019, the entity employed 24 disabled local residents, and eight jobs were financed under an agreement with the Usinsk City Organization of the Disabled.

Construction of rural outpatient clinics
LUKOIL provides support to help resolve social issues in the Republic. For example, residents of the Mutny Materik and Shchelyabozh villages sought our help to renovate rural outpatient clinics. When the results of a building inspection revealed that the current buildings could not be appropriately renovated, LUKOIL-Komi offered to build new modern social facilities, and the Government of the Komi Republic, represented by the Ministry of Health, supported the project. As a result of the joint project new outpatient clinics were equipped with wards for 24-hour patient stays and daytime hospital procedures, along with dental, physiotherapeutic treatment, and vaccination rooms. As charitable aid LUKOIL-Komi and the LUKOIL Charity Foundation bought medical equipment. The clinics are scheduled to open in 2020.

Cooperation agreements
The Cooperation Agreement with the Government of the Komi Republic provides for the financing of facilities and activities which are selected in negotiations with municipalities and the Ministry of Investment, Industry and Transport of the Komi Republic.

We also respond to requests from municipalities to build social facilities. For example, the Yugdom Ice Palace in Usinsk, built with financial support from LUKOIL-Komi, hosts a regular hockey tournament with teams from other cities. The city administration requested the construction of a sports hall with stands for sports enthusiasts. As a result, together with the Government of the Komi Republic it was decided to build a second building at the Yugdom Ice Palace. The new building has a hall with 200 seats in which various sports can be played, including five team member football, volleyball, and basketball. There is also a hall for wrestling and judo.

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The safety of production activities in the Arctic Zone and northern territories is closely monitored by the public, due to the high risks related to upsetting the ecological balance in these locations.

**ARCTIC**

- **TOTAL AREA:** 29.8 MILLION SQ. KM
- **LAND AREA:** 14 MILLION SQ. KM.
- **THE POPULATION INCLUDES:** 30 DIFFERENT PEOPLES
- **FLORA:** 20 THOUSAND SPECIES.
- **FAUNA:** >180 SPECIES.

**THE COMPANY, IN ACCORDANCE WITH ITS INDUSTRIAL AND ENVIRONMENTAL SAFETY POLICY, SEEKS TO MINIMIZE THE IMPACTS OF LUKOIL GROUP ENTITIES’ ACTIVITIES ON THE CLIMATE AND BIOLOGICAL DIVERSITY OF VULNERABLE AREAS, INCLUDING THE ARCTIC ZONE OF THE RUSSIAN FEDERATION.**

**ARCTIC ZONE COUNTRIES:**
- Russia
- The United States
- Canada
- Denmark
- Iceland
- Norway
- Sweden
- Finland
In Russia, the Arctic Zone\(^1\) comprises not only the continental shelf and islands in the Arctic Ocean, but also the territories (or part of them) of eight Russian regions, in three of which LUKOIL conducts operations. The Pyakyakhinskoye and Nakhodkinskoye fields, LUKOIL’s main gas assets, are being developed in the Yamal-Nenets Autonomous Area, while in the Nenets Autonomous Area LUKOIL extracts oil and natural gas. The village of Varandey is home to Russia’s northernmost oil and petroleum product shipping terminal.

To enhance the safety of production processes cutting-edge technologies are used, including pitless drilling and safe production methods for hard-to-recover oil reserves (HTR reserves). We use pipes with internal protective coatings, external heat-insulating and water-proof coatings, and electrical heating for pipes. Field pipeline routes are inspected from helicopters.

In 2019, for the second consecutive year, LUKOIL made the top three (it ranked first in 2018) based on the results of the Polar Index rating (managed by the Project Office for the Development of the Arctic and the Economics Department of Moscow State University), which assesses the sustainable development of companies working in the Russian Arctic.

RUSSIA

VARANDEY

The Varandey Terminal comprises two interconnected facilities located onshore and offshore in the Barents Sea. Oil is stored in coastal tanks for subsequent shipment to ships through a stationary, ice-resistant marine loading berth located 22 kilometers from the shore. Varandey has extensive experience in year-round marine transportation of large volumes of oil under icy conditions and wave loads. Given the high risk of an accident in icy conditions, the design and construction of the terminal was based on a state-of-the-art design and technical solutions which were adopted in Russia for the first time:

- the environmental safety system of the shipping berth has three levels of protection and operates in an autonomous mode;
- oil shipments are automatically shut down in an emergency;
- specially strengthened double-hulled tankers were built, which can carry oil shipments all year round;
- the tank farm premises are ringed by a reinforced concrete fence that prevents any release of oil products into the environment in the event of damage to the tank.

Oil is supplied from the shore terminal to the loading berth in a cyclical manner via two lines of subsea pipelines, which facilitates the continuous heating of the oil and prevents it from freezing inside the pipe.

We place a special emphasis on the prevention of emergency situations and on developing the skills necessary to eliminate potential spills in icy conditions. In accordance with approved Oil and Oil Product Spill Prevention and Response Plans, special vessels with equipment for emergency management (under a contract with professional emergency rescue teams) are on 24-hour duty at all offshore facilities of LUKOIL Group entities.

Cooperation agreements have been signed with other companies working in the Arctic Zone, which facilitates the development of optimum joint operations to eliminate potential oil spills.

In order to protect the environment, technological processes are automatically monitored to ensure the detection of potential leaks of pollutants in real time. Devices are used to shut down emergency process equipment. A system to continuously monitor the impact of production on the environment is in place.

No significant incidents have so far occurred during the 11 years of operation of the terminal.

\(^1\) An expansion of the boundaries of the Arctic Zone in the Komi Republic is being considered.
Another northern region in which LUKOIL works is Norway. While not the system operator, LUKOIL Overseas North Shelf AS is a participant in two license projects on the Barents Sea shelf. At the time of preparing this Report, both projects were in the exploration stage.

LUKOIL Overseas North Shelf AS ensures high standards of operations in accordance with the recommendations of the KonKraft\(^1\) report “Competitiveness – a changing tide on the Norwegian continental shelf.” The document standardizes the approaches to interaction among operators of oil and gas production projects and third-party service companies. The requirements of KonKraft have been taken into account in the management system of LUKOIL Overseas North Shelf AS and its emergency response program.

In accordance with Norwegian law, when preparing for well construction the project operator, on behalf of all partners (participants), sends a package of documents to regulatory authorities, which contain comprehensive information on the volume of expected emissions, the quantity and concentration of chemical and pollutant discharges, and other data.

The documents are discussed at a public hearing attended by representatives from Greenpeace, the Norwegian Directorate of Fisheries, the Norwegian Institute of Marine Research, the Norwegian Polar Institute, and other stakeholders. LUKOIL presented information at the hearing on its corporate principles and experience in implementing environmental protection and industrial safety measures when implementing projects in Russia and abroad, including the zero-emission principle.

As a participant in offshore exploration and production projects, LUKOIL Overseas North Shelf AS takes into account best practices in reducing emissions and gas flaring. A decision was made to electrify onshore and offshore facilities, which contributes to the reduction of GHG emissions and prevents the use of gas turbines on the shelf. To avoid associated petroleum gas flaring\(^2\), gas injection is used to enhance oil recovery or for underground storage (in the absence of economically viable gas transportation to consumers).

The projects use modern technologies to ensure safety and to boost energy efficiency. Digital solutions are being actively introduced into production processes, and modern software products are used in geological and geophysical studies and for well drilling.

LUKOIL Overseas North Shelf AS is an active participant in cross-industry initiatives and in projects in Norway aimed at reducing risks and ensuring responsible environmental activities in Arctic Zone projects, such as ACCES (2016–2019).

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\(^1\) KonKraft is a platform for interaction between state authorities, oil and gas companies, and the industry association, whose main purpose is to come up with mutually beneficial solutions to enhance the competitiveness of the industry through coordinated approaches, including in the field of safety, environmental protection, and climate change.

\(^2\) Associated petroleum gas flaring is prohibited on the Norwegian shelf, except in emergency situations (emergency flaring).
INFORMATION SECURITY

Information security is becoming an increasingly important area for the oil and gas industry. Information security threats raise the risk of accidents as well as the scale of their impact. LUKOIL-Technologii has established an information security unit that is staffed with highly qualified specialists. In accordance with the Federal Law “On the Security of the Critical Information Infrastructure of the Russian Federation,” LUKOIL Group entities have categorized critical information infrastructure facilities. A qualitative assessment has been made of potential damage due to the loss of integrity, confidentiality, or accessibility.

A monitoring center works continuously to detect weaknesses at an early stage, depending on the degree of criticality of an information resource, and risk mitigation measures are elaborated and implemented.

Requirements related to compliance with information security rules are included in contracts with contractors (violations constitute grounds for imposing penalties) as well as in the job descriptions of employees. Non-compliance with the rules represents a serious violation of work discipline and work duties. Each incident is investigated.

To ensure the reliability of information systems, vulnerability analysis is carried out before commissioning and during operation, and methods of safe software development are being introduced.

Ensuring the protection of personal data is an important area of the Company’s client-oriented policy. The Company uses access control to internal networks, application and system-wide levels, means for recording and keeping a log of users’ activity, antivirus software, password systems for networks and information systems that process personal data, firewalls, tools, and physical access controls. The safeguarding of personal data is also ensured through trainings and methodological support for employees.

To further improve information security the following main projects are planned:

- Increasing the level of automation of cybersecurity operations, chiefly in terms of providing user authority in information systems and monitoring its appropriate use
- Designing information security systems for significant facilities under critical information infrastructure
- Upgrading and replacing obsolete security tools.
ENVIRONMENTAL PROTECTION

Igor Zaikin
Head of HSE Department of PJSC LUKOIL

WHAT TASKS DID THE COMPANY DEAL WITH AS PART OF THE ENVIRONMENTAL SAFETY PROGRAM IN THE REPORTING YEAR?

The implementation of the environmental program in 2019 enabled us to improve our performance vis-à-vis key environmental impacts. Some activities were aimed at further expanding the value-added use of associated petroleum gas, resulting in this indicator rising to 97.5% in Russia and 98.9% abroad. At the same time, APG flaring fell by 6%. We also managed to reduce air pollutant emissions across the Group. Thanks to the projects implemented, we achieved the key performance indicator for waste management activities, with the volume of waste disposal matching that of waste generation.

In line with the Company's plans related to climate change, a new unit was created in the HSE Department, which will coordinate activities on greenhouse gas emission management and adapting to climate change, and prepare proposals for long-term targets.
Biodiversity conservation is a priority within LUKOIL’s environmental policy. We conduct regular environmental monitoring and implement projects to restore and increase fish populations and vegetation, including rare species. In 2018 the Company joined an initiative as part of the Russian federal project entitled Conservation of Biological Diversity and the Development of Ecotourism, and became a member of a task force of the Ministry of Natural Resources and Environment of the Russian Federation.

Recently we launched a new project aimed at restoring and protecting the saiga population. This species of antelope is on the verge of extinction and is planned to be included in the Red Book of Russia. Our joint efforts with the Russian Ministry of Natural Resources and the governments of the Republic of Kalmykia and the Astrakhan Region will make an important contribution to maintaining the ecosystem of the Caspian Region. A roadmap for saiga conservation has already been approved, and the project strategy, together with specific activities, are being developed.
Environmental issues received significant attention in the assessment of contributions to the UN Sustainable Development Goals in 2019. The main reason for this was the poor progress made in improving the environmental situation globally.

Generally, three of the 17 UN Sustainable Development Goals are classified as relating to the environment. According to the Sustainable Development Goals Index, no progress was made on any goal in 2019. Significant challenges remain, particularly as far as the preservation of healthy oceans and biodiversity on land is concerned.

Experts and scientists point out the urgent need to intensify collaborative efforts of governments, companies and public organizations. In particular, green investments equating to 2% of a country’s GDP could facilitate long-term growth and at the same time reduce negative impacts on climate, water resources and ecosystems.

The accelerated adoption of existing production and environmental technologies, the active use of scientific data, and greater funding for solutions to environmental issues were identified as the most urgent tasks, including for companies, since human health and well-being directly depends on the state of the environment.

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### KEY CHANGES AND RESULTS IN THE REPORTING YEAR

<table>
<thead>
<tr>
<th><strong>RUSSIAN ENTITIES CUT AIR POLLUTANT EMISSIONS BY 7.2%</strong></th>
<th><strong>A DECISION WAS MADE TO LAUNCH A JOINT PROJECT WITH THE MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT OF THE RUSSIAN FEDERATION ON SAIGA ANTELOPE CONSERVATION IN THE “BLACK LANDS” NATURE RESERVE AND THE “STEPNOI” RESERVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL PRODUCTION WASTE GENERATED BY THE RUSSIAN ENTITIES WAS FULLY DISPOSED OF, AND THE AMOUNT OF PRE-PRIVATIZATION WASTE DECREASED BY 17%</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

**CONTEXT**

Environmental issues received significant attention in the assessment of contributions to the UN Sustainable Development Goals in 2019. The main reason for this was the poor progress made in improving the environmental situation globally.

Generally, three of the 17 UN Sustainable Development Goals are classified as relating to the environment. According to the Sustainable Development Goals Index, no progress was made on any goal in 2019. Significant challenges remain, particularly as far as the preservation of healthy oceans and biodiversity on land is concerned.

Experts and scientists point out the urgent need to intensify collaborative efforts of governments, companies and public organizations. In particular, green investments equating to 2% of a country’s GDP could facilitate long-term growth and at the same time reduce negative impacts on climate, water resources and ecosystems.

The accelerated adoption of existing production and environmental technologies, the active use of scientific data, and greater funding for solutions to environmental issues were identified as the most urgent tasks, including for companies, since human health and well-being directly depends on the state of the environment.

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1. SDG 6 (Clean Water and Sanitation), SDG 14 (Life below Water) and SDG 15 (Life on Land). Nevertheless, given the interconnectedness of all the 17 UN goals, the environment also affects the achievement of the other goals.


3. Source: Global Environmental Outlook 6, UN Environmental Programme, 2019.
ENVIRONMENTAL SAFETY PROGRAM

According to LUKOIL’s Health, Safety and Environment Policy, environmental protection is one of the Company’s priorities. The integrated management system and the actions taken in 2019 to improve the environment are described in detail in the Safety section (see page 72).

To enhance our environmental protection management system, LUKOIL systematized biodiversity conservation initiatives in 2019 as part of the expansion of our activities in this area. Criteria and approaches were developed to make our activities more systematic and to obtain more measurable results.

In addition, the Company continued to enhance data preparation methods in line with the GRI Standards, and disclosures are being expanded to better inform stakeholders.

For the first time, this Report includes disclosures on the environmental impacts of the refinery in Italy (ISAB S.r.l.) and oil product supply entities abroad (IOOO LUKOIL Belorussia and LUKOIL-BULGARIA EOOD). As before, the disclosures on the refineries LUKOIL Neftochim Burgas AD (Bulgaria) and PETROTEL-LUKOIL S.A (Romania), as well as the Uzbek production project LUKOIL Uzbekistan Operating Company LLC, data on which are disclosed from 2018, are included.

In 2019 PJSC LUKOIL was rated in the top five in the environmental transparency rating of Eurasian oil and gas companies. The rated companies’ potential impact on the environment and their information transparency were assessed by the World Wildlife Fund (WWF) Russia and CREON Group. In total, the rating included 20 companies from Russia (producing more than 1.5 million tonnes of oil and gas condensate), 14 companies from Kazakhstan and 2 from Azerbaijan.

Most of the budget of the 2019 Environmental Safety Program (RUB 35.9 billion) was spent on measures to increase the sustainable use of associated petroleum gas (around 40% of the costs of the Program) and the reliability of pipeline transport.

1 Planning of activities under the target program is synchronized with corporate medium-term planning procedures. The program is developed for three years and is annually reviewed. During the previous reporting period, the target program for 2018-2020 was in effect.

2 The Environmental Safety Program for 2018-2020 involved 53 LUKOIL Group entities. As a result of some organizational changes (consolidation of a number of entities in the Russian Oil Product Supply business sector and transfer of responsibility for the Transportation business sector to LUKOIL-Trans), the number of entities participating in the Program decreased, but the number of production facilities did not change as compared to 2018.
Non-standard payments\(^1\) in the reporting year accounted for 4% of total penalties based on negative environmental impacts. In 2019, a significant fine of RUB 68.9 million was paid under a lawsuit filed by the Department of the Federal Service for Supervision of Natural Resources Management for the Komi Republic against LUKOIL-Komi for environmental damages.

LLC LUKOIL-Komi’s operating division Yareganeft is developing the Yaregskoye field, one of the oldest sources of high-viscosity oil in Russia. In April 2016, the Yarega River and the Maly Voyvozh stream near the Yarega settlement, Ukhta District, were heavily polluted with oil products, following an oil spill from old wells. The Department of the Federal Service for Supervision of Natural Resources Management for the Komi Republic brought a lawsuit against LLC LUKOIL-Komi for damage caused to the environment. After litigation lasting over two years, the Arbitration Court of the Republic of Komi ruled on 8 April 2019 to satisfy the claimant’s claims, ordering LUKOIL-Komi to pay RUB 68.9 million in damages to the Department of the Federal Service for Supervision of Natural Resources Management of the Komi Republic.

In 2016, a plan of organizational and technical measures for rehabilitation of the disturbed territories and water bodies was drafted, and the Company started to implement it immediately, before the final decision on the case was made. In 2016–2019, LUKOIL-Komi carried out cleaning and remediation of the nearshore zone of the Yarega River and streams flowing into it, with a total area of 20 km. Sediment was cleaned in the area of the crossing of the stream at the “Yareganeft” production site, from the crossing to the mouth of the Maly Voyvozh stream, and at the section of the Yarega River to the inflow into the Izhma River. The cost of the work performed was taken into account when determining the amount of damage in the litigation.

At the same time, the cleaning of bottom sediments was complicated due to the lack of in situ treatment technology. A proposal from Tomsk State University on how to solve this issue was received in 2019 and is currently being considered. Depending on the results, a decision will be taken on the feasibility of this technology.

The measures taken by LUKOIL-Komi to mitigate the impacts of Yareganeft’s activities on water bodies include construction of new treatment facilities. Construction started in 2016 and was completed in 2019. In 2019, the facilities also underwent pre-commissioning and essential retrofitting. Commissioning is scheduled for 2020.

\(^1\) Non-standard payments, inter alia, may arise due to delays in obtaining permit documents.
**Indicators of LUKOIL Group’s Environmental Safety Program**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2018</th>
<th>2019</th>
<th>Δ</th>
<th>Goals for 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utilization Level of Associated Petroleum Gas, %</strong></td>
<td>97.4</td>
<td>97.6</td>
<td>0.2</td>
<td>A further rise in the indicator’s value</td>
</tr>
<tr>
<td>Across LUKOIL Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pollutant Emissions into the Atmosphere, Thousand Tonnes</strong></td>
<td>451.3</td>
<td>428.7</td>
<td>-7.2%</td>
<td>A 5% decline at Russian entities compared to 2018</td>
</tr>
<tr>
<td>Across LUKOIL Group</td>
<td>433.3</td>
<td>402.3</td>
<td>-7.2%</td>
<td></td>
</tr>
<tr>
<td>Across Russian entities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wastewater Discharged into Surface Water Objects, Million Cubic Meters</strong></td>
<td>0.9</td>
<td>10.7</td>
<td>1.0</td>
<td>A further reduction in the indicator’s value</td>
</tr>
<tr>
<td>Across Russian entities</td>
<td></td>
<td>10.7</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>1.0 is the share of LUKOIL-Ukhtaneftepererabotka, an 8% drop at oil and gas production entities and a 9% drop at transportation entities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water Consumption for Own Needs, MLN Cubic Meters</strong></td>
<td>354.9</td>
<td>358.0</td>
<td>1%</td>
<td>A reduction in the indicator’s value</td>
</tr>
<tr>
<td>Across Russian entities</td>
<td></td>
<td>358.0</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td><strong>Disposal of Waste Accumulated During the Pre-Privatization Period, Thousand Tonnes</strong></td>
<td>107.0</td>
<td>69.0</td>
<td></td>
<td>To reduce waste by 250 thousand tonnes across the entire Group in 2019–2021</td>
</tr>
<tr>
<td>Across LUKOIL Group</td>
<td>50.0</td>
<td>51.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Across Russian entities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rehabilitation of Contaminated Land, Hectares</strong></td>
<td>50.3</td>
<td>56.6</td>
<td></td>
<td>About 40 hectares per annum</td>
</tr>
<tr>
<td>Across Russian entities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Minimizing the Impacts of Operations of LUKOIL Group Entities on the Biodiversity of Vulnerable Territories, Including the Russian Arctic Zone</strong></td>
<td>Providing in-production environmental controls and monitoring of environmental components</td>
<td>Providing in-production environmental controls and monitoring of environmental components</td>
<td>Identifying indicative animal species for the Biodiversity Conservation Program</td>
<td>Confirmation based on in-production environmental controls and monitoring of environmental components to check that the Company’s activities have no impact on biodiversity; improvement of management mechanisms</td>
</tr>
</tbody>
</table>

**Note.** Data for LUKOIL Group for 2018 are presented in accordance with 2018 reporting boundaries, and for 2019 – in accordance with 2019 reporting boundaries.

1 The indicator growth for LUKOIL Group is solely due to the classification of LUKOIL-Ukhtaneftepererabotka wastewater in 2019 as insufficiently treated as the discharge rates had been aligned with the concentration levels for top-class fishery water bodies.
WATER

Water is used in all production cycle stages from exploration and production of hydrocarbons to the delivery of finished products to the consumer.

Our key approach to solving the issue of sustainable water use involves applying water recycling and reuse systems at the refineries’ production facilities and power generation facilities, both of which are major water users. We are also committed to the most efficient use of fresh water in our production and refining processes. Fresh water accounts for 59% of total water withdrawn by LUKOIL Group entities.1

As part of the corporate Environmental Safety Program, water resource management activities have been integrated into the “Clean Water” subprogram. To improve the water use system, the Company builds, renovates and re-equips water treatment and wastewater treatment systems.

In 2019, the following priority projects were implemented:

- Renovation of biological treatment facilities at the Ukhta Refinery
- Upgrades to biological treatment facilities at the Saratovorgsintez plant
- The treatment (disposal) of wastewater from combined cycle plants and elimination of old settling basins of oil mine treatment facilities at LUKOIL-Komi
- The construction and renovation of formation (produced) water treatment systems at LUKOIL-Perm

WATER WITHDRAWAL

Our operations in Russia are carried out in regions that have ample water resources, with the exception of regions with high population density and concentrated economic activity in southern Russia (Astrakhan and Volgograd Regions, the Stavropol and Krasnodar Territories).

Among foreign countries, Uzbekistan and Iraq are classified as having low water levels. In these countries there are risks of frequent droughts, lack of drinking water and interruptions in the supply of clean water to the local population.

In Russia, around 84% of the volume of water withdrawal is taken by LUKOIL entities from surface and underground water sources. Water is mainly withdrawn from the Ob, Pechora, Volga, Don and Kuban river basins in accordance with respective permits and within established quotas.

In 2019, the volume of water withdrawal by Russian entities changed insignificantly compared to the 2018 level. The general indicators of water withdrawal and water consumption in Russia are significantly affected by the organization of the electric power industry.

Water withdrawal by organizations of the business sector “Power Generation” accounts for about 69% of water withdrawal in Russian organizations and for about 44% of the volume of water withdrawal for LUKOIL Group.

Our commitment to the sustainable use of natural resources, including water, covers:

- minimizing impacts of operations, and reducing fresh water withdrawal
- reducing operational dependence on potential external unfavorable factors, including natural ones (droughts, shrinking of surface water bodies, and pollution of underground sources).

1 Within the reporting boundaries of 2019.
### Water withdrawal and consumption by LUKOIL Group entities, million cubic meters

<table>
<thead>
<tr>
<th>Water withdrawal across LUKOIL Group</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>449.8</td>
<td>464.0</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td>-</td>
<td>-</td>
<td>694.0</td>
</tr>
<tr>
<td>Russian entities</td>
<td>511.1</td>
<td>428.5</td>
<td>441.0</td>
</tr>
<tr>
<td>The share of electric power entities</td>
<td>331.9</td>
<td>297.7</td>
<td>303.6</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>21.3</td>
<td>23.0</td>
</tr>
<tr>
<td>• ISAB</td>
<td>-</td>
<td>NA</td>
<td>229.9</td>
</tr>
<tr>
<td>• Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water consumption for own needs (household, industrial, other) by LUKOIL Group</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>374.4</td>
<td>379.0</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td>-</td>
<td>-</td>
<td>609.0</td>
</tr>
<tr>
<td>Russian entities</td>
<td>376.4</td>
<td>354.9</td>
<td>358.0</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>19.5</td>
<td>21.0</td>
</tr>
<tr>
<td>• ISAB</td>
<td>-</td>
<td>NA</td>
<td>229.9</td>
</tr>
<tr>
<td>• Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other operations</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LUKOIL Group, including:</td>
<td>-</td>
<td>34.5</td>
<td>28.9</td>
</tr>
<tr>
<td>Russian entities</td>
<td>NA</td>
<td>34.5</td>
<td>28.1</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>0.0</td>
<td>0.8</td>
</tr>
<tr>
<td>• ISAB</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>• Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unused water transferred to third-party consumers by LUKOIL Group</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LUKOIL Group, including:</td>
<td>-</td>
<td>40.9</td>
<td>56.1</td>
</tr>
<tr>
<td>Russian entities</td>
<td>NA</td>
<td>39.1</td>
<td>54.9</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>1.8</td>
<td>1.2</td>
</tr>
<tr>
<td>• ISAB</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>• Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Note:** (1) Data on LUKOIL Group are published in the Report starting from calendar year 2018 (reporting year). (2) In 2018, the methodology for accounting for water use in Russian entities was improved by eliminating duplicate accounting for water used in intra-group transfers (between LUKOIL Group organisations). (3) Other operations include: formation water injected into absorbing underground formations; household wastewater received from other users by LLC LUKOIL-Ukhtaneftepererabotka and transferred to its treatment facilities.
## Total water withdrawal by LUKOIL Group entities by water withdrawal sources, million cubic meters

<table>
<thead>
<tr>
<th>Source of Water Withdrawal</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water withdrawn, total in LUKOIL Group</strong></td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>449.8</td>
<td>464.0</td>
</tr>
<tr>
<td>Within the boundaries for 2019</td>
<td>-</td>
<td>-</td>
<td>694.0</td>
</tr>
</tbody>
</table>

### Water withdrawn by water withdrawal sources, including:

#### 1) from surface sources

<table>
<thead>
<tr>
<th>Source of Water Withdrawal</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>287.0</td>
<td>290.0</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td>-</td>
<td>-</td>
<td>340.5</td>
</tr>
</tbody>
</table>

**Russian entities, including:**

- **sea water**
  - 2017: NA
  - 2018: 11.4
  - 2019: 11.0

- **water from other surface sources**
  - 2017: NA
  - 2018: 256.2
  - 2019: 258.7

**Foreign entities, including:**

- **sea water (without ISAB and oil product supply entities)**
  - 2017: -
  - 2018: 0.0
  - 2019: 0.0

- **ISAB**
  - 2017: -
  - 2018: NA
  - 2019: 50.5

- **Oil product supply entities**
  - 2017: -
  - 2018: NA
  - 2019: 0.0

- **water from other surface sources (without ISAB and oil product supply entities)**
  - 2017: -
  - 2018: 19.4
  - 2019: 20.3

- **ISAB**
  - 2017: -
  - 2018: NA
  - 2019: 0.0

- **Oil product supply entities**
  - 2017: -
  - 2018: NA
  - 2019: 0.0

#### 2) from underground sources

<table>
<thead>
<tr>
<th>Source of Water Withdrawal</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>99.0</td>
<td>102.3</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td>-</td>
<td>-</td>
<td>104.8</td>
</tr>
</tbody>
</table>

**Russian entities, including:**

- **fresh water**
  - 2017: NA
  - 2018: 64.7
  - 2019: 61.2

- **other water**
  - 2017: NA
  - 2018: 32.4
  - 2019: 38.5

**Foreign entities, including:**

- **fresh water (without ISAB and oil product supply entities)**
  - 2017: -
  - 2018: 0.04
  - 2019: 0.04

- **ISAB**
  - 2017: -
  - 2018: NA
  - 2019: 2.5

- **Oil product supply entities**
  - 2017: -
  - 2018: NA
  - 2019: 0.0

- **other water (without ISAB and oil product supply entities)**
  - 2017: -
  - 2018: 1.9
  - 2019: 2.6

- **ISAB**
  - 2017: -
  - 2018: NA
  - 2019: 0.0

- **Oil product supply entities**
  - 2017: -
  - 2018: NA
  - 2019: 0.0

#### 3) from other sources (centralized water supply systems, etc.), including

<table>
<thead>
<tr>
<th>Source of Water Withdrawal</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian entities</td>
<td>155.3</td>
<td>63.8</td>
<td>71.6</td>
</tr>
</tbody>
</table>

**Foreign entities, including:**

- **without ISAB and oil product supply entities**
  - 2017: -
  - 2018: 0.0
  - 2019: 0.1

- **ISAB**
  - 2017: -
  - 2018: NA
  - 2019: 176.9

- **Oil product supply entities**
  - 2017: -
  - 2018: NA
  - 2019: 0.1

---

**Note:** (1) Data on LUKOIL Group are published in the Report starting from calendar year 2018 (reporting year). (2) In 2018, the methodology for accounting for water use in Russian entities was improved by eliminating duplicate accounting for water used in intra-group transfers (between LUKOIL Group organisations). (3) Since 2019, the volume of water intake has been calculated with the release of data on sea water. (4) The data on the volume of water intake from underground sources includes formation water subsequently injected into the underground formations. (5) Water withdrawal from other sources includes wastewater from utilities taken and transferred to treatment facilities without use by Group organizations.
WATER CONSUMPTION

Oil and gas production entities of LUKOIL Group mainly use water for formation pressure maintenance and in the desalting of produced oil.

Refining, Marketing and Distribution business segment entities (excluding the business sector “Power Generation”) totally consume for own needs around 47% of all water used1 across LUKOIL Group. The Company implements measures annually to optimize water consumption. In 2019 a new water recycling system was introduced at the Korobkovsky GPP, which resulted in reduced consumption of make-up2 water. There are plans to implement investment projects for the construction of a boiler water treatment unit at the Nizhny Novgorod Refinery and the upgrading of the water recycling units at the Volgograd Refinery with the decommissioning of obsolete equipment to boost water use efficiency.

Power generation entities use water to generate steam and cool equipment in thermal power plants. The water consumption3 for own needs by the organizations of the business sector Electricity is about 62% of the water consumption structure of Russian organizations and about 36% of the water consumption of LUKOIL Group.

The Group’s oil and gas production, transportation and refining organizations use water withdrawn from the sea. Water from the Caspian Sea is used by LUKOIL-Nizhnevolzhskneft to cool equipment and is returned chilled to almost its natural temperature back to the sea without being used in other production processes and without being contaminated.

The Italian refinery (ISAB) withdraws water for production purposes from the Mediterranean Sea. After desalting, sea water is used to cool oil processing facilities. In order to reduce water consumption at the plant, part of the steam condensate circuit and the recovery system has been optimized, and measures have been taken to reuse sea water after treatment.

Specific water consumption by Russian entities remains relatively stable across all business sectors.

---

### Specific water consumption for operational needs by Russian LUKOIL Group entities, broken down by types of activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas extraction, cubic meters/tonne</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Oil processing, cubic meters/tonne of processed</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Oil product supply, cubic meters/tonne of processed</td>
<td>0.07</td>
<td>0.10</td>
<td>0.07</td>
</tr>
<tr>
<td>Oil product supply, cubic meters/tonne of oil</td>
<td>0.02</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Power generation, cubic meters/tonne</td>
<td>34.4</td>
<td>34.0</td>
<td>35.3</td>
</tr>
</tbody>
</table>

Notes. (1) Specific indicators are calculated based on volumes of water consumed by LUKOIL Group entities for their own needs. (2) Fluctuations in the indicators of petrochemical and oil refining entities are mainly due to a change in the volume of products produced. (3) The performance of the indicator of the Power Generation business sector is explained by the fact that in 2019, along with a decrease in production due to a warm winter, a number of standard technical measures were taken at LLC LUKOIL-Kubanenergo and LLC LUKOIL-Stavropolenergo. (4) The change in the methodology for accounting for water use in 2018 did not affect the value of the indicators for 2017.

---

1 In this case, the volume of water consumed for own needs by the Refining, Marketing and Distribution business segment of total consumption for own needs by LUKOIL Group is implied.

2 Make-up water is water that has been chemically and thermally processed and is intended to compensate water losses in heat-consuming facilities and heating networks.

3 In this case, the volume of water consumed for own needs of the “Power Generation” sector from the total consumption for own needs of LUKOIL Group and Russian entities is implied.
WATER REMOVAL AND WASTEWATER QUALITY

The Company monitors wastewater quality on an ongoing basis, paying special attention to biological, chemical and physical properties of water. Improving the quality of wastewater is one of the objectives of the Environmental Safety Program. Compliance with established standards is monitored by LUKOIL laboratories as part of in-production environmental controls, as well as by independent certified organizations.

Wastewater generated from the production process is transferred to treatment facilities, which use mechanical, biological and physical-chemical treatment methods. Measures are taken to identify and prevent any potential negative impact associated with wastewater disposal.

The main activities aimed at improving wastewater quality at oil and gas production entities in 2019 included building wastewater treatment facilities for the Yareganeft oil and mines division of LUKOIL-Komi (the facility is scheduled to be commissioned in 2020) and refurbishment of treatment facilities at the Ukhta Refinery. An upgrade of biological treatment facilities at the Saratovorgsintez plant is currently underway.

Oil refining and petrochemical entities in Russia do not discharge polluted wastewater into surface water bodies. In 2019, the share of polluted wastewater in the total water discharge into surface water bodies by Russian entities rose to 5% due to a change in the permitted discharge rates for the biological treatment facilities at the Ukhta Refinery (Komi Republic).

At the Ukhta Refinery, after going through the biological treatment facilities, wastewater is discharged into a surface water body (the Ukhta River). In addition to wastewater from production processes, the plant receives and disposes of wastewater from a municipal organization Municipal Unitary Entity (MUE) Ukhtavodokanal that supplies water to Ukhta residents. The volume of utility wastewater accounts for 83.5% of the total plant’s wastewater.

The treatment facilities were built in 1967; the third phase of the project was begun in the early 1990s and was supposed to improve the treatment of wastewater. However, due to a dramatic change in the country’s economic situation, the project was not implemented in full. More stringent requirements of Russian environmental legislation have resulted in the existing biological treatment facilities no longer being able to provide the necessary quality of wastewater (in line with the level of maximum permissible concentrations of harmful substances in fishery water bodies).

The Company acknowledges the importance of treatment facilities not only for the refinery, but also for the city, and is implementing an environmental project to improve the quality of wastewater.

A reconstruction plan has been drafted and the four stages of the project to upgrade the plant’s biological treatment facilities were already completed in 2017-2019. The full upgrade of the facilities is scheduled to be finished in 2023. By then, established standards for wastewater quality will have been achieved.

CLEAN AND TREATED WATER AS PER THE CURRENT STANDARDS ACCOUNTED FOR 97% OF TOTAL DISCHARGES INTO SURFACE WATER BODIES.

1 Except for LLC LUKOIL-Ukhtaneftepererabotka.
### Water discharges by LUKOIL Group entities, million cubic meters

<table>
<thead>
<tr>
<th>Water Discharge</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total water discharged across LUKOIL Group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>352.5</td>
<td>357.6</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td>-</td>
<td>-</td>
<td>568.0</td>
</tr>
<tr>
<td>Russian entities</td>
<td>236.4</td>
<td>337.6</td>
<td>344.3</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>14.9</td>
<td>13.3</td>
</tr>
<tr>
<td>ISAB</td>
<td>-</td>
<td>NA</td>
<td>210.3</td>
</tr>
<tr>
<td>Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.1</td>
</tr>
</tbody>
</table>

### Water discharge by destination

1. **water discharge into surface water bodies for LUKOIL Group (without water discharges into the sea)**

<table>
<thead>
<tr>
<th>Water Discharge</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>218.1</td>
<td>216.5</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td>-</td>
<td>-</td>
<td>216.6</td>
</tr>
<tr>
<td>Russian entities</td>
<td>NA</td>
<td>203.4</td>
<td>203.4</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>14.7</td>
<td>13.1</td>
</tr>
<tr>
<td>ISAB</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.1</td>
</tr>
</tbody>
</table>

2. **water discharge into the sea**

<table>
<thead>
<tr>
<th>Water Discharge</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>11.3</td>
<td>10.9</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td>-</td>
<td>-</td>
<td>221.2</td>
</tr>
<tr>
<td>Russian entities</td>
<td>NA</td>
<td>11.3</td>
<td>10.9</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>ISAB</td>
<td>-</td>
<td>NA</td>
<td>210.3</td>
</tr>
<tr>
<td>Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
</tbody>
</table>

3. **water discharge into underground formations**

<table>
<thead>
<tr>
<th>Water Discharge</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>104.2</td>
<td>106.7</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td>-</td>
<td>-</td>
<td>106.7</td>
</tr>
<tr>
<td>Russian entities</td>
<td>NA</td>
<td>104.0</td>
<td>106.5</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>ISAB</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
</tbody>
</table>

4. **water transferred after use to a third party (excluding intra-group exchange)**

<table>
<thead>
<tr>
<th>Water Discharge</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the boundaries for 2018</td>
<td>-</td>
<td>18.4</td>
<td>23.4</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td>-</td>
<td>-</td>
<td>23.4</td>
</tr>
<tr>
<td>Russian entities</td>
<td>NA</td>
<td>18.4</td>
<td>23.4</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>ISAB</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
</tbody>
</table>

5. **other water discharge**

<table>
<thead>
<tr>
<th>Water Discharge</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUKOIL Group, including:</td>
<td>-</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Russian entities</td>
<td>NA</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>Foreign entities (without ISAB and oil product supply entities)</td>
<td>-</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>ISAB</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>Oil product supply entities</td>
<td>-</td>
<td>NA</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Note.** (1) Data on LUKOIL Group are published in the Report starting from calendar year 2018 (reporting year). (2) In 2018, the methodology for accounting for water use in Russian entities was improved by eliminating duplicate accounting for water used in intra-group transfers (between LUKOIL Group organisations). (3) The volumes of water discharge into underground formations include formation water supplied for injection into absorbing formations. (4) In order to optimize the presentation of data, taking into account the expansion of the reporting limits in 2019, the format of the presentation of information on water disposal for the receiving facility was specified in comparison with the format of the Report for 2018: water disposal to surface water bodies (214.7 million cubic meters) by Russian entities and 14.7 million cubic meters by foreign organizations) is presented by category of recipient. (5) The content of hazardous chemicals (hazard class II - mainly lead) in the total volume of wastewater discharged into water bodies was only 8 kg.
### Water discharges into surface water bodies by wastewater quality across LUKOIL Group, million cubic meters

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total water discharged into surface water bodies for LUKOIL Group, including:</strong></td>
<td></td>
<td></td>
<td>437.8</td>
</tr>
<tr>
<td>by Russian entities</td>
<td></td>
<td></td>
<td>236.4</td>
</tr>
<tr>
<td>by foreign entities (without ISAB and oil product supply entities)</td>
<td>NA</td>
<td>NA</td>
<td>13.1</td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>NA</td>
<td>209.9</td>
</tr>
<tr>
<td>• Oil product supply entities</td>
<td>NA</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Water discharge into surface water bodies by wastewater quality, including:</strong></td>
<td></td>
<td></td>
<td>405.6</td>
</tr>
<tr>
<td><strong>clean standard-quality wastewater for LUKOIL Group</strong></td>
<td></td>
<td></td>
<td>186.8</td>
</tr>
<tr>
<td>by Russian entities</td>
<td>206.2</td>
<td>186.3</td>
<td></td>
</tr>
<tr>
<td>by foreign entities (without ISAB and oil product supply entities)</td>
<td>NA</td>
<td>NA</td>
<td>8.9</td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>NA</td>
<td>3.3</td>
</tr>
<tr>
<td>• Oil product supply entities</td>
<td>NA</td>
<td>NA</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>wastewater treated to standard quality for LUKOIL Group</strong></td>
<td></td>
<td></td>
<td>20.6</td>
</tr>
<tr>
<td>by Russian entities</td>
<td>29.1</td>
<td>27.5</td>
<td>16.8</td>
</tr>
<tr>
<td>by foreign entities (without ISAB and oil product supply entities)</td>
<td>NA</td>
<td>NA</td>
<td>3.3</td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>NA</td>
<td>0.4</td>
</tr>
<tr>
<td>• Oil product supply entities</td>
<td>NA</td>
<td>NA</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>polluted wastewater for LUKOIL Group</strong></td>
<td></td>
<td></td>
<td>11.6</td>
</tr>
<tr>
<td>by Russian entities</td>
<td>1.1</td>
<td>0.9</td>
<td>10.7</td>
</tr>
<tr>
<td>by foreign entities (without ISAB and oil product supply entities)</td>
<td>NA</td>
<td>NA</td>
<td>0.9</td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>• Oil product supply entities</td>
<td>NA</td>
<td>NA</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Note.** Polluted water is insufficiently treated water and wastewater that is not treated.

### Specific discharges of insufficiently treated wastewater into surface water bodies by Russian entities of LUKOIL Group

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oil and gas extraction, cubic meters/tonne of oil equivalent in hydrocarbon resources</strong></td>
<td>0.008</td>
<td>0.004</td>
<td>0.004</td>
</tr>
<tr>
<td><strong>Oil refining, cubic meters/tonne of refined oil</strong></td>
<td>0.000</td>
<td>0.000</td>
<td>0.037</td>
</tr>
<tr>
<td><strong>Oil product supply, cubic meters/tonne of oil products sold</strong></td>
<td>0.004</td>
<td>0.003</td>
<td>0.002</td>
</tr>
<tr>
<td><strong>Transportation, cubic meters/tonne of oil, oil products transported</strong></td>
<td>0.008</td>
<td>0.009</td>
<td>0.008</td>
</tr>
</tbody>
</table>

**Notes.** (1) No insufficiently treated water is discharged into water bodies by petrochemical and power generating entities. (2) Specific discharges of insufficiently treated wastewater by oil refining entities are calculated based on the volume of production wastewater from LUKOIL-Ukhtaneftepererabotka, excluding any utility wastewater received from MUE Ukhtavodokanal.
CIRCULATING WATER

Facilities of power generating entities and oil-refining and petrochemical production facilities in Russia are equipped with circulating process water supply systems. New production facilities are required to be equipped with circulating and recycled water supply systems and treatment facilities.

Volumes of circulating water supply and reused water in LUKOIL Group entities, million cubic meters

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Russian entities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of circulating water supply</td>
<td>2,253.1</td>
<td>2,284.2</td>
<td>2,240.9</td>
</tr>
<tr>
<td>Volume of reused-sequentially used water</td>
<td>875.5</td>
<td>896.5</td>
<td>865.1</td>
</tr>
<tr>
<td><strong>Foreign entities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of circulating water supply (without ISAB)</td>
<td>NA</td>
<td>198.9</td>
<td>213.2</td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>NA</td>
<td>0.8</td>
</tr>
<tr>
<td>Volume of reused-sequentially used water (without ISAB)</td>
<td>NA</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>NA</td>
<td>1.0</td>
</tr>
</tbody>
</table>
EMISSIONS

Oil and gas production companies in Russia account for the biggest share of air pollutant emissions across LUKOIL Group (over 75%), mainly due to APG flaring, along with power generating entities burning fuel for power and heat generation.

Key initiatives of the Environmental Safety Program aimed at reducing pollutant emissions include:

- replacement or upgrade of equipment, application of the best available technology at production sites;
- application of emission capture and treatment systems;
- upgrade and construction of new generation capacities in power generating entities with improved automated systems for regulating combustion processes, heat losses and minimization of pollutant emissions.

Gross emissions from LUKOIL Group entities decreased in 2019 by 6.9% (within the boundaries for 2018).

In 2019, there was a significant decline in hydrocarbon emissions across LUKOIL Group within the boundaries for 2018 (by 17.6% compared to 2018), chiefly driven by changes in the calculation of maximum allowable emissions from oil and gas companies in Russia. It was taken into account that a significant part of oil and oil product storage tanks operated without significant changes in the liquid level, thus minimizing the “breathing” of tanks.

In addition, emissions of sulfur dioxide by Russian oil and gas production entities dropped by 24.6% due to the commissioning of the gas section of an oil treatment facility at the Vostochno-Lambeyskoye field at LUKOIL-Komi in 2018. The field is characterized by high hydrogen sulfide content in formation products.

1 “Breathing” of tanks means pressure fluctuations inside tanks for oil and oil product storage associated with the inflow or flow of liquid inside the tank (“large breathing”) or change in the ambient temperature (“small breathing”). Changes in pressure inside the tanks affect the volume of vapor emissions of petroleum products.
Gross emissions of pollutants into the atmosphere (net of CO₂) by LUKOIL Group entities, thousand tonnes

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total emissions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>451.3</td>
<td>420.3</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>8.3</td>
</tr>
<tr>
<td>• Foreign oil product supply entities¹</td>
<td>NA</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>including by pollutant type:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NOx emissions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>49.4</td>
<td>47.3</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>2.3</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>SO2 emissions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>37.5</td>
<td>35.6</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>5.2</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>solid particle discharges</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>14.9</td>
<td>15.0</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>0.1</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>CO emissions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>155.9</td>
<td>153.9</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>0.7</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>hydrocarbon emissions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>73.9</td>
<td>60.9</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>volatile organic compounds (VOC)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>115.5</td>
<td>105.9</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>emissions of other pollutants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>4.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>0.0</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Note. Data on LUKOIL Group are published in the Report starting from calendar year 2018 (reporting year).

¹ The data for 2019 represent the sum of data by pollutant types, each with a value less than 0.05.
### Gross air emissions (excluding CO₂) LUKOIL Group Russian organizations, thousand tonnes

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total emissions, including:</strong></td>
<td>502.5</td>
<td>433.3</td>
<td>402.3</td>
</tr>
<tr>
<td>• emissions NOx</td>
<td>49.6</td>
<td>47.1</td>
<td>46.2</td>
</tr>
<tr>
<td>• emissions SO₂</td>
<td>23.0</td>
<td>25.1</td>
<td>22.0</td>
</tr>
<tr>
<td>• emissions of solid substances</td>
<td>24.3</td>
<td>14.7</td>
<td>14.9</td>
</tr>
<tr>
<td>• emissions CO</td>
<td>216.6</td>
<td>153.9</td>
<td>152.2</td>
</tr>
<tr>
<td>• hydrocarbon emissions (including VOC)</td>
<td>187.8</td>
<td>188.3</td>
<td>165.7</td>
</tr>
<tr>
<td>• emissions of other pollutants</td>
<td>1.2</td>
<td>4.2</td>
<td>1.3</td>
</tr>
</tbody>
</table>

### Specific emissions of pollutants into the atmosphere by Russian entities of LUKOIL Group

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and gas extraction, kg/tonne of oil equivalent in extracted hydrocarbon resources</td>
<td>4.1</td>
<td>3.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Oil refining, kg/tonne of refined oil</td>
<td>0.9</td>
<td>0.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Petrochemicals, kg/tonne of processed raw materials</td>
<td>1.3</td>
<td>1.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Oil product supply, kg/tonne of oil products sold</td>
<td>0.8</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>Transportation, kg/tonne of oil, oil products transported</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Power generation, kg/tonne of oil equivalent in consumed fuel</td>
<td>2.6</td>
<td>2.9</td>
<td>2.9</td>
</tr>
</tbody>
</table>
### WASTE

Our main approach to industrial waste management lies in applying the most advanced technologies, preventing excessive build-ups of waste at LUKOIL Group entities’ facilities, and placing waste at specialized facilities that meet modern requirements.

Most production waste in Russia is made up of drilling cuttings and waste drilling fluids, which are generated during drilling and well operation. The volume of waste generated depends primarily on the scope of drilling and repair works carried out at wells.

#### Waste management by LUKOIL Group, thousand tonnes

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Waste at the beginning of the reporting year across LUKOIL Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>956</td>
<td>905</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>910</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>5</td>
</tr>
<tr>
<td><strong>Waste generation volume, total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>1,556</td>
<td>1,747</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>1,783</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>34</td>
</tr>
<tr>
<td><strong>Received from third parties</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>NA</td>
<td>5</td>
</tr>
<tr>
<td><strong>Amount of waste used, neutralized, and transferred to specialized entities, as well as landfill waste</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LUKOIL Group, including:</td>
<td>NA</td>
<td>1,751</td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>35</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>2</td>
</tr>
<tr>
<td><strong>Waste at the end of the reporting year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the boundaries for 2018</td>
<td>905</td>
<td>943</td>
</tr>
<tr>
<td>Within the boundaries for 2019, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• ISAB</td>
<td>NA</td>
<td>947</td>
</tr>
<tr>
<td>• Foreign oil product supply entities</td>
<td>NA</td>
<td>0</td>
</tr>
</tbody>
</table>

**Note.** Data on LUKOIL Group are published in the Report starting from calendar year 2018 (reporting year).

1 The calculation of the KPI does not take into account the volume of rock generated during shaft works at LUKOIL-Komi sites and placed at specialized waste dumps.
Waste generation and waste management in Russian LUKOIL Group entities, thousand tonnes

<table>
<thead>
<tr>
<th>Volume of Waste generated (excluding waste received from third parties)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,434</td>
<td>1,529</td>
<td>1,671</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume of waste used, neutralized and transferred to specialized organizations, as well as landfill waste</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,396</td>
<td>1,582</td>
<td>1,642</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Data is provided without rock waste.

Based on the respective environmental hazard classification, most generated waste is of Class 4 (low-hazard) or Class 5 (non-hazardous), and is mostly disposed.\(^1\)

The share of hazardous waste (Hazard Classes 1 and 2) that contains substances that are dangerous to human health and which can cause irreparable changes to environmental systems amounts to 0.01% of the total volume of generated waste; such waste is subject to mandatory disposal.

Hazard Class 3 (moderate) waste includes a portion of oil-containing waste (with an oil product content in excess of 15%) that is also subject to disposal. In 2019, the share of oil-containing waste (oil sludge generated as a result of cleaning of equipment and oil spill sites, Hazard Classes 3 and 4) increased from 13% to 18% compared to 2018 in the overall waste generation structure. This was due to the fact that oil-contaminated soils, which are largely washed at specialized facilities in LUKOIL-Komi and previously were not considered waste, are recorded as waste from 2019 following changes to the regional accounting methodology.

Waste that is stored long term (596 thousand tonnes) still mainly includes waste activated sludge, which was generated during the Saratovorgsintez plant’s wastewater treatment and placed at the deposit site. The site is included in the State Register of Waste Disposal Facilities.

The slight increase in the volume of waste as of the end of 2019 is due to the drilling operations plan: some wells under construction accumulate drilling waste for further disposal.

1–5 hazard class waste at Russian entities of LUKOIL Group in 2019, thousand tonnes

<table>
<thead>
<tr>
<th>Total waste across LUKOIL Group</th>
<th>Waste at the beginning of the year, total</th>
<th>Waste generated during the year, total</th>
<th>Waste at the end of the year, total</th>
</tr>
</thead>
<tbody>
<tr>
<td>886</td>
<td>1,671</td>
<td>920</td>
<td></td>
</tr>
</tbody>
</table>

including:

- oil-containing
  - 22
  - 294
  - 20

- drilling waste
  - 108
  - 1,131
  - 148

Hazard Class 1

- 0.0008
- 0.0330
- 0.0020

Hazard Class 2

- 0.0014
- 0.0937
- 0.0043

Share of waste of Hazard Classes 1 and 2

- 0.0002%
- 0.0076%
- 0.0007%

Hazard Class 3 (oil-containing)

- 23
- 253
- 21

Share of waste of Hazard Classes 1, 2, and 3

- 3%
- 15%
- 2%

Hazard Class 4

- 831
- 1,287
- 868

Hazard Class 5

- 32
- 131
- 31

**Notes.** Most substances categorized as hazardous waste in the international accounting system are contained in waste of Hazard Classes 1 and 2. In Russia, waste of Hazard Classes 1–3 is considered hazardous, the Hazard Class 4 waste low-hazard, and Hazard Class 5 waste non-hazardous. The hazard class is determined based on criteria approved by the Russian Ministry of Natural Resources and Environment.

\(^1\) Here and later, the term “disposal” is used to mean “use, neutralization, landfilling, or handing over to a specialized organization for these purposes.”
The Company applies pitless well-drilling concept in vulnerable natural areas in Russia, according to which generated drilling waste is not stored/landfilled at drill sites, but sent for use or neutralization.

We supervise the quality of waste disposal works carried out by contractors, monitoring their waste-handling methods, the state of the in-process control system, and the availability of the necessary resources to fulfill contractual obligations.

In order to minimize environmental impact from hazardous waste generation, new waste disposal facilities are being built by Lukoil and existing ones are being modernized.

The new disposal facilities will facilitate improvements to waste management. In 2019, such facilities were built at the Pyakyakhinskoye field in Western Siberia and at the Shchelyayurskoye field in the Komi Republic; a thermal waste treatment plant was purchased for the Stavrolen plant.

**PRE-PRIVATIZATION DAMAGE MANAGEMENT**

By the time of the privatization of a number of assets in the field of oil production and refining in Russia and Eastern Europe, significant volumes of oil-containing waste (oil sludge in special sludge collectors and evaporation ponds) had been accumulated at production facilities. They are called “pre-privatization environmental damages” in the Company. LUKOIL, at its own expense, disposes of them at most enterprises. As of 2019, such waste had been fully processed at the refinery in Romania, as well as at LUKOIL-Western Siberia and RITEK in Russia.

**Oil refinery in Romania**

In 2006-2013, around 450 thousand cubic meters of pre-privatization oil waste was disposed of. Contaminated soil was cleaned and removed from the walls and bottom of sludge collectors. Reclamation was carried out at the site of the former facility, grasses and shrubs were sown.

**Oil refinery in Bulgaria**

The refinery undertook to remedy of pre-privatization oil waste in accordance with an agreement signed in 2000. Such works are financed by the state in Bulgaria. In 2019 18 thousand tonnes of oil waste were disposed of. This work continues.

**Russian refineries**

In 2019, work at the Volgograd refinery continued to neutralize pre-privatization oil waste, and 50 thousand tonnes were disposed of. It remains to process around 39 thousand tonnes of waste.

### Pre-privatization waste, thousand tonnes

<table>
<thead>
<tr>
<th></th>
<th>Waste at the beginning of reporting year</th>
<th>Waste eliminated in reporting year</th>
<th>Waste at the end of reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2018</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LUKOIL Group entities, total, including:</td>
<td>773</td>
<td>107</td>
<td>666</td>
</tr>
<tr>
<td>• Russian</td>
<td>319</td>
<td>50</td>
<td>269</td>
</tr>
<tr>
<td>• foreign</td>
<td>454</td>
<td>57</td>
<td>397</td>
</tr>
<tr>
<td><strong>2019</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LUKOIL Group entities, total, including:</td>
<td>666</td>
<td>69</td>
<td>602*</td>
</tr>
<tr>
<td>• Russian</td>
<td>269</td>
<td>51</td>
<td>223*</td>
</tr>
<tr>
<td>• foreign</td>
<td>397</td>
<td>18</td>
<td>379</td>
</tr>
</tbody>
</table>

*Note. (1)* In implementing the scheduled measures to eliminate pre-privatization damage at LUKOIL-Volgogradneftepererabotka for 2020, the scope of pre-privatization damage was revised as part of a geodesic survey at the end of 2019. Thus, the total pre-privatization damage was changed from 218 thousand tonnes to 223 thousand tonnes. (2) The amount of waste disposal during the pre-privatization period in foreign entities (in Bulgaria) is determined by the financing of the state, which is the owner of the waste in accordance with local legislation.
# BIODIVERSITY CONSERVATION

In view of the importance of biodiversity conservation, especially in vulnerable natural areas, the Company has undertaken not to conduct operations in World Heritage sites and IUCN (International Union for Conservation of Nature) Protected Areas of categories I-IV. At each stage of a project, we strive to balance any impacts that our operations might have and we implement a variety of projects and activities to preserve ecosystems.

## MANAGEMENT OF BIODIVERSITY ISSUES

<table>
<thead>
<tr>
<th>ELEMENTS OF THE MANAGEMENT SYSTEM</th>
<th>DESCRIPTION</th>
<th>CORPORATE DOCUMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMMITMENTS AND PRINCIPLES</strong></td>
<td>We seek to avoid conducting work in habitats of valuable and highly protected plant and animal species or to minimize such impact where it cannot be avoided. Our principle is “prevention – mitigation – restoration – compensation.”</td>
<td>LUKOIL Group’s HSE Policy in the 21st Century approved by Resolution of PJSC LUKOIL Management Committee dated 18 May 2018</td>
</tr>
<tr>
<td><strong>IMPACT ASSESSMENT MECHANISMS</strong></td>
<td>• Assessment of the impact of planned projects on biodiversity is undertaken during the preparation of project documents. • Environmental and satellite monitoring is organized.</td>
<td>Corporate Standard STO LUKOIL 1.6.9-2019 “Health, Safety and Environment Management System. Pre-project and Project Documentation. Business Case Preparation. General Requirements”</td>
</tr>
<tr>
<td><strong>RESPONSE MECHANISMS</strong></td>
<td>A center has been set up to deal with the impact of emergencies on animals, birds and flora and to implement measures to rescue them in the Caspian Sea.</td>
<td>“Plan for Prevention and Remedy of Animal Habitat Pollution with Oil and Oil Products in the Event of a Spill from LUKOIL-Nizhnevolzhskneft Facilities”</td>
</tr>
<tr>
<td><strong>PROGRAMS, PROJECTS AND INITIATIVES</strong></td>
<td>The Biodiversity Conservation Program is in place for facilities operating in the Arctic zone of Russia. We are guided by the Arctic Council’s document “Guidelines for Oil and Gas Companies on the Arctic Shelf.”</td>
<td>The Program was approved by Order of PJSC LUKOIL No. 136 dated 23 July 2015. As a follow-up to this Program, action plans on biodiversity conservation have been developed for entities operating in the Arctic region (LLC Varandey Terminal, LLC LUKOIL-Komi, LLC LUKOIL-West Siberia). For entities operating in other regions, biodiversity conservation measures form an integral part of the Environmental Safety Program.</td>
</tr>
<tr>
<td><strong>COLLABORATION</strong></td>
<td>Russia: joint projects with WWF Russia, nature reserves and specially protected areas.</td>
<td>Cooperation agreements</td>
</tr>
<tr>
<td><strong>FURTHER INFORMATION</strong></td>
<td>The results of environmental monitoring have been published annually on the corporate website since 2003.</td>
<td></td>
</tr>
</tbody>
</table>
Our goal is to preserve the diversity of natural biosystems in the regions where the Company operates and to ensure that they are treated with due care, so that the ability to regenerate is not threatened.

In 17 years of observation, there have been no significant impacts from activities of the Company’s facilities on the marine environment that would require response measures.

**LAND REMEDIATION**

The remediation of oil-contaminated land is carried out in all areas of the Company’s operations. In 2019, 56.6 hectares of land were handed over to the State Commission (in 2018: 50.3 hectares), where all stages of rehabilitation had been completed; as a result, the content of oil products was reduced to the required level.

The remediation comprises the following stages:

- technical (collection of as many pollutants as possible from the surface, agro-technical manipulations, application of oil-oxidizing bio-preparations, loosening for better aeration)
- biological (sowing seeds or seedlings, fertilizing).

If the terrain implies washing out and further spreading of residual contamination, the contaminated layer is removed and taken to specialized bioremediation sites, and clean soil is brought to the reclaimed site where biological remediation is carried out.

Biodiversity conservation activities:

- rehabilitation of oil-contaminated land
- “zero discharge” when working at offshore facilities
- release of fish fry into rivers as a compensation for the impact on aquatic bioresources
- building fish protection systems near HPPs and installation of bird protection devices on power lines
- gardening and landscaping at production sites
- clearing the channels of small rivers, including at underwater crossings of pipeline systems
- garbage collection activities in most regions of operation
In 2019, LUKOIL became a member of the Working Group of the Ministry of Natural Resources and Environment of the Russian Federation for the implementation of the federal project “Conservation of Biological Diversity and Development of Ecotourism.”

The Company initiated round tables on the conservation of saiga, one of the oldest representatives of fauna. At the end of the events, a decision was made to launch a new project jointly with the Ministry. It will be executed in the “Black Lands” nature reserve in the Republic of Kalmykia (which has the status of a world-class biosphere reserve) and the “Stepnoi” reserve in the Astrakhan Region.

LUKOIL has a longstanding working relationship with these reserves, providing support as part of the Competition for Social and Cultural Projects. Thanks to several grants, the level of poaching in Kalmykia has been reduced, in particular through educational events for residents.

In 2020, a saiga conservation action plan will be elaborated and incorporated in the Environmental Safety Program. A long-time partner of the Company - WWF-Russia - will join in the implementation of the plan.

LUKOIL-Nizhnevolzhskneft is developing oil and gas fields in the northern sector of the Caspian Sea. Despite long-term human influence, the Caspian region still has one of the most valuable ecosystems in the world, and the marine environment and coastal areas exhibit high biodiversity. There are also valuable wetlands in the Volga River delta in the northern Caspian Sea.

In order to mitigate negative impacts on animals and birds in production areas, a rehabilitation facility for animals affected by oil pollution was set up with LUKOIL support. The facility is located in the delta of the Volga River at the production base of the Astrakhan Directorate of Specially Protected Areas. It has a mobile rescue station, a receiving and cleaning station for contaminated animals and birds, and enclosures for keeping them. Trained employees of the facility take no more than three hours to get to an animal or bird that needs help.

Rescue operations are managed by the Animal Rescue Group, which is part of LUKOIL-Nizhnevolzhskneft Emergency Commission. Since its creation, the facility has been used solely for training purposes, as no rescue operations have so far been required.
LUKOIL Uzbekistan Operating Company LLC operates in the Republic of Uzbekistan under production sharing agreements for the Kandym group of fields, the Khauzak-Shady and Kungrad, as well as for sites in the South-West Gissar and Ustyurt region.

Production facilities are located in the desert zone and in foothill areas, in close proximity to a state ornithological reserve (Dengizkul Lake, a water object on the Ramsar Convention list) and the Khoja-Davlet ornithological territory.

Over the seven years of LUKOIL operations in these territories, programs have been implemented to preserve the ecosystem of Lake Dengizkul (initially, the action plan was developed in 2012 and revised and updated in 2016) and the Khoja-Davlet territory (since 2016).

Ongoing ornithological monitoring is carried out with the participation of international experts: 40 observation points along the lake banks have been set up; permanent power transmission line routes and the Khoja-Davlet territory inspection have been determined. The monitoring process involves six stages throughout the year based on the biological cycles of bird life. The developed methodology is coordinated with the local State Biological Control Service of the State Committee for Nature Protection of Uzbekistan. The distribution, characteristics and condition of bird habitats have been studied.

Bird protection devices are installed on power transmission lines, their functioning, as well as the integrity of markers, information boards and warning signs are checked.

Educational activities are organized for staff and local residents (stalls are set up, information campaigns are held), and access to the territories adjacent to the production facilities is restricted to the staff and contractors.

Work is carried out with contractors, bird habitat protection requirements are included in contracts, briefings are held, and biodiversity conservation issues are discussed at workshops.

The Company works with a local eco-center Jeyran where animals in need of help are sent.

Upon the completion of construction works, the biological rehabilitation of disturbed lands was performed at all sites, and saxaul and perennial grasses planted.

In the opinions of ornithologists, Lake Dengizkul retains its importance as a habitat for rare species listed in the Red Book of the Republic of Uzbekistan, and an area where waterfowl rest during migration (over 20 thousand birds). LUKOIL’s biodiversity conservation program in these territories has helped mitigate the impact of production activities on local fauna. The survey results are annually presented to stakeholders and the State Committee for Nature Protection of Uzbekistan.

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1 In January 2019 the State Committee for Nature Protection of Uzbekistan was reorganized into the State Committee of the Republic of Uzbekistan on ecology and environmental protection.

2 Endangered species include the Dalmatin pelican, the stiff-tailed duck, the white-eyed pochard, the marbled duck, the velvet scoter, the pale harrier, the imperial eagle, the houbara bustard, the black-tailed godwit and curlew, the white pelican, the little cormorant, the little egret, the mute swan, the spoonbill, the glory ibis, the flamingo, the steppe eagle, and the white-tailed eagle.
WHY DOES THE COMPANY SEE THE INTRODUCTION OF THE LEADERSHIP PHILOSOPHY AS A KEY STEP, AND HOW DOES THIS APPROACH HELP ADAPT TO EXTERNAL CHANGES?

Today, the oil and gas sector is facing new challenges that can significantly change professional areas of activity and, therefore, specifics of HR management and social work.

In 2019 the Company launched a personnel performance and efficiency management system, based on the principles of modern leadership philosophy. This system introduces new approaches that reshape the role of staff in production and management processes. We already have a number of project teams working in the Exploration and Production business segment, and a digital environment is being created to facilitate their coordinated activities. Once we have achieved sustained results in this regard, we will gradually roll out the approach across other business segments.
WHAT DIGITAL TECHNOLOGIES ARE BEING ALREADY USED IN HR MANAGEMENT, AND HOW EFFECTIVE HAVE THEY BEEN IN THE CURRENT SITUATION?

Significant efforts have been taken to implement digital technologies, which makes it possible to rapidly and efficiently organize personnel management activities in various conditions. In particular, this includes, when necessary, providing remote access to corporate systems, and automated workplaces, which creates greater Company flexibility and mobility and accords with international best practices.

In order to boost the efficiency of employees’ work and to encourage them to use the distance learning system, special courses are developed and training events held to enhance industry-specific knowledge, and improve the knowledge of foreign languages and management skills. Thematic online trainings and webinars are regularly held on topical issues such as career building, negotiations, time management, motivation, increasing psychological resilience, and stress management.

The Corporate Knowledge Management System is developing actively, allowing employees from various regions to share best practices. The Company has information services offering necessary and beneficial information to employees.

In addition, 2019 saw the development and deployment of AR LUKOIL, a mobile app facilitating training in an augmented reality mode and corporate competitions, where each Company employee can participate.
### KEY CHANGES AND RESULTS IN THE REPORTING YEAR

<table>
<thead>
<tr>
<th><strong>OVER</strong></th>
<th><strong>258 THOUSAND PERSON-COURSES OF TRAINING WERE COMPLETED</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KEY MANAGEMENT PERSONNEL ARE BEING DEVELOPED</strong></td>
<td></td>
</tr>
<tr>
<td><strong>THE AVERAGE SALARY AT RUSSIAN ENTITIES IN SIGNIFICANT REGIONS OF OPERATION WAS AT LEAST 1.5 TIMES HIGHER THAN THE AVERAGE SALARY IN THOSE REGIONS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>EMPLOYEES WERE HIRED IN TWO NEW COUNTRIES: MOROCCO AND NIGERIA</strong></td>
<td></td>
</tr>
</tbody>
</table>

### CONTEXT

According to International Labor Organization reports\(^1\), the world of work is currently undergoing profound changes. Globalization and market liberalism in the late twentieth century, especially in the mining industry, fostered favorable economic conditions and employment structures in many countries. However, digitalization, changing demographics and climate change, and a transition to a green economy are altering the fundamentals of the labor market. The following trends have been cited as being the most important.

Automation and robotics reduce the need for labor as production grows, and increase how selective employers can be when it comes to the hiring and skill training of employees. As a result, various forms of part-time employment are becoming more widespread. This can have both positive consequences for employees (in the form of a better work-life balance) and negative ones (lower incomes, no full employment guarantees, etc.). Therefore, an important task for employers is to help employees overcome the challenges inherent in transitioning to new work conditions.

The ILO Global Commission on the Future of Work has created a human-centered agenda that highlights three main goals: increasing investment in people's skills, strengthening labor guarantees and expanding social dialogue, and increasing investment to ensure decent and sustainable working conditions. LUKOIL supports these objectives and has many programs to meet these goals.

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# ELEMENTS OF THE MANAGEMENT SYSTEM

## GOALS, PRINCIPLES

The main task is to create a management system that will give the Company the stable status of "employer of choice" in the labor market.

The HR Policy of OJSC LUKOIL approved by Minutes No. 15 of the Management Committee of OJSC LUKOIL on 19 May 2013

## PRIORITIES/CORPORATE STANDARDS

The main principles in the area of employment relations are:
- respect for human rights
- equal rights and opportunities for employees
- compliance with statutory requirements
- respect for the culture and customs of countries where we operate
- cooperation with trade unions and employees

The Code of Business Conduct and Ethics approved by Minutes No. 17 of the Board of Directors of PJSC LUKOIL on 11 December 2018
The Corporate Culture Rules approved by Minutes No. 31 of the Management Committee of OJSC LUKOIL on 27 December 2010
The Social Code of PJSC LUKOIL approved by Minutes No. 16 of the Board of Directors of PJSC LUKOIL on 24 October 2017

## KEY PERFORMANCE INDICATORS

Labor productivity

A set of KPIs approved by Minutes No. 26 of the Management Committee of PJSC LUKOIL on 14 December 2015

## TARGETED PROGRAMS, PROJECTS AND INITIATIVES

The main areas of social policy:
- the remuneration and incentive system
- training
- social support
- working with young professionals and employees

Programs in all the areas have been approved

## FURTHER INFORMATION

More details are available on our corporate website:

The Social Code of PJSC LUKOIL:
The first quarter of the 21st century saw major changes in the Company’s external and internal environment. According to experts, the dominant trends are economic and technological change, increased digitalization, and changes in the workforce structure. The internal environment is also evolving: generations of employees are changing, new skills and aptitudes are needed, and younger workers are putting forward new ideas and inventions. To ensure that the Company adapts as much as possible to the new reality, we are making improvements to our corporate culture (values and conduct), as well as to the system of relations in place between employer and employees.

**LEADERSHIP PHILOSOPHY**

The first quarter of the 21st century saw major changes in the Company’s external and internal environment. According to experts, the dominant trends are economic and technological change, increased digitalization, and changes in the workforce structure. The internal environment is also evolving: generations of employees are changing, new skills and aptitudes are needed, and younger workers are putting forward new ideas and inventions. To ensure that the Company adapts as much as possible to the new reality, we are making improvements to our corporate culture (values and conduct), as well as to the system of relations in place between employer and employees.

**LEADERSHIP DEVELOPMENT IS A KEY GLOBAL HR TREND.**

The President of PJSC LUKOIL, Vagit Alekperov, has decided to begin implementing leadership and engagement tools to facilitate a reliable and sustainable future for LUKOIL. Forward-looking changes are designed to ensure that the Company maintains its leading position in the industry.
Over half of all employees (around 60%) are employed in the Refining, Marketing and Distribution business segment and more than a third (35.6%) work at exploration and production entities. 13.7% of employees work on a rotational basis.

In 2019, the turnover rate of LUKOIL Group decreased by 0.3 p.p. compared to 2018. For foreign entities the turnover rate remains relatively stable for the period between 2017 and 2019 (11.7% in 2019). In Russian entities some growth in 2018 was due to the reorganization of the Oil Product Supply in Russia business sector; after 2018 the indicator began to decline (turnover rate was 6.6% in 2019).

There is no gender discrimination in the Company. Despite the specifics of the oil and gas industry and the traditional prevalence of men working in it, LUKOIL has maintained a balanced gender structure for many years. When hiring employees, we provide equal opportunities to men and women: the structure of newly hired employees in 2019 reflects a parity of results in this area.

1. This indicator reflects employee headcount; the average headcount was over 101 thousand employees.
2. From this point onward the calculation is based on the number of employees as at 31 December in the reporting year (unless otherwise indicated).
3. The “Managers” category includes: CEO of a LUKOIL Group entity, Deputy Heads, Chief Engineer, Chief Accountant, Head of a branch, TPU, or another standalone business unit, other managers.
CHARACTERISTICS OF PERSONNEL IN 2017-2019

Breakdown of LUKOIL Group employees by category, %

- Managers: 12%
- Specialists: 27%
- Workers and other personnel: 61%

Note. The breakdown of employees by category did not change over the period from 2017 to 2019.

Breakdown of LUKOIL Group employees by age, %

- Under 35: 40% (2017), 39% (2018), 37% (2019)
- 36 to 40 years: 16% (2017), 16% (2018), 17% (2019)
- 41 to 50 years: 27% (2017), 28% (2018), 28% (2019)
- 51 and above: 17% (2017), 17% (2018), 18% (2019)

Breakdown of LUKOIL Group employees by region, %

- Europe: 83.7%
- Asia: 2.8%
- Middle East and Africa: 2.6%
- North America: 0.1%

Note. Data are based on the number of employees as at 31 December 2019.

Breakdown of LUKOIL Group employees by type of activity, %

- Oil and gas production: 36%
- Oil product supply, Transportation: 35%
- Power generation: 12%
- Oil refining and petrochemicals: 12%
- Corporate and Other: 5%

Note. The Oil product supply, Transportation category also includes other organizations from the Refining, Marketing and Distribution business segment.

LUKOIL Group employee headcount and turnover

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headcount as at 31 December each year, people</td>
<td>107,405</td>
<td>105,991</td>
<td>105,624</td>
</tr>
<tr>
<td>Average headcount, people</td>
<td>103,647</td>
<td>102,508</td>
<td>101,374</td>
</tr>
<tr>
<td>Turnover rate, %</td>
<td>6.7</td>
<td>7.8</td>
<td>7.5</td>
</tr>
<tr>
<td>Number of new hires, people</td>
<td>20,101</td>
<td>26,358</td>
<td>16,624</td>
</tr>
</tbody>
</table>

Note. The formula for calculating the turnover rate is given in Appendix 7.
**EMPLOYMENT AND DIVERSITY**

We endeavor to apply uniform principles and approaches to working with our employees in all countries and regions where we operate, taking into account local specifics and features. The principles and standards set forth in our HR policy and other local regulations are mandatory for all LUKOIL Group entities.

In local labor markets LUKOIL provides job opportunities for suitably qualified candidates, including for executive positions. Our basic approach is to employ the best professionals, while in foreign countries we strive to employ as many local professionals as possible, and provide them with employee training where necessary.

If personnel with the necessary qualifications and capabilities are not available on local markets, Russian employees are appointed to managerial positions to promote the same corporate culture throughout LUKOIL Group and to expand their capabilities by gaining professional experience in international projects.

The Company has a pool of employees who can be rotated. Managers and specialists with the necessary experience and knowledge to be able to successfully implement projects are included in this pool and can be seconded to various LUKOIL Group entities and projects to help achieve respective corporate goals. Thus the risk of a loss to efficiency is mitigated and the need for highly qualified and managerial personnel is promptly satisfied, regardless of the situation on local labor markets. At the same time, the opportunity to work in different business and cultural environments is a motivation for employees who value diversity.

We provide equal career opportunities for all employees. The Company regularly monitors gender diversity across various categories of personnel. In 2019, women held 26% of management positions. The share of women holding management positions at all levels was 8% of the total number of female employees. In addition, we respect the wishes of our employees to achieve a work-life balance: for example, in LUKOIL Group entities parental leave is granted to both women and men. We also encourage employee initiatives to set up groups according to their own interests; for example, there has been a women’s club at the refinery in Nizhny Novgorod since 2013.

<table>
<thead>
<tr>
<th>Information about local managers in foreign LUKOIL Group entities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employee category</strong></td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>Senior managers, people</td>
</tr>
<tr>
<td>• including locals</td>
</tr>
<tr>
<td>Share of local senior managers, %</td>
</tr>
</tbody>
</table>

**Notes.** (1) Senior managers include the CEO (Managing Director / General Director) and their deputies for functional areas. (2) Locals mean employees that are permanently registered in or are citizens of foreign countries. (3) Data are given for significant regions. For a definition of significant regions see Appendix 7.

**Share of female managers in the total number of managers at corresponding level in LUKOIL Group entities, %**

<table>
<thead>
<tr>
<th>Employee category</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO of a LUKOIL Group entity</td>
<td>1.1</td>
</tr>
<tr>
<td>Deputy Heads, Chief Engineer, Chief Accountant</td>
<td>17.5</td>
</tr>
<tr>
<td>Head of a branch, TPU, or another standalone business unit</td>
<td>4.5</td>
</tr>
<tr>
<td>Head of structure unit</td>
<td>26.3</td>
</tr>
</tbody>
</table>
SOCIAL POLICY

We strive to maintain an attractive employee remuneration system so as to facilitate social stability and to enhance the quality of life of our employees and their families. Company obligations which supplement those of the laws of the Russian Federation and international standards are set out in the Social Code of PJSC LUKOIL. Services under employee social programs are provided in both Russian and foreign entities, and employees can participate in these programs irrespective of whether they are employed full or part-time.

LUKOIL Group staff costs, RUB million

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total, including:</strong></td>
<td>142,141</td>
<td>145,706</td>
<td>147,284</td>
</tr>
<tr>
<td>• payroll</td>
<td>132,022</td>
<td>136,475</td>
<td>138,180</td>
</tr>
<tr>
<td>• social benefits and payments, social support for employees</td>
<td>9,294</td>
<td>8,403</td>
<td>8,125</td>
</tr>
<tr>
<td>• training</td>
<td>825</td>
<td>828</td>
<td>979</td>
</tr>
</tbody>
</table>

Note. For a definition of payroll see Appendix 7.

Scope of services provided under LUKOIL Group social programs

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total for LUKOIL Group, including:</strong></td>
<td>468,150</td>
<td>430,323</td>
<td>456,495</td>
</tr>
<tr>
<td>• Health protection, services</td>
<td>325,711</td>
<td>286,746</td>
<td>322,795</td>
</tr>
<tr>
<td>• Social support for families with children, services</td>
<td>65,311</td>
<td>62,241</td>
<td>59,480</td>
</tr>
<tr>
<td>• Non-state pension coverage, people</td>
<td>12,453</td>
<td>12,263</td>
<td>12,115</td>
</tr>
<tr>
<td>• Support for pensioners, people</td>
<td>43,281</td>
<td>44,990</td>
<td>42,825</td>
</tr>
<tr>
<td>• Other, services</td>
<td>21,394</td>
<td>24,083</td>
<td>19,280</td>
</tr>
<tr>
<td><strong>Specifically for Russian entities, including:</strong></td>
<td>402,709</td>
<td>357,277</td>
<td>387,154</td>
</tr>
<tr>
<td>• Health protection, services</td>
<td>276,063</td>
<td>229,781</td>
<td>267,830</td>
</tr>
<tr>
<td>• Social support for families with children, services</td>
<td>61,461</td>
<td>58,664</td>
<td>55,308</td>
</tr>
<tr>
<td>• Non-state pension coverage, people</td>
<td>5,795</td>
<td>6,363</td>
<td>6,345</td>
</tr>
<tr>
<td>• Support for pensioners, people</td>
<td>43,116</td>
<td>44,884</td>
<td>42,689</td>
</tr>
<tr>
<td>• Other, services</td>
<td>16,274</td>
<td>17,585</td>
<td>14,982</td>
</tr>
</tbody>
</table>

Note. A service provided to an employee under a social programs constitutes the provision of various types of social assistance and support at the employee’s request in kind (e.g. vaccinations) or in cash, to pay for the service or to compensate for its cost.
WAGES AND SALARY

In Russia, the minimum subsistence level is regulated by law, as is the minimum wage and how often it is paid. LUKOIL enters into voluntary collective agreements governing minimum wage rates, bonuses, and other types of remuneration. Such contracts cover 96% of employees in the Group’s Russian entities.

Under an agreement between PJSC LUKOIL and trade unions, the minimum rate of pay is at least equal to the minimum subsistence level for the working population. Rates of pay depend on performed duties, the complexity of work tasks and level of responsibility, and are established for each employee taking into account their education and practical experience.

In 2019 the minimum rate of pay in significant regions of operation in Russia was in line with or exceeded the regional minimum wage. Minimum rates of pay are the same for men and women.

The initial salary at LUKOIL Group foreign entities is at least equal to the minimum wage rate established by the labor laws of a country where LUKOIL Group operates, collective agreements, and/or local regulations.

In 2019, the average salary in LUKOIL Group’s Russian entities in significant regions of operation was at least 1.5 times higher than the average salary in the same regions.

Average salary in 2019 in Russia, RUB

<table>
<thead>
<tr>
<th>Significant regions of operation</th>
<th>Average salary at LUKOIL Group’s entities in Russia</th>
<th>Average salary in the region (Jan-Dec 2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astrakhan Region</td>
<td>63,877</td>
<td>35,792</td>
</tr>
<tr>
<td>Volgograd Region</td>
<td>74,919</td>
<td>32,737</td>
</tr>
<tr>
<td>Kaliningrad Region</td>
<td>89,645</td>
<td>34,357</td>
</tr>
<tr>
<td>Krasnodar Territory</td>
<td>61,633</td>
<td>36,155</td>
</tr>
<tr>
<td>Nizhny Novgorod Region</td>
<td>82,664</td>
<td>35,692</td>
</tr>
<tr>
<td>Perm Territory</td>
<td>83,730</td>
<td>38,562</td>
</tr>
<tr>
<td>Komi Republic</td>
<td>112,556</td>
<td>53,162</td>
</tr>
<tr>
<td>Saratov Region</td>
<td>57,996</td>
<td>28,503</td>
</tr>
<tr>
<td>Stavropol Territory</td>
<td>60,614</td>
<td>31,867</td>
</tr>
<tr>
<td>Khanty-Mansi Autonomous Area – Yugra</td>
<td>114,185</td>
<td>74,525</td>
</tr>
</tbody>
</table>

The employee incentive system in Russian entities also includes benefits and compensation established under an agreement between the employer and the trade union, collective agreements, and other local regulations. A significant part of benefits and compensations is geared towards enhancing the quality of life of our employees through maintaining their health, providing support to them and their families, and offering them housing assistance. Social support is also provided to former employees who have retired from the Company.
VOLUNTARY HEALTH INSURANCE

Voluntary health insurance programs cover over 90% of employees at Russian entities. Employees can at their own expense widen the coverage of health insurance programs to meet their specific needs.

PENSION BENEFITS

Russian entities finance a corporate-defined pension plan that covers the majority of employees. One type of plan is based on the number of years of service to the Company, the salary level as of the end of 2003, and any awards received during the entire period of employment. The other type of pension plan is calculated in proportion to the salary level. These plans are financed solely by LUKOIL Group entities. Also, employees have an opportunity to make pension savings with the Company’s participation (up to 4% of employees’ annual salary). JSC Non-State Pension Fund Otkritie manages the pension plan assets of LUKOIL Group entities and makes pension payments.

Employees of foreign entities are provided pension benefits in line with the laws of the country of operation as well as the local regulations of entities. Some pension plans are financed solely by employers, while others are based on contributions from both employees and employers.

HOUSING PROGRAM

The housing program is implemented in accordance with the Basic Housing Policy of LUKOIL Group and is aimed at providing housing to production personnel (coming from other regions with a job offer and young professionals). The Company also helps employees in this area by partial payment of interest on bank loans. In 2019, 1.4 thousand employees participated in the program.

Pension benefits and pension plans

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension liabilities, LUKOIL Group, RUB million</td>
<td>10,367</td>
<td>8,910</td>
<td>12,544</td>
</tr>
<tr>
<td>Number of former employees receiving a corporate pension, in Russia, people</td>
<td>46,294</td>
<td>49,441</td>
<td>52,854</td>
</tr>
<tr>
<td>Average non-state pension level in Russia, RUB</td>
<td>2,240</td>
<td>2,272</td>
<td>2,134</td>
</tr>
</tbody>
</table>
TRAINING AND DEVELOPMENT

Developing human potential is a long-term priority of the Company’s HR Policy. Our corporate training system is focused on the Company’s strategic plans and its need for employees with certain qualifications and competencies. Training programs serve as a tool for improving productivity, quality, and safety of labor and for minimizing risks associated with uninformed actions of employees.

TRAINING PROGRAMS

Our training system deploys a wide range of tools and methods to train employees, including full-time study at state educational institutions and private centers, corporate professional development programs, corporate internships and training courses, etc. In addition, the Company uses corporate trainers and mentors. Both training and mentorship methods are used when introducing new management approaches, and also serve to foster a good mutual relationship with employees.

Employees can submit a training application to their line manager. After approval under established procedures, the application is incorporated into the Personnel Training Plan.

In order to further improve the system in place for continuous corporate training, the Company plans to:

- Develop criteria for organizing employees into groups for training and development purposes
- Ascertain the professional, technical, managerial, and behavioral requirements that are common to these groups
- Identify training and development needs
- Elaborate an integrated corporate training and development program for various groups of employees

Employee training at LUKOIL Group entities

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of trained employees, people</td>
<td>70,183</td>
<td>74,684</td>
<td>78,026</td>
</tr>
<tr>
<td>Amount of training, person-courses</td>
<td>193,761</td>
<td>243,467</td>
<td>258,728</td>
</tr>
<tr>
<td>Average number of training hours per trained employee, hours</td>
<td>NA</td>
<td>NA</td>
<td>84</td>
</tr>
<tr>
<td>Average annual training costs per trained employee, RUB</td>
<td>NA</td>
<td>NA</td>
<td>12,548</td>
</tr>
</tbody>
</table>

Note. (1) The growth in training in 2018-2019 was due to the organization of mass training in civil defense and emergency protection and the implementation of corporate and compulsory training programs on occupational safety and information security. (2) The average number of training hours per trained employee = Total number of hours of training events held at Russian and foreign entities / Total number of employees that received training in the reporting year. Average annual training costs per trained employee = Total costs to train employees that received training in the reporting year / Total number of employees that received training in the reporting year.
DISTANCE LEARNING

In 2019, the total number of training hours using distance learning programs was more than 2 million.

The main goal of the DLS is to ensure that employees have the required level of knowledge. This goal is achieved through training and communication, assessment, and testing. The DLS is used to achieve large-scale training objectives, to test employee knowledge for compliance with corporate and statutory requirements, and to develop professional and managerial competencies, as well as the personal effectiveness skills of employees.

MANAGEMENT TALENT POOL

The Company is constantly updating the reserve pool of talent, which consists of the most experienced and promising employees. All workers of the Company have equal opportunities to be credited to the pool, provided that they perform professional duties at the appropriate level systematically. An individual development plan is elaborated for each employee included in the pool in order to gain the necessary competencies.

To create the pool of executive candidates capable of taking up leadership positions in the Company, management succession planning is carried out. This process includes the following steps:

- Identifying employees that have high leadership potential, and conducting a comprehensive assessment of their skills;
- Preparing tailored programs for employees, including structured training, internships, rotations, assignments to special projects, and mentoring by a senior employee (top manager).

COMPETENCY CENTERS

In accordance with Federal Law No. 238-FZ dated 3 July 2016 “On Independent Appraisals of Competencies” and a related decision from the Company’s President, in 2016 the Center for Assessment of Competencies was established, and in 2017 it was authorized to conduct independent assessments by the Council on Professional Competencies in the Oil and Gas Complex. The independent assessment of employee capabilities is carried out for key professions and positions. Professional exams are administered by qualified experts who confirm the professional level of employees or identify gaps in their knowledge, skills, and capabilities, including in the area of industrial and occupational safety.

Based on the results of these exams, tailored recommendations are elaborated to prepare targeted training programs. Due to the special training sites now established in the regions, the training of personnel has become practice-oriented.

In 2019, over 2 thousand people (and more than 3 thousand in the space of two years) from production, refining, and distribution organizations took part in such assessments. The assessment covered the following professions: oil and gas production operators, process unit operators, and commercial operators. In September 2019, the Company began to assess the capabilities of specialists in oil and gas refinery processing, the maintenance and repair of refinery equipment, and field geology.

Also, in 2019 PJSC LUKOIL’s Working Group on Development of the Corporate System of Professional Competencies analyzed new and updated professional standards to ascertain whether their application was mandatory. 40 standards turned out to be mandatory and 160 voluntary. Lists of respective standards were sent to Russian LUKOIL Group entities for future reference.

1. In addition to LUKOIL Group’s employees, in 2019 two candidates from external organizations took part in the assessment.
POLICY ON WORKING WITH YOUNG PROFESSIONALS AND YOUNG EMPLOYEES

Working with young employees and professionals is an important component of the Company’s HR Policy. It represents a system of measures aimed at recruiting young professionals and fostering the conditions and opportunities that will allow them to achieve successful and effective personal fulfillment. These measures include internships for students at LUKOIL Group entities and mentorship, initiatives that facilitate the continuity of professional experience, best manufacturing traditions, and the corporate culture. Research and technology competitions and conferences for young professionals are held annually. Councils of young professionals have been established to help young people adapt to working conditions.

Indicators related to working with young employees and professionals, people

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of young employees(^2)</td>
<td>42,772</td>
<td>41,174</td>
<td>39,179</td>
</tr>
<tr>
<td>Share of young employees in total employee headcount, %</td>
<td>40%</td>
<td>39%</td>
<td>37%</td>
</tr>
<tr>
<td>Number of young professionals</td>
<td>1,945</td>
<td>1,639</td>
<td>1,423</td>
</tr>
<tr>
<td>Young employees recruited, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• young professionals</td>
<td>12,125</td>
<td>14,624</td>
<td>9,427</td>
</tr>
<tr>
<td>Number of students studying under agreements with LUKOIL Group entities</td>
<td>295</td>
<td>173</td>
<td>281</td>
</tr>
</tbody>
</table>

Note. The decline in the total number of young employees aged under 35 and in the share of young employees in total headcount is due to employees exceeding the age threshold for the young employee category and an increase in the retirement age in Russia beginning in 2018.

\(^1\) The mentorship procedure is described in the Regulations on the Induction of New Employees at LUKOIL Group Entities approved by a Resolution of the Management Committee of OJSC LUKOIL on 15 December 2008 (Minutes No. 33). The Regulations establish the procedure for organizing and holding induction events for new employees at LUKOIL Group entities.

\(^2\) Young employees are employees of PJSC LUKOIL and LUKOIL Group entities under 35 years of age, including young professionals. Young professionals are employees aged under 30 who have a higher or secondary vocational education and who began working at the Company in positions related to their education, including in manual jobs, within six months after graduation or within three months after completion of military service in the Armed Forces of the Russian Federation.
HOW DO THE REGIONS BENEFIT FROM THE COMPANY’S SOCIAL PROGRAMS?

The key priority of our external social policy is to help people and to improve the living standards in the cities where we operate. In order to make our social investments as effective as possible, we coordinate efforts with residents and regional leaders, combining our plans with the tasks of regional policies. This is how new infrastructure facilities are created, which will shape cities of the future.

For example, in 2019 it was decided to open a branch of the Perm National Research Polytechnic University in Kogalym (Western Siberia). So far, thanks to LUKOIL’s support, a branch of the Maly Theater has been opened in the city, new educational institutions are up and running, and a sports training center will be built. Thus, this oil mono-city is gradually becoming a cultural, scientific, and educational center within the Khanty-Mansi Autonomous Area - Yugra that is attractive to tourists. We believe that such changes are fully in line with the sustainable development objectives of the regions.
Our Company demonstrates a high level of corporate social responsibility in all the regions where we operate globally. We feel that requirements for companies are currently growing, and demands from society increasingly concern not so much isolated, one-time actions, but rather complex policies aimed at achieving specific results. We need to try to take into account how things might develop over several decades. This is exactly the approach enshrined in the principles of sustainable development being adopted by all major companies.

An external social policy is an important part of our sustainable development activities and is implemented taking into account the global challenges the Company faces. We actively cooperate with stakeholders working at the United Nations, European Parliament and European Commission platforms, and we participate in industry and environmental associations and engage with well-known non-profit organizations. We discuss at international level a range of topical issues related to climate change; the condition of the environment, seas, and oceans; health care; and support for indigenous peoples. LUKOIL will continue to seek to make progress in all these areas while at the same time maintaining a responsible approach to business.
Meeting challenges at the level of cities and small communities is an important aspect of achieving the UN Sustainable Development Goals. Communities have different priorities, depending on their specific circumstances; some pay greater attention to environmental protection, while others are more interested in addressing social issues.

Experts have identified several ‘megatrends’ that will affect the future of cities and territories, including rising average age of the population, increased migration processes, digitalization, climate change, and growing urbanization.

The challenges that need to be addressed at the local level are complex. Promising strategies in this regard include raising living standards while at the same time reducing the environmental footprint, improving municipal administration and land-use planning, solving the garbage disposal problem, and developing green infrastructure.

Source: OECD Roundtable on Cities and Regions for the Sustainable Development Goals, 2019
LUKOIL Group entities produce a wide range of products for various industries and vehicle owners in Russia, Europe, Asia, and the Americas. Our priorities are focusing on customer expectations, developing and launching new products with enhanced operational and environmental properties, and continually improving quality management approaches. We make great efforts to get feedback from our clients on the quality of our products and related services. LUKOIL filling stations have a loyalty program for customers.

**Sales of fuel products and lubricants**

<table>
<thead>
<tr>
<th>Type of product</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECTO brand fuel, thousand tonnes</td>
<td>8,554</td>
<td>9,603</td>
<td>9,022</td>
</tr>
<tr>
<td>Bunker fuel, thousand tonnes</td>
<td>4,539</td>
<td>4,742</td>
<td>4,269</td>
</tr>
<tr>
<td>Aviation bunker fuel, thousand tonnes</td>
<td>3,238</td>
<td>3,198</td>
<td>3,357</td>
</tr>
<tr>
<td>Branded oils (premium group), thousand tonnes</td>
<td>270</td>
<td>258</td>
<td>254</td>
</tr>
<tr>
<td>Biofuel blends*, million liters</td>
<td>4,174</td>
<td>6,515</td>
<td>7,093</td>
</tr>
</tbody>
</table>

Note. *Allowing for a motor gasoline density of 0.755 kg/L and a diesel fuel density of 0.845 kg/L. Biofuel blends are blends of motor gasolines and ethanol (up to 10%) or diesel fuel and fatty acid methyl esters. These products are sold in European countries (the largest volumes, in excess of 1,000 million liters, are sold in Belgium, Romania, Bulgaria, and Turkey).

**Manufacturing and selling products with enhanced properties**

LUKOIL-branded products have enhanced properties that enable lower fuel consumption and reduce the content of hazardous substances in exhaust gases. The use of new and innovative products fosters improvements in safety and reduces negative environmental impacts on the customer side.

**Share of products with enhanced properties, %**

<table>
<thead>
<tr>
<th>Share of ECTO branded fuels (motor gasoline and diesel) in total retail sales of petroleum products in Russia and abroad</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of environmentally safe marine fuel in total sales of bunker fuel</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Share of energy efficient lubricants (PVL + CVL)* in total production of lubricants</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

Note. *The method of calculating the indicator (PVL+CVL) has been revised: only branded oils with a viscosity grade of less than or equal to XXW-30 are taken into account; 2018 data has been updated.

1 Oils with low high-temperature viscosity values (less than or equal to XXW-30) from light and heavy-duty product lines.
LUKOIL’s strategic focus is on continuously seeking opportunities to enhance the quality of its motor fuels and lubricants and adopting an approach of anticipatory compliance with the requirements of the markets where our products are sold.

The composition of our motor fuels was 100% compliant with Euro 5 (European emission standard 5) as early as 2012. As part of continued work to improve fuel quality, LUKOIL has launched the ECTO and ECTO+ fuel brands (motor gasoline and diesel fuel).

The combustion products of these new types of fuel contain less sulfur, soot, carcinogens, and other hazardous substances. The Company also produces innovative products for marine shipping, aviation, and industrial companies. LUKOIL is one of the largest suppliers of bunker fuel in Russia and for ports in Bulgaria and Romania. Environmentally safe marine fuel (RMD-80/TSE) with 0.1% sulfur content meets MARPOL requirements related to the content of air pollutants in exhaust gas in SECA2 and aquatic areas of the European Union. This product has been sold in the Baltic Sea aquatic area since 2014.

PRODUCTION OF ENERGY EFFICIENT LUBRICANTS

Our priority in developing production of oils and lubricants is to create innovative products for promising new types of equipment and machinery, as well as highly effective specialized products for various industry sectors.

LLK-International develops and supplies low-viscosity Genesis FE (Fuel Economy) oils to consumers in various countries. These oils help reduce fuel consumption by internal combustion engines and boost energy efficiency.

QUALITY MANAGEMENT

The Company adopts an integrated approach to quality management at all stages of the product life cycle, from production to consumer. We apply unified quality management approaches both in Russia and abroad.

The quality management systems of nine entities operating in the aircraft bunkering sector in Russia and abroad, as well as all LLK-International facilities producing oils and liquid lubricants, are certified under ISO 9001:2015 with respective certificates.

Ensuring the quality of motor fuels

Our goal is to perform comprehensive and real-time monitoring of the delivery and acceptance of oil products, both to and from Transneft and Russian Railways transportation systems, and to ensure their proper acceptance, storage, and sale at LUKOIL bulk plants and fuel stations.

Our corporate automated management system, which covers all filling stations and most bulk plants in Russia and is installed at facilities in Serbia and Romania, allows oil product flows to be electronically tracked from refinery to end user. The Guaranteed Oil Product Delivery system reduces product transportation time, as well as the number of improper uses and product losses incidents. The electronic sealing of road tankers helps reduce the rate of injuries among filling station personnel, as it eliminates dangerous work at heights.

Distribution of LUKOIL Group filling stations among countries, as of December 31 each year

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>5,258</td>
<td>5,168</td>
<td>5,044</td>
</tr>
<tr>
<td>Russia</td>
<td>2,609</td>
<td>2,556</td>
<td>2,469</td>
</tr>
<tr>
<td>Abroad</td>
<td>2,649</td>
<td>2,612</td>
<td>2,575</td>
</tr>
</tbody>
</table>

Note: Data include LUKOIL Group’s owned, leased, and franchised filling stations, as well as suspended and leased filling stations (as of 31 December 2019). Changes in the performance dynamics of Russian companies supplying oil products are mainly due to a reorganization of the sales network in 2018-2019.
Ensuring the quality of oils and lubricants

Audits of LUKOIL production sites by customers which are leading car manufacturers (Daimler, General Motors, Ford, Volkswagen, Renault-Nissan-Mitsubishi, etc.) are an effective quality control method and customer relations tool for LLK-International, as it is during such audits that product quality and production efficiency are evaluated.

We impose similar requirements on suppliers of raw materials, additives, and supplementary materials. All suppliers are assessed against the applicable corporate standard1, and LUKOIL Group entities perform audits of suppliers.

By 2022 LLK-International plans to upgrade its capacities at principal sites in Perm and Volgograd in order to accelerate a transition to manufacturing small-tonnage batches, which will reduce the resource intensity of production processes.

Customer relations are covered by the SP LLK 08-2015 standard “The Procedure for Handling Customer Claims and Complaints.” Customers are sent Product Satisfaction Questionnaires three times a year in order to gauge their satisfaction levels. The average customer satisfaction level is defined as the ratio of positive responses in questionnaires to the total number of completed questionnaires.

Average satisfaction level of oil and lubricant consumers, % of those satisfied with product quality

<table>
<thead>
<tr>
<th>Year</th>
<th>Satisfaction Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>88</td>
</tr>
<tr>
<td>2018</td>
<td>90</td>
</tr>
<tr>
<td>2019</td>
<td>90</td>
</tr>
</tbody>
</table>

RELATIONS WITH FILLING STATION CUSTOMERS

We maintain constant contact with the retail customers of our filling stations and analyze feedback from them in order to improve the quality of services as well as the satisfaction level with our products and services. The main methods of customer interaction are surveys and analyses of client requests and proposals received via the Unified Hotline directly at filling stations and through social networks. LLC LICARD’s Big Data analytics tools facilitate customer segmentation, which in turn facilitates more accurate feedback.

Feedback is used to improve the work of regional managers at filling stations: every month their performance is benchmarked against criteria that take into account requests and complaints received via a Unified Hotline, as well as the rating received in the Mobile Application.

After the launch of the new “Fill up with profit” loyalty program in 2019, the number of calls from individual clients to the Unified Hotline rose by 30%, due mainly to requests to update personal data. This means that customers demonstrated significant interest in the new program and were enthusiastic about participating in it. To maintain the quality of services at the time of the program launch, additional operators were hired (new employees were trained prior to its launch), a new call center site was opened, and information materials were prepared.

An analysis of calls from clients to the Unified Hotline in 2019 demonstrated greater satisfaction with fuel quality and that issues previously cited by clients as problematic had also been successfully resolved.

Thanks to systematization and new channels of communication with clients about advertising campaigns, the number of informational requests related to promotions terms saw an almost fourfold decrease. To boost the effectiveness of information campaigns, regional segmentation has been tested since 2019: clients in a specific region receive messages about campaigns launched in relevant territories. Work is carried out with specific groups of clients to resolve local issues.

IN 2019 THE NUMBER OF COMPLAINTS ABOUT THE QUALITY OF OIL PRODUCTS AT FILLING STATIONS DROPPED BY ALMOST 30% COMPARED TO 2017, AND THE NUMBER OF COMPLAINTS ABOUT THE ABSENCE OF OIL PRODUCTS FELL 70%. THERE WAS A 3.5 TIME INCREASE IN POSITIVE FEEDBACK FROM CLIENTS ON THE WORK OF FILLING STATION OPERATORS.

The customer relations system we have developed helps us boost overall operational efficiency and create a welcoming environment at filling stations.

Customer service unit answers clients’ questions via any convenient communication channel.

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1. SP LLK 11-2016 “Procedure for Assessing Suppliers of Materials and Services.”
## EXTERNAL SOCIAL POLICY PRIORITIES

### ELEMENTS OF THE MANAGEMENT SYSTEM

<table>
<thead>
<tr>
<th>PRINCIPLES</th>
<th>DESCRIPTION</th>
<th>CORPORATE DOCUMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Company’s social responsibility principles are defined as follows: • continuity of business; • economic feasibility; • and control over performance of obligations and public reporting.</td>
<td>The Social Code of PJSC LUKOIL, approved by the PJSC LUKOIL Board of Directors, Minutes dated 24 October 2017</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Company’s charity and sponsorship priorities and the mechanisms for their implementation and assessment have also been established.</td>
<td></td>
</tr>
<tr>
<td>PRIORITY</td>
<td>DESCRIPTION</td>
<td>CORPORATE DOCUMENTS</td>
</tr>
<tr>
<td>Environmental protection, the development of science and education, the preservation of national and cultural identities, and sponsoring culture and sports and supporting socially vulnerable groups.</td>
<td>The Social Code of PJSC LUKOIL, clauses 3.1 – 3.7.</td>
<td></td>
</tr>
<tr>
<td>Interaction with the regions where we operate and with local communities</td>
<td>PJSC LUKOIL’s external social policy is executed using the following mechanisms: • social and economic cooperation agreements with constituent entities of the Russian Federation; • an annual Social and Cultural Projects competition held for public and municipal organizations • charity projects and programs, targeted support • supporting the indigenous minorities of the North • corporate volunteering • sponsorships.</td>
<td>PJSC LUKOIL’s Policy on Interactions with Subsidiaries on Key Lines of Activities of the Public Relations Department approved by the Management Committee of PJSC LUKOIL, Minutes dated 23 December 2019 (clauses 4.1.14 – 4.1.20).</td>
</tr>
<tr>
<td>Assessment of projects</td>
<td>The main criterion for selecting projects we support is their potential contribution to resolving local issues. Our methods of assessing the efficacy of implemented projects include: • meetings with regional administrations to discuss the effective implementation of cooperation agreements • regular monitoring of the social and economic situation in Russian regions • meetings with residents of Russian regions (roundtables, dialogue sessions, conferences).</td>
<td></td>
</tr>
</tbody>
</table>
We recognize the importance of regularly interacting with the residents of the Russian regions where LUKOIL entities operate. Our external social policy focuses on the interests of territories and local communities, and is based on the principles of constructive cooperation and responsible partnership.

In Russia we implement joint projects with local authorities and social organizations to build and renovate kindergartens, schools, sports facilities, medical centers, hospitals, cultural institutions, and other socially significant facilities.

Our social priorities have remained unchanged for over a quarter of a century, and are the same for all the regions and countries where LUKOIL Group entities operate. Many programs and regional projects are long term in nature, and financed both by the LUKOIL Charity Fund (hereinafter, the LUKOIL CF or the Fund) and directly by LUKOIL Group entities.

The most well-known branded program is the Social and Cultural Projects Competition, held by the LUKOIL CF in partnership with LUKOIL Group entities. In 2019 the competition was held abroad for the first time in Romania. The decision to expand the competition boundaries was made in response to requests from local residents during dialogue sessions. The Company has held dialogue sessions in the cities of Prahov and Bucharest in Romania twice a year over the past few years.

Our corporate programs are generally targeted and build on regional expertise and human potential.

In 2019 PJSC LUKOIL won the IPRA Golden World Awards for Excellence in two categories: Best Campaign for Community Engagement and Best Campaign for Promoting Travel and Tourism, for its projects to develop Kogalym as a tourism center in the West Siberian oil and gas producing region.

LUKOIL was also declared one of the winners in a contest for the best socially responsible oil and gas company of 2019, and received diplomas for promoting charity activities among citizens and organizations.
AREAS OF SUPPORT

SUPPORT FOR ORPHANED CHILDREN, DISABLED PERSONS, WAR AND LABOR VETERANS, AND OTHER GROUPS IN NEED OF HELP

We support public institutions that look after orphaned and abandoned children, as well as the children themselves. Our programs promote the personal development of children, improve their health, and help them socialize and adapt to adult life. By supporting disabled people, we not only provide them with financial assistance, but also help them master new life skills.

The Company provides special concern and caring to World War II veterans working in the oil industry. Every year, on the eve of Victory Day, they receive monetary aid and gifts. The Company also supports the families of military servicemen who died in local conflicts.

SELECTED SOCIAL POLICY INITIATIVES

Supporting social groups in need of help

A program to sponsor specialized libraries for blind children was continued: such libraries in six regions of Russia received computer equipment, software, and devices for reading audio books.

In 2019 a new program for children with cerebral palsy was launched to provide them with wheelchairs tailored to their bodies and functional needs. With increased mobility, their lives will become more active and interesting.

ENVIRONMENTAL PROJECTS

Environmental campaigns have been held at LUKOIL Group entities throughout the Company’s existence and are a part of our corporate culture that is much loved by employees. As part of these events our employees and partners traditionally plant trees and flowers and clear litter from urban and natural areas, river banks, and rivers.
EDUCATIONAL PROGRAMS

We believe that our programs for the younger generation and young oil industry specialists will make a valuable contribution to the future well-being of society.

The Company supports oil industry higher and secondary educational institutions: high-quality research and modern facilities and resources help them organize the educational process in accordance with the highest standards. The institutions use financial support from the Company to create research centers, laboratories, and academic departments; purchase equipment; and publish new textbooks and collections of articles about the oil and gas industry.

In 2019 PJSC LUKOIL opened an interactive training and methodological center in the historical hall No. 25, Oil, at the Exhibition of Achievements of the National Economy in Moscow (VDNKh). This is the largest multimedia exhibition in Russia devoted to scientific and applied topics, and it depicts the entire production cycle - from hydrocarbon production to refining and sales operations.

This exhibition has been prepared with the help of the most advanced technological solutions at the intersection of the digital and physical world, such as virtual and augmented reality, and holographic theater. The role of oil in human life is shown through the synchronization of the subject, graphical, and multimedia content and is presented through 150 stories. The Oil Pavilion is popular with a wide range of visitors, including children interested in science and technology, students, and experts in this area. The Oil City playground is situated near the Pavilion, featuring play areas called Offshore Oil Production Platform, Oil Refinery, Fuel Truck, and Racing Car and has various sports equipment installed in it.

Traditional educational support programs continued in 2019. Since 2000 we have been sponsoring high-potential students, young teachers, and job training instructors by providing individual scholarships and grants. In 2019 the scholarship program covered 14 higher education institutions and three colleges, and the grant program covered one high school, eight higher education institutions, and four colleges in Russia.

LUKOIL Group entities also support educational initiatives in regions where they operate and implement programs that have wide coverage.

Sponsorship programs for students and teachers of higher and secondary education organizations in Russia

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student scholarships</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of scholarship holders, people</td>
<td>180</td>
<td>190</td>
<td>195</td>
</tr>
<tr>
<td>Level of financing, RUB million</td>
<td>6.6</td>
<td>5.9</td>
<td>6.2</td>
</tr>
<tr>
<td><strong>Grants to teachers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of teachers, people</td>
<td>89</td>
<td>79</td>
<td>79</td>
</tr>
<tr>
<td>Financing amount, RUB million</td>
<td>10.3</td>
<td>9.0</td>
<td>9.2</td>
</tr>
</tbody>
</table>
SUPPORTING HEALTHCARE INSTITUTIONS

The Company has for many years supported a number of large specialized medical centers and regional hospitals, out-patient clinics, and first aid stations, as well as improving medical services in the regions of operation.

CULTURAL HERITAGE PRESERVATION PROGRAM

This program is aimed at developing Russian culture, promoting spirituality, and preserving national values. For many years we have supported museums, theaters, performance groups, and festivals. We take part in organizing exhibitions and concert tours, restoring cultural heritage sites, and repairing cultural and art centers in Russian regions.

SELECTED SOCIAL POLICY INITIATIVES

The Company continued to run the Medical Force campaign to purchase medical equipment for district hospitals in the Perm Territory. This initiative has been running for more than five years.

In Uzbekistan we helped local organizations purchase equipment and specialized vehicles: an ambulance was provided to the Bukhara branch of the Sogloiom Avlod Uchun medical fund and the Bukhara Emergency Medical Care Center received an oxygen station. The Children’s National Oncology Hospital received charitable support to repair and equip the surgery department.

The Company is committed to fostering conditions that preserve national and cultural traditions and crafts in regions of operation, and supports various types of art, especially classical, as well as the territories where cultural monuments are located, including those representing valuable or particularly vulnerable cultural heritage sites. Numerous projects to preserve cultural heritage have been implemented.

2019 was the Year of Theater in Russia. During the year a new stage of the Moscow Maly Theater was opened, in Kogalym. The former cultural and leisure complex was redeveloped and converted into a modern cultural site that can be used for a range of theatrical performances. A small theater company was set up comprising graduates of the Shchepkin Higher Theater School. It will be permanently located in Kogalym and work as a branch of the Maly Theater. This is the first such collaboration between a Moscow theater and a Russian region.

The Company has traditionally supported a large number of cultural events: the Perm State Art Gallery hosted a traveling exhibition entitled “Masterpieces of the Kremlin,” Workshops, showcasing Moscow Kremlin Museums; the Russian Museum put on “Angels of the 20th Century” exhibition; the Vyatka Art Museum named after V.M. and A.M. Vasnetsov held the “Time Space” exhibition; and the Astrakhan Art Gallery named after P.M. Dogadin put on “The City of the Sun” exhibition using exhibits from the ROSIZO State Museum and Exhibition Center. Also, the Company supported the restoration of paintings of well-known Russian artists in Moscow and regional museums, and in addition to the above-mentioned projects, the Company also supported cultural centers and performance groups in various towns and villages across Russia.
The Social and Cultural Projects Competition has been held at LUKOIL Group entities, including in cooperation with the LUKOIL CF, since 2002. Its main goal is to support initiatives from local citizens and entities to help resolve issues that impact local areas, and to facilitate conditions that will increase the number of active citizens capable of implementing worthwhile social ideas.

LUKOIL’s sports program is geared towards promoting healthy lifestyles and sports. We help both professional and amateur teams and are constantly in search of new ideas to implement social initiatives in this area. The consistent nature of our approach is demonstrated by our continuous support of sports organizations (clubs, federations, leagues, etc.) through the LUKOIL Sport Club.

We support the following sports: soccer, motor racing, basketball, competitive skiing, water polo, handball, etc.

Thanks to the Company’s support efforts, Russian car racers (Lukoil Racing Team), FC Spartak, the national skiing team, United Basketball League athletes, and numerous regional teams have recorded impressive victories in various sports. All professional clubs supported by LUKOIL develop children sports.

In addition, the Company supports the development of youth soccer at the international level

Attention is also paid to sports veterans – LUKOIL is a founder of the Russian Olympians Foundation.

The initiatives of the LUKOIL Sport Club are intended for young athletes, amateur and professional athletes, and disabled people.

“Refueling through Sport” grant. This nationwide charity project is aimed at sponsoring athletes aged between six and fourteen. In addition to cash prizes, winners receive sportswear and train under the guidance of Olympic champions. Each year 10 to 15 winners are selected.

“Refueling through Sport” night race. In 2019 this charity race was held for the second time, as part of the Formula One Russian Grand Prix. Participants had the opportunity to run on the race track when Russia hosted the stage of the competition. Around one thousand runners took part, twice as many as in 2018. The funds raised were partially used to support Russia’s youngest racer, Rodion Dyadya.
SELECTED PROJECTS FINANCED IN 2019

**Improving the social climate in Russian regions**

Neman, the Kaliningrad Region. The Spirituality and Culture (Dukhovnost i Kultura) organization implemented “The House where We Live” project, aimed at improving the stays of disabled children at the children’s activity center. The grant was used to renovate the classroom and thereby provide a more comfortable environment for classes.

**Preservation of national and cultural identities**

Ukhta, the Komi Republic. The Local History Museum in Ukhta implemented a project called “Craft is not a Shoulder Yoke.” This exciting and modern project seeks to promote the traditions of the Komi people. The project authors organized an exhibition of old household items and supplemented it with interactive zones for workshops. Children can become hunters and find out about animal trails or learn what a spinning wheel and a spindle are and the basics of weaving. The exhibition is supplemented with paintings in the ethnofuturism style by the artist Yuri Lisovsky.

**Environmental improvement**

Solikamsk, the Perm Territory. The Travel Shore project of the Demidov Memorial Botanical Garden. As part of the project, a new tourist trail was created on virgin lands of the garden covering 1.2 hectares. In addition to rare and collectable plants, art objects and 10 information stands were installed.

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**Social and Cultural Projects Competition results**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of projects participating in the competition, units</td>
<td>3,364</td>
<td>3,645</td>
<td>3,607</td>
</tr>
<tr>
<td>Number of winning projects, units</td>
<td>739</td>
<td>772</td>
<td>785</td>
</tr>
<tr>
<td>Financial support for winning projects, RUB million</td>
<td>121</td>
<td>141</td>
<td>159</td>
</tr>
</tbody>
</table>

More information about projects LUKOIL supports can be found on the Facebook page: [WWW.LUKOIL.COM](http://WWW.LUKOIL.COM)
The practice of volunteering in campaigns and events for the benefit of the residents of cities and villages has long been part of LUKOIL’s corporate culture. Our young employees organize their own volunteer projects and participate in local initiatives.

Despite the large variety of campaigns, our volunteers from all regions where LUKOIL operates have shared priorities. These include the following types of support and social participation:

- Support for war and oil industry veterans: visiting the elderly, helping them around the house, and giving them gifts.
- Care for children - visits to orphanages and patronage of child welfare institutions, organizing related events and campaigns.
- Environmental campaigns - cleaning up natural sites, planting trees in cities.
- Sporting events – bicycle rides, races, relays, rafting, hiking, etc.
- Charity fairs and city festivals to encourage the residents of cities and villages to provide charitable aid to their neighbors.

SOCIAL ENTREPRENEURSHIP

The “More Than Just a Purchase” project is a unique joint initiative between LUKOIL Group Russian entities supplying oil products and the “Our Future” Foundation of Regional Social Programs.

Its purpose is to sponsor social entrepreneurs1, who get the opportunity to sell their products at the Company’s filling stations. The project helps people understand that, by buying goods under the “More Than Just a Purchase” brand, our clients buy high-quality goods produced by Russian companies that employ disabled people, pensioners, and other socially vulnerable groups. By making informed choices, they help people who need help.

In 2019 we supported 34 entrepreneurs, including five branches of the All Russia Association of the Blind. The range of goods produced by social entrepreneurs and supplied to filling stations has been expanded: it now includes goods for cafes and for picnics.

More details about the project:

1. Social entrepreneurship refers to a special type of activity aimed at resolving or mitigating social issues using income from economic activities. Both small businesses and social non-profit organizations can be social entrepreneurs.
Since 2017 a cooperation agreement has been in effect between PJSC LUKOIL and the Federal Agency for Ethnic Affairs, to promote the social, economic, and cultural development of indigenous minorities of the North. In 2019 the main focus of cooperation was the preservation of indigenous languages. LUKOIL joined the Organizing Committee of the International Year of Indigenous Languages 2019 in Russia. The Company assisted the Russian delegation and was one of its participants at the official opening of the International Year of Indigenous Languages 2019 at the UNESCO site in Paris. Also, LUKOIL was a partner of the “Year of Indigenous Languages in Russia” international forum held in Khanty-Mansiysk. The Company also participated in the 18th Session of the UN Permanent Forum on Indigenous Issues in New York, where it showcased its experience in supporting social projects to preserve and develop the national languages of indigenous minorities of the North.

LUKOIL continues to support the “Talents of the Arctic. Children” project, which is aimed at encouraging interest among the children of indigenous minorities of the North in their native languages. In December the Company supported the organization of the winners’ visit to Moscow. As part of the event, the Company received a letter of gratitude from the Federal Agency for Ethnic Affairs, “For Contributing to Strengthening Nationwide Peace and Conciliation.” The letter was presented to the Company at the Federation Council of the Russian Federal Assembly, after the ceremony to award the winners of the “Talents of the Arctic. Children” cultural and educational project.

The Company has established and successfully operates mechanisms that allow indigenous minorities of the North and their organizations to contact the Company and request assistance or the protection of their rights. We also implement charity projects, such as the “Red Chum” project in the Nenets Autonomous Area.

LUKOIL-West Siberia has an Indigenous People Relations Department that interacts with indigenous minorities of the North. Indigenous people can contact the Company’s employees by telephone. After receiving a request, employees of the Indigenous People Relations Department prepare the necessary documents, which are then assessed by management. Traditionally, requests from indigenous minorities of the North are mainly practical in their nature - for example, requests to connect a nomad camp to the grid, to install additional water pipes at intersections of industrial roads crossing streams or lakes, or to construct ramps on the sides of oil field roads where deer migrate, etc.
Supporting indigenous minorities of the North in Russia as part of licensing obligations

<table>
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<th>Russian Region</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tr>
<td>Khanty-Mansi Autonomous Area - Yugra</td>
<td>RUB 311.4 MILLION</td>
<td>RUB 353.5 MILLION</td>
<td>RUB 355.1 MILLION</td>
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<tr>
<td>Nenets Autonomous Area</td>
<td>RUB 30.5 MILLION</td>
<td>RUB 30.5 MILLION</td>
<td>RUB 30.5 MILLION</td>
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<tr>
<td>Total</td>
<td>RUB 341.9 MILLION</td>
<td>RUB 384.0 MILLION</td>
<td>RUB 385.6 MILLION</td>
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TOTAL IN 2019
RUB 385.6 MILLION
Support of indigenous minorities of the North in Russia as part of licensing obligations
CONCLUSION

LUKOIL, as a leading company on the Russian market and a participant in the global supply chain, supports the efforts of the global community to limit increases in average annual temperature as a result of climate change caused by human activities. We see climate change as a challenge for all of us and we take the relevant risks and opportunities seriously. In 2019 the Company took comprehensive steps to better organize our activities in this area and to adopt a more systematic and strategic approach.

We are fully supportive of the United Nations 2030 Agenda for Sustainable Development. The Company recognizes that the goals outlined in this document are of vital importance for ensuring a prosperous future for the human society. Furthermore, greater efforts are required to ensure that the positive changes being made in support of a number of goals are sustainable. Therefore, we continue to implement programs aimed at both improving the operational performance of our enterprises and ensuring the wellbeing of the people living in the regions where we operate.

We have identified 11 global goals and 15 targets which we consider to be the most relevant to our operations and to which we are able to contribute. We achieved good success in 2019, but much remains to be done.

LUKOIL will continue to inform our stakeholders - government authorities, non-government organizations, local communities, shareholders, and investors - about the measures we take and the results we achieve in our annual sustainability reports.

We welcome feedback on the information published. We try to take into account all the questions and suggestions we receive, and to make changes in the data collection and analysis system as required in order to improve the quality of our reporting.
## APPENDICES

### APPENDIX 1. LUKOIL GROUP’S STRUCTURE AS PER IFRS

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<td><strong>Oil Refining in Russia business sector</strong></td>
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<td>LLC LUKOIL-Intesmo</td>
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<tr>
<td>SP Neftestroy</td>
<td>LLC LUKOIL-KGPZ</td>
</tr>
<tr>
<td>LLC LUKOIL-West Siberia</td>
<td>LLC LUKOIL MarinBunker</td>
</tr>
<tr>
<td>LLC ChumpassNefteDobycha</td>
<td>JSC Morskoye Agentstvo Novotorik</td>
</tr>
<tr>
<td>LLC LUKOIL EPU Service</td>
<td>LLC Donbunker</td>
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<tr>
<td>LLC Yuzhno-Sardovskoye</td>
<td>LLC LUKOIL-AVIA</td>
</tr>
<tr>
<td>LLC LUKOIL-Kaliningradmorneft</td>
<td>LLC LLK-International</td>
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<tr>
<td>LLC UTTIST</td>
<td>LLC LLK Marin Rus</td>
</tr>
<tr>
<td>LLC LUKOIL-Komi</td>
<td>JLLC LLK-NAFTAN</td>
</tr>
<tr>
<td>LLC LUKOIL-Nizhevozhskeft</td>
<td>LLC LUKOIL-AERO</td>
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<td>LLC LUKOIL-AERO-Domodedovo</td>
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<td>LLC LUKOIL-AERO-Samara</td>
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<td>LLC UralOil</td>
<td>LLC LUKOIL-AERO-Vostok</td>
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<tr>
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<td>LLC TZK-Arkhangelansk</td>
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<tr>
<td>LLC RITEK</td>
<td>JSC AERO-Sheremetyevo</td>
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<td>LLC LUKOIL-Primoryeneftegaz</td>
<td>LLC TZK Volga</td>
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<tr>
<td>LLC NK Yugranefteprom</td>
<td>LLC TZK Severo-Zapad</td>
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<td>LLC LUKOIL-Nizhegorodniinefteproekt</td>
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<td>LLC LUKOIL-Intesmo</td>
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<td>LLC Stavrobrenol</td>
<td>LLC LUKOIL-KGPZ</td>
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<td><strong>Oil Refining in Russia business sector</strong></td>
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<td>LLC LUKOIL-Trans</td>
<td>LLC LUKOIL-MarinBunker</td>
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<tr>
<td>LLC Varandey Terminal</td>
<td>JSC Morskoye Agentstvo Novotorik</td>
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<tr>
<td>LLC LUKOIL-Varandey-AVIA</td>
<td>LLC Donbunker</td>
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<td><strong>Oil Product Supply in Russia business sector</strong></td>
<td><strong>Power Generation business sector</strong></td>
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<td>LLC LUKOIL-Volgogradenergo</td>
</tr>
<tr>
<td>LLC Varandey Terminal</td>
<td>LLC Volzhsk Heat Supply Networks</td>
</tr>
<tr>
<td>LLC LUKOIL-Varandey-AVIA</td>
<td>LLC Kamyshev Combined Heat and Power Plant</td>
</tr>
<tr>
<td>LLC LUKOIL-Perm</td>
<td>LLC Kamyshev CHP</td>
</tr>
<tr>
<td>LLC LUKOIL-Ukhtaneftepererabotka</td>
<td>LLC Teplovaia Generation G. Volzhskogo</td>
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<td><strong>Power Generation business sector</strong></td>
<td><strong>Power Generation business sector</strong></td>
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<td>LLC LUKOIL-Astrakanenergo</td>
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<td>LLC Volzhsk Heat Supply Networks</td>
<td>LLC Astrakhan Heat Supply Networks</td>
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<tr>
<td>LLC Kamyshev Combined Heat and Power Plant</td>
<td>LLC LUKOIL-Kubanenergo</td>
</tr>
<tr>
<td>LLC LUKOIL-Astrakanenergo</td>
<td>LLC LUKOIL-Stavropolenergo</td>
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<tr>
<td>LLC Astrakhan Heat Supply Networks</td>
<td>LLC LUKOIL-Rostovenenergo</td>
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<td>LLC Rostov Heat Supply Networks</td>
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<td>LLC LUKOIL-Ekoenergo</td>
<td>LLC Volgodonskaya Teplovaia Generation</td>
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<td>LLC LUKOIL-ENERGOETVIS</td>
<td>LLC LUKOIL-Ekoenergo</td>
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<tr>
<td>LLC LUKOIL-Energoengineering</td>
<td>LLC LUKOIL-Energoengineering</td>
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</tbody>
</table>

### Corporate and Other

| PJSC LUKOIL | LLC LUKOIL-Personnel |
| LLC LUKOIL-INFORM | LLC Arkhangelskgeolrazvedka |
| LLC LUKOIL-Technologii | LLC K.N. Holding |
| LLC LUKOIL-Accounting Center | |
Europe

 Exploration and Production

 Oil and Gas Production Abroad business sector
 LUKOIL Overseas Atash B.V.
 LUKOIL Overseas North Shelf AS

 Refining, Marketing and Distribution

 Oil Refining Abroad business sector
 LUKOIL Neftohim Burgas AD
 ISAB S.r.l.
 PETROTEL-LUKOIL S.A.
 Zeeland Refinery (PJSC LUKOIL holds a 45% share)
 TOTAL Opslag en Pijpleiding Nederland N.V.

 Oil Product Supply Abroad business sector
 LUKOIL-BULGARIA EOOD
 LUKOIL Belgium
 Auto Maas Tankstations B.V.
 LUKOIL Italia S.r.l.
 LUKOIL MACEDONIA LTD Skopje
 LUKOIL Netherlands B.V.
 LUKOIL ROMANIA S.R.L.
 LUKOIL SERBIA PLC Belgrade
 Oy Teboil Ab
 Kiinteisto Oy Nurmi jarven Liikennepalvelukeskus
 LUKOIL Croatia Ltd.
 LUKOIL MONTENEGRO DOO
 IOOO LUKOIL Belorussia
 LUKOIL-Moldova S.R.L.

 Power Generation business sector
 LAND POWER S.A.

 Other entities related to Refining, Marketing and Distribution business segment
 LUKOIL Aviation Bulgaria EOOD
 LUKOIL-Bulgaria Bunker EOOD
 LUKOIL LUBRICANTS EAST EUROPE S.R.L.
 LUKOIL Lubricants Europe GmbH
 LUKOIL LUBRICANTS UKRAINE, TOV
 LUKOIL MARINE LUBRICANTS DMCC
 LUKOIL Marine Lubricants Germany GmbH
 LITASCO SA
 LUKOIL Hamburg GmbH
 LUKOIL Benelux B.V.
 EIGER SHIPPING SA
 LUKOIL Overseas Supply and Trading Ltd.
 LUKARCO Finance B.V.
 LUKINTER FINANCE B.V.
 LUKOIL Europe Holdings B.V.
 LUKOIL Holding B.V.
 LUKOIL International Finance B.V.
 LUKOIL International Upstream Holding B.V.
 LUKOIL International Secondment B.V.
 LUKOIL SECURITIES LIMITED
 LiCARD Euro Services GmbH
 LUKOIL Capital Markets Ltd

 Verolma Mineralol GmbH
 LUKOIL INTERNATIONAL GmbH
 AC MANAGEMENT COMPANY LIMITED
 ARJ LTD
 LUKOIL Holding GmbH
 MEROIL TANK S.L.
 SOOO LLK-NAFTAN
 SOOO LUKOIL-Inter-Kard-Bel
 VARS

 Corporate and Other
 LUKOIL Accounting and Finance Europe s.r.o.
 LUKOIL Technology Services GmbH

 Asia, Middle East, Africa

 Exploration and Production

 Oil and Gas Production Abroad business sector
 LUKOIL Overseas Shah Deniz Midstream
 LUKOIL Overseas Shah Deniz Ltd.
 LUKOIL Uzbekistan Operating Company LLC
 SOUYUZNEFTEGAZ VOSTOK LIMITED
 LUKOIL Overseas Uzbekistan Ltd.
 LLP LUKOIL Kazakhstan Upstream
 Upstream Services Limited
 LUKARCO B.V.
 LUKOIL Overseas Karachaganak B.V.
 LUKOIL Overseas Kumkol B.V.
 TURGAIPETROLEUM JSC
 LUKOIL MID-EAST LIMITED
 LUKOIL Overseas Iraq Exploration B.V.
 LUKOIL SAUDI ARABIA ENERGY LIMITED
 LUKOIL OVERSEAS EGYPT LIMITED
 Esh El Mallaha Petroleum Company
 LUKOIL Overseas Etinche Cameroon Sarl
 LUKOIL OVERSEAS GHANA TANO LIMITED
 LUKOIL Overseas Nigeria Limited
 LUKOIL UPSTREAM PRODUCTION NIGERIA LTD
 LUKOIL Overseas Riyadh Ltd

 Refining, Marketing and Distribution

 Oil Product Supply Abroad business sector
 LUKOIL Eurasia Petrol Anonim Sirketi
 LUKOIL-Azerbaidjan, ZAO
 LUKOIL-Georgia Ltd.
 OOO LUKOIL Uznenefteprodukt
Abroad

Other entities related to Refining, Marketing and Distribution business segment
LUKOIL Lubricants Middle East Madeni Yag Sanayi ve Ticaret Limited Şirketi
LUKOIL Lubricants Central Asia LLP
LUKOIL Lubricants (China) Co., Ltd.
LUKOIL Lubricants Africa, S.A.R.L.
Akpet Gaz A.S.
Lukoil Isletmesi Limited Şirketi
Akpet Akaryakit Dag. A.S.
Akdeniz Boru Nasilat ve Isletmecilik Ic ve Dis Tic. Ltd Sti
ISTASYON YONETIMI VE PETROL URUNLERI TICARETI ANONIM SIRKETI
LITASCO SA
LLP LITASCO Central Asia
LITASCO Middle East DMCC
IRAQ PETROLEUM TRADING DMCC
LUKOIL ASIA PACIFIC PTE LTD.

Americas
LUKOIL MARINE LUBRICANTS USA INC.
LUKOIL Lubricants Mexico, S.de R.L.de C.V.
LUKOIL NORTH AMERICA LLC
LUKOIL Pan Americas, LLC
LUKOIL Lubricants Mexico S.de R.L.de C.V.
LUKOIL MARINE LUBRICANTS USA INC.
LUKOIL International Upstream West Inc
INTEGRATED EXPLORATION AND PRODUCTION SERVICES, S. de R.L. de C.V.
LUKOIL UPSTREAM MEXICO, S. de R.L. de C.V.

APPENDIX 2. IDENTIFICATION OF MATERIAL TOPICS OF THE REPORT

The procedure for determining the material topics of the Report is performed in accordance with the Global Reporting Initiative (GRI) standards, with a focus on SASB standards and UN Global Sustainable Development Goals. Recently, discussions have intensified on the need to introduce more precise criteria and procedures for determining materiality, which could ensure comparability of the results of the analysis of material topics in the reports of different companies. We support it and will be guided by the discussion results.

For the reporting purposes, a material topic is a topic that reflects the Company's significant long-term economic, environmental and social impact (positive or negative) on the countries/regions of operations and local communities, and/or affects the interests of may affect stakeholders. Each material topic includes a number of issues that may be rather specific to a particular territory or a time period, and, accordingly, may vary from report to report.

Our goal is to continuously improve the quality of corporate sustainability reporting and its informative value to stakeholders. To attain it we perform the following procedures:

• analysis of sustainability reports of oil and gas companies
• analysis of the results of an audit and external assurance of the report for the previous reporting period
• analysis of media publications
• analysis of legislative requirements for non-financial information disclosures, requirements of financial platforms, monitoring of non-financial reporting systems and major initiatives in this area
• surveys of PJSC LUKOIL unit heads, heads of LUKOIL Group entities, members of the Board of Directors and the Management Committee (once every two years), ranking of material topics and issues based on the results (scoring is applied)
• stakeholder engagement during a reporting year in various formats (roundtables, responses to inquiries, surveys of consumers and employees, working groups, participation in external initiatives, etc.).

The analysis findings are presented as a list of relevant issues. Based on qualitative analysis (repeatability, scale, rating issued by managers of PJSC LUKOIL, etc.), material issues are identified and grouped into material topics. The Sustainability Task Force approves the list of material topics. The Non-Financial Reporting Regulations are being developed by LUKOIL Group. Material topics and issues identified for 2019 can be found on two-page opening of the Sustainability Report (page 18).

The Report takes into account where possible the recommendations received after the external assurance of the Sustainability Report for 2018:

• Describe a procedure for identifying material topics
• Provide more detail on the impact of digitalization of the Company's activities on efficiency improvement, sustainable resource use, risk management (in progress as projects are being implemented)
• Describe the Company's experience in supplier assessment during tenders (environmental and social aspects of their activities) as part of implementing the principle of a responsible supply chain
• Other recommendations are taken into account and will be implemented in the course of the reporting information preparation.

1. Sources: https://www.datamaran.com/blog/materiality-corporate-accountability/; https://pages.datamaran.com/hubfs/Materiality%20best%20practice.pdf?__hstc=154248359.8c6101132400fe295773e6a290a018c2.1580502787058.1580547645408.1581252863433.4&__hssc=154248359.2.1581252863433&__hsfp=1696309790
### APPENDIX 3. GRI CONTENT INDEX

This report has been prepared in accordance with the GRI Standards (Core option)

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### GRI 101. Reporting Principles
- Sustainable development context
- Materiality
- Completeness
- Considering stakeholders’ opinions

### GRI 102. General Disclosures 2016

#### 1. Organizational profile

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<td>Our employees</td>
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The information on employment agreements is consolidated by the Company without a breakdown by permanent and temporary employees. Workers that are legally recognized as being self-employed, or individuals other than permanent and temporary employees of LUKOIL Group entities are not significantly engaged in operations.

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<td>Data on the supply chain are not consolidated</td>
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<td>102-11</td>
<td>Precautionary Principle or approach</td>
<td>As part of its existing risk management system, the Company employs a cautious approach in the performance of Environmental and Social Impact Assessment (ESIA) procedures and in planning its Environmental Safety Program activities.</td>
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#### 2. Strategy

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<td>102-20 Executive-level responsibility for economic, environmental, and social topics</td>
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<td>102-21 Consulting stakeholders on economic, environmental, and social topics</td>
<td>Stakeholder engagement</td>
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<td></td>
<td>102-22–102-28 The corporate governance system is detailed in the Annual Report for 2019, page 40-41, as well as on the corporate website: <a href="https://www.lukoil.com/Company/CorporateGovernance">https://www.lukoil.com/Company/CorporateGovernance</a></td>
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<td></td>
<td>102-29 Identifying and managing economic, environmental, and social impacts</td>
<td>Two-page opening LUKOIL Group’s strategic goals in sustainable development</td>
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<td>102-33 Communicating critical concerns</td>
<td>Sustainability and climate change management</td>
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<td></td>
<td>102-35–102-37 The corporate governance system is detailed in the Annual Report for 2019, page 40-41, as well as on the corporate website: <a href="https://www.lukoil.com/Company/CorporateGovernance">https://www.lukoil.com/Company/CorporateGovernance</a></td>
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<td></td>
<td>102-38 Highest-paid employees’ compensation to average pay of the other employees of the Company (excluding the highest-paid staff) ratio</td>
<td>Appendix 5. Individual Basic Indicators and RSPP Sustainability Indices Indicators</td>
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The indicator is disclosed partially, with regard to compensation of the Board of Directors and Management Committee members.

5. Stakeholder engagement

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6. Reporting practice

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**GRI 103. Management Approach 2016**

103-1 Explanation of the material topic and its boundary

Explanation of selecting material topics and boundaries is given before the disclosure of data on the material topic or issue

103-2 The management approach and its components

The management approach is disclosed in the Report before information on each material topic.

103-3 Evaluation of the management approach

Management approaches are evaluated within the framework of certification and supervisory audits of relevant management systems, and as part of corporate inspections. Information on those activities is contained in the Report.

**GRI 201. Economic Performance 2016**

201-1 Direct economic value generated and distributed economic value

Appendix 4. Individual GRI Standards and Indicators

201-3 Defined benefit plan obligations and other retirement plans

Social policy

134

**GRI 202. Market Presence 2016**

202-1 Standard entry level wage by gender in significant areas of operations

Social policy

133

202-2 Proportion of senior management hired from the local community (foreign operations)

Employment and diversity

131

**GRI 203. Indirect Economic Impact 2016**

203-1 Infrastructure investments and services supported

External social policy priorities

145

The indicator is disclosed partially.
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<td>Approach to tax</td>
<td>State Payments Reports</td>
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<td>State Payments Reports</td>
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<td></td>
<td>State Payments Reports have been published on the corporate website since 2015:</td>
<td></td>
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</tr>
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<td><a href="https://www.lukoil.com/InvestorAndShareholderCenter/RegulatoryDisclosure/">https://www.lukoil.com/InvestorAndShareholderCenter/RegulatoryDisclosure/</a></td>
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<td>Direct GHG emissions (Scope 1)</td>
<td>Goals and indicators</td>
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<td>GHG emissions intensity (Scope 1)</td>
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<td>Reduction of GHG emissions</td>
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305-6 Emissions of ozone-depleting substances (ODS)

The Company does not use ozone-depleting substances (ODS) on an industrial scale.

305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions


103-1, 103-2, 103-3 The management approach

Department responsible – HSE Department of PJSC LUKOIL

306-1 Water discharge by quality and destination Water

306-2 Waste by type and disposal method Waste

306-3 Significant spills Pipeline reliability and emergency preparedness

306-4 Transport of hazardous waste

LUKOIL Group entities do not transport hazardous waste. See the waste disposal methods in the Waste section.


307-1 Non-compliance with environmental laws and regulations Environmental safety program

GRI 308. Supplier Environmental Assessment 2016

103-1, 103-2, 103-3 The management approach


Department responsible – HSE Department of PJSC LUKOIL

308-1 New suppliers that were screened using environmental criteria

GRI 401. Employment 2016

103-1, 103-2, 103-3 The management approach

Department responsible – HR Policy Department of PJSC LUKOIL

401-1 New employee hires and employee turnover Personnel characteristics

401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees Social policy

Social benefits are granted to all employees, regardless of the type of employment.

GRI 402. Labor/Management Relations 2016

402-1 Minimum notice periods regarding operational changes Appendix 4. Individual GRI Standards and Indicators

GRI 403. Occupational Health and Safety 2018

403-1 Occupational health and safety management system Occupational safety

Department responsible – HSE Department of PJSC LUKOIL
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<td></td>
<td>Since the Company has in place an integrated HSE management system certified under ISO 14001 and OHSAS 18001 standards, the proportion of employees covered by this management system is the same in terms of environmental protection management and labor protection management.</td>
<td></td>
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**GRI 404. Training and Education 2016**

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<td>This information is disclosed without breakdown by gender and categories of employees in accordance with Company data collecting system.</td>
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<td></td>
<td>Information is provided without breakdown by gender and categories of employees, as this information is not consolidated and is not used to manage this issue in the Company</td>
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**GRI 405. Diversity and Equal Opportunity 2016**

| 405-1               | Diversity of governance bodies and employees                           | Sustainability and climate change management Personnel characteristics | 23, 129 |
| 405-2               | Ratio of basic salary and remuneration of women to men                 | Social policy                                                           | 133   |

**GRI 406. Non-Discrimination 2016**

<p>| 406-1               | Incidents of discrimination and corrective actions taken               | Human rights.                                                          | 35    |</p>
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<td>Department responsible - Regional Communications Department of PJSC LUKOIL</td>
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<td>411-1 Incidents of violations involving rights of indigenous peoples</td>
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<td>412-1 Operations that have been subject to human rights reviews or impact assessments</td>
<td>Human rights</td>
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<td>The management approach</td>
<td>External social policy priorities</td>
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<td>Department responsible - Public Relations Department of PJSC LUKOIL</td>
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<td>413-1 Operations with local community engagement, impact assessments, and development programs</td>
<td>External social policy priorities</td>
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<td></td>
<td>All the Company's subsidiaries of the business segments “Exploration and Production” and “Refining, Marketing and Distribution” (except for subsidiaries conducting trade operations) have programs in place related to local community engagement</td>
<td></td>
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<td>GRI 415. Public Policy 2016</td>
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<td>GRI 415-1. Political contributions</td>
<td>Political contributions – none. Incentive payments to representatives of state authorities – none.</td>
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<td>34-35</td>
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<tr>
<td>GRI 419. Socioeconomic Compliance 2016</td>
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<td>Ethics and statutory compliance</td>
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<td>Regulations: Antimonopoly Policy Department responsible - International Dispute Legal Support Department of PJSC LUKOIL</td>
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<td>419-1 Significant fines and non-financial sanctions for non-compliance with laws and regulations in the social and economic area</td>
<td>Ethics and statutory compliance</td>
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## APPENDIX 4. INDIVIDUAL GRI STANDARDS AND INDICATORS

### 201-1 (2016) Direct economic value generated and distributed, RUB mln

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<th>2018</th>
<th>2019</th>
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<tr>
<td>Direct economic value generated</td>
<td>6,010,089</td>
<td>8,058,338</td>
<td>7,899,281</td>
</tr>
<tr>
<td>Revenue</td>
<td>5,936,705</td>
<td>8,035,899</td>
<td>7,841,246</td>
</tr>
<tr>
<td>Income from financial investments</td>
<td>15,151</td>
<td>19,530</td>
<td>25,134</td>
</tr>
<tr>
<td>Income from disposal of tangible assets</td>
<td>58,233</td>
<td>2,919</td>
<td>32,801</td>
</tr>
<tr>
<td>Distributed economic value</td>
<td>-5,380,245</td>
<td>-7,277,460</td>
<td>-6,991,791</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>-3,908,114</td>
<td>-5,297,908</td>
<td>-5,076,133</td>
</tr>
<tr>
<td>Wages and salary</td>
<td>-127,851</td>
<td>-135,671</td>
<td>-143,602</td>
</tr>
<tr>
<td>Other employee payments and benefits</td>
<td>-1,135</td>
<td>-31,300</td>
<td>-31,366</td>
</tr>
<tr>
<td>Payments to capital providers, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• dividends paid</td>
<td>-141,499</td>
<td>-160,365</td>
<td>-184,787</td>
</tr>
<tr>
<td>• interest paid to creditors</td>
<td>-24,626</td>
<td>-35,304</td>
<td>-41,589</td>
</tr>
<tr>
<td>Budget contributions</td>
<td>-1,168,011</td>
<td>-1,608,127</td>
<td>-1,505,086</td>
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<tr>
<td>Societal investment</td>
<td>-9,009</td>
<td>-8,785</td>
<td>-9,228</td>
</tr>
<tr>
<td>Undistributed economic value</td>
<td>629,844</td>
<td>780,878</td>
<td>907,490</td>
</tr>
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### Notes.

- **Income from financial investments** = Income from interest on deposits + Income from interest on loans issued + Other financial income.
- **Income from disposal of tangible assets** = Income from sale and disposal of assets.
- **Operating expenses** = Operating expenses + Cost of purchased oil, gas and refined products + Transportation expenses + Selling, general and administrative expenses - Wages and salaries - Other employee payments and benefits + Exploration expenses.
- **Wages and salaries** = Labor pay (including labor pay, estimated liabilities, compensation and incentive payments, pension insurance, voluntary health insurance, voluntary accident insurance).
- **Other employee payments and benefits** = Employee reward program payments.
- **Dividends paid** = Dividends paid on Company shares + Dividends paid to non-controlling interest holders.
- **Interest paid to creditors** = Interest expense + Other financial expenses.
- **Budget contributions** = Taxes (other than income tax) + Excise taxes and export duties + Current income tax.
- **Societal investment** = Charity expenses.
**GRI 102. General information**

**102-13 Membership of associations**

The Company is a member of a number of trade and professional associations, including:
- The National Council for Professional Qualifications under the President of the Russian Federation
- The Council for Professional Qualifications in the Oil and Gas Industry of Russia
- Russian Union of Industrialists and Entrepreneurs (RSPP)
- The Airport Civil Aviation Association - LUKOIL-AERO is a member
- The Bulgarian Oil and Gas Association
- The Macedonian-Russian Chamber of Commerce and Industry, the Chamber of Commerce of Montenegro
- The National Oil Committee of Serbia, which is a member of the WPC (World Petroleum Council)
- The Association of Fuel Distribution Companies of Turkey (ADER). Akpet GAZ A.S. and Lukoil Eurasia Petrol A.S. are members of the organization
- The Association of Oil and Petroleum Product Distributors of Montenegro
- The Union of Energy and Extractive Industry of Montenegro - LUKOIL Montenegro DOO is a member of the Management Board of the organization
- The Union of Oil Companies of Serbia. Representatives from LUKOIL SERBIA PLC Belgrade hold positions in the management bodies; the subsidiary is an active participant in all the organization’s undertakings
- The Turkish LPG Association (Türkiye LPG Derneği) and the Union of Chambers and Commodity Exchanges of Turkey (TOBB). LUKOIL subsidiaries participate actively in discussions of practical issues related to the development of the Turkish gas market
- The Belgian Petroleum Federation
- The Croatian Energy Regulatory Agency (Hrvatska energetska regulatorna agencija). LUKOIL Croatia Ltd. does not occupy a position in the management bodies and regards its membership as strategic
- The Croatian Chamber of the Economy (Hrvatska gospodarska komora) - LUKOIL Croatia Ltd. does not occupy a position in the management bodies and views its membership as strategic
- The Netherlands Organization for the Energy Sector.

**102-41 Collective bargaining agreements**

The Company’s obligations to its workforce are set forth in the Social Code of PJSC LUKOIL, specified in the course of collective negotiations with trade-union organizations, and enshrined in the Agreement between the Company and the Trade Union Association of Public Joint-Stock Company LUKOIL Oil Company for 2015-2020, as well as in internal regulations. The freedom of collective negotiations is set out in the following clauses of the Agreement:

- “2.5.7. To provide representatives of trade-union organizations with the ability to participate in the work of the management bodies of the controlled organizations.”
- “2.5.9. To adopt internal regulations and decisions with due consideration for the opinions of (by agreement with) the union committee (council) of the corresponding trade-union organization in cases stipulated by the Russian Labor Code, the Industry Agreement, this Agreement, and the collective agreements of the controlled organizations.”

Trade unions are also granted the right to participate in management decision-making processes on an equal basis with the Company’s management.

**GRI 404-3. Percentage of employees receiving regular performance and career development reviews**

Performance reviews are conducted with respect to PJSC LUKOIL employees.

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<th>2018</th>
<th>2019</th>
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<tr>
<td>PJSC LUKOIL employee headcount, people</td>
<td>2,331</td>
<td>2,351</td>
<td>2,406</td>
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<tr>
<td>Total PJSC LUKOIL employees who received an official performance review, people</td>
<td>2,109</td>
<td>2,121</td>
<td>2,210</td>
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<tr>
<td>Percentage of the total number of PJSC LUKOIL employees</td>
<td>90%</td>
<td>90%</td>
<td>92%</td>
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402-1 Minimum notice periods regarding operational changes

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<thead>
<tr>
<th>Region</th>
<th>Minimum notice period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>3 months</td>
</tr>
<tr>
<td>Russia, Azerbaijan, Bulgaria, Moldova, Serbia, and Uzbekistan</td>
<td>2 months</td>
</tr>
<tr>
<td>Austria</td>
<td>6 weeks</td>
</tr>
<tr>
<td>Germany, Switzerland, Italy, Macedonia, Norway</td>
<td>1 month</td>
</tr>
<tr>
<td>Romania</td>
<td>For specialists 20 days; for executives 45 days</td>
</tr>
<tr>
<td>Finland, Turkey</td>
<td>14 days</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>15 business days or 1 month</td>
</tr>
<tr>
<td>Belarus</td>
<td>7 days (in the event of staff reductions or the liquidation of the enterprise - 2 months)</td>
</tr>
<tr>
<td>Egypt</td>
<td>1 week</td>
</tr>
<tr>
<td>Georgia</td>
<td>3 days</td>
</tr>
<tr>
<td>Iraq, Montenegro, Mexico</td>
<td>No notice period is established for employees</td>
</tr>
<tr>
<td>The USA</td>
<td>No universal period has been established for substantial changes to working conditions, however, under certain circumstances the law may prescribe special procedures and periods. For example, during mass staff reductions, a notice period of at least two months</td>
</tr>
</tbody>
</table>

404-2 Programs for upgrading employee skills and transition assistance programs

<table>
<thead>
<tr>
<th>Type of training</th>
<th>Training programs and courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>External training or education</td>
<td>Professional retraining, education in MBA, EMBA, DBA programs. The Company pays 50% of the cost of employee education. If the employee receives an additional professional education, including a postgraduate degree, where the employer is not the initiator, then educational leave is granted, and the respective employee receives a guarantee that they will not lose their positions while studying.</td>
</tr>
</tbody>
</table>
**APPENDIX 5. INDIVIDUAL BASIC INDICATORS AND RSPP SUSTAINABILITY INDICES INDICATORS**

**Economic effect of the implementation of the Energy Conservation Program, RUB mln**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,184</td>
<td>1,165</td>
<td>1,445</td>
</tr>
</tbody>
</table>

**Percentage of employees covered by the management systems certified to be compliant with the ISO 14001 and OHSAS 18001 standards**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>79%</td>
<td>84%</td>
<td>83%</td>
</tr>
</tbody>
</table>

**Remuneration to the Board of Directors and Management Committee’s members, RUB thousand**

<table>
<thead>
<tr>
<th>Remuneration</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of the Board of Directors</td>
<td>262,091</td>
<td>816,787</td>
<td>208,784</td>
</tr>
<tr>
<td>Members of the Management Committee</td>
<td>1,738,788</td>
<td>5,502,415</td>
<td>1,684,611</td>
</tr>
</tbody>
</table>

**APPENDIX 6. HUMAN RIGHTS**

As an international company operating in countries with different political systems and cultural traditions, LUKOIL recognizes the importance of respect for and observance of fundamental human rights and is guided by the provisions of the UN Universal Declaration of Human Rights. Our commitments and rules of engagement with local communities and indigenous peoples in the regions where we operate (including consultation activities) are set out in the following documents:

- Code of Business Conduct and Ethics of PJSC LUKOIL;
- Global Framework Agreement between IndustriALL Global Union1, the Russian Oil, Gas and Construction Workers’ Union, PJSC LUKOIL and the IATUO of PJSC LUKOIL;
- Agreement between the Company and the Trade Union Association of Public Joint-Stock Company LUKOIL Oil Company;
- Agreement between PJSC LUKOIL and the IATUO of PJSC LUKOIL for the foreign entities;
- The Social Code of PJSC LUKOIL.

These commitments cover all the areas of the Company’s activity and involve informing partners with whom LUKOIL Group entities interact. The Company has also adopted the relevant provisions of the voluntary Extractive Industries Transparency Initiative (EITI).

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1. Source: http://www.industriall-union.org/ru/archive/icem/globalnoe-ramnoe-soglashenie-mezhdru-icem-i-lukoyl. IndustriALL monitors the observance of labor rights by global companies operating all over the world.
2. Source: https://eiti.org/.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No child labor, forced and compulsory labor</td>
<td>ILO Conventions No. 29, 105, 138, 182 Principles 4, 5 of the United Nations Global Compact</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining</td>
<td>ILO Conventions No. 87 and 98 Principle 3 of the United Nations Global Compact</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Recognition of equal opportunities for men and women, equal payment for equal work, no discrimination</td>
<td>ILO Conventions No. 100, 111 EITI</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Recognition of the value of family relations, support for working women</td>
<td>ILO Convention No. 156</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>No discrimination on any grounds (hiring, labor pay, career development, retirement, gender, race, religious beliefs, etc.)</td>
<td>ILO Convention No. 111 Principle 6 of the United Nations Global Compact</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>No violence in any form</td>
<td></td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance with the working time standards</td>
<td>ILO Conventions No. 47, 106, 132, 171</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance of favorable working conditions, workers’ health, sanitary and hygienic standards (access to clean water, hot meals, sanitary conditions)</td>
<td>ILO Conventions No. 155, 161, 187</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Attention to security issues (including protection of personal data and protection of employees from criminal encroachments and pressure)</td>
<td>UN Universal Declaration of Human Rights, Article 12</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>---------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Respect for the rights of local communities, including resource use,</td>
<td>UN Declaration on the Rights of Indigenous Peoples ILO Convention No. 169 EITI</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>environmental conservation, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Businesses should avoid the resettlement of local residents, where possible,</td>
<td>International Finance Corporation Performance Standard 5 Land Acquisition and Involuntary Resettlement</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>and mitigate the impact on those who have been affected by such measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance with the indigenous peoples’ Free Prior and Informed Consent (FPIC) principle when implementing projects</td>
<td>International Finance Corporation Performance Standard 7</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Preservation of national and cultural traditions, values, arts and crafts</td>
<td></td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Contribution to the preservation of healthy environment</td>
<td>Principles 7, 8, 9 of the United Nations Global Compact EITI</td>
<td>•</td>
<td>•</td>
<td>HSE Policy of LUKOIL Group</td>
</tr>
<tr>
<td>Anti-corruption and bribery Fair access to benefits received from mining</td>
<td>Principle 10 of the United Nations Global Compact EITI</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>operations</td>
<td>(compliance with contractual terms, payment of taxes)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 7. ACRONYMS AND ABBREVIATIONS, DEFINITIONS AND CALCULATION FORMULAS

NAMES OF LUKOIL GROUP ENTITIES

Nizhny Novgorod oil refinery – LLC
LUKOIL-Nizhegorodnefteorgsintez

Oil refinery in Romania – PETROTEL-LUKOIL S.A.

Ukhta oil refinery – LLC
LUKOIL-Ukhtaneftepererabotka

Oil refinery in Bulgaria - LUKOIL Neftochim Burgas AD

Perm oil refinery – LLC
LUKOIL-Permnefteorgsintez

Oil refinery in Italy (ISAB) – ISAB S.r.l.

ABBREVIATIONS

APG - associated petroleum gas

CCUS (or CCS) - carbon capture, (utilization) and storage

CHPP - combined heat and power plant

DLS - distance learning system

EBITDA - Earnings before Interest, Taxation, Depreciation & Amortization

EITI - Extractive Industries Transparency Initiative

ESG - Environmental, Social and Corporate Governance

EOR - CO₂-Enhanced Oil Recovery

GHG - greenhouse gases

GPP - gas processing plant

HSE - health, safety and environment

HPP - hydro power plant

IMN - indigenous minorities of the North

KPI - key performance indicator

LLC - limited liability company

Media - all types of mass media

OJSC - open joint stock company

PPE - personal protection equipment

RES - renewable energy sources

STO - standard of an entity

SPP - solar power plant

TPU - territorial production unit

NAMES OF OTHER ENTITIES AND INITIATIVES

IATUO - International Association of Trade-Union Organizations of PJSC LUKOIL

ILO - International Labour Organization

ISO - International Organization for Standardization

UN - United Nations

PJSC LUKOIL - Public Joint Stock Company “Oil Company “LUKOIL”

RSPP - Russian Union of Industrialists and Entrepreneurs

ACCES – Arctic Climate Change, Economy and Society, a European research project that examines the impact of climate change on shipping in the Arctic region and the main economic sectors of the Arctic states, such as fisheries and oil and gas production.

CDP - Carbon Disclosure Project

SDGs - UN Sustainable Development Goals (the UN 2030 Agenda for Sustainable Development)

Climate Action 100+ – Global Initiative Climate Action 100+ (http://www.climateaction100.org/)

GRI - Global Reporting Initiative

WWF - World Wildlife Fund

OHSAS - Occupational Health and Safety Assessment Series
**UNITS OF MEASUREMENT**

- **boe** – barrel of oil equivalent
- **p. p.** – percentage point
- **toe, kg of oil equivalent** – tonne (kilogram) of oil equivalent
- **CO₂ E** – CO₂ equivalent

**INDICATORS, CALCULATION FORMULAS**

**Lost Time Accident Frequency Rate, LTAFR** = number of accidents / employee headcount for a reporting period × 1,000 employees.

**Lost Time Injury Frequency Rate, LTIFR** = number of lost time injuries / number of man-hours worked × 1,000,000 man-hours.

**Rate of Fatalities as a Result of Work-Related Injury** = number of fatalities as a result of work-related injury / number of hours worked × 1,000,000 man-hours.

The number of employees dismissed due to turnover includes employees dismissed for absenteeism and other violations of labor discipline, as well as due to the employee’s unsuitability for their position because of lack of skill; those who left on their own without serious cause (due to relocation, retirement, care for a child under 14 years of age, etc.) or by agreement between the parties (except for employees who were re-employed during the year).

**OIL REFINERY YIELD IS CALCULATED USING THE FOLLOWING FORMULA:**

\[ \text{Refinery yield} = \frac{Q-(FFO+L)}{Q} \times 100\% \]

where

- **Q** – is the actual volume of oil feed processed in crude distillation units (Atmospheric and Vacuum Distillation Units and Atmospheric Distillation Units), as well as received feed from the secondary refining processes (catalytic cracking, delayed coking, etc.);
- **FFO** – is the gross amount of furnace fuel oil (fuel oil for sale + liquid fuel for technological (own) needs);
- **L** – is the amount of irretrievable losses of oil refining, excluding the losses at crude oil electric desalting and dehydration plant.

When calculating the aggregated “Oil refinery yield” indicator, the actual volume of oil feed (Q) comprises the feedstock (oil, gas condensate) processed in crude distillation units (Atmospheric and Vacuum Distillation Units and Atmospheric Distillation Units), excluding other types of feed processed in secondary refining processes (in the framework of the intragroup supplies).

**DEFINITIONS**

**Claim relating to the breach of law** means an administrative or criminal claim filed against PJSC LUKOIL, its subsidiaries, or PJSC LUKOIL employees or its subsidiaries’ employees. Only completed cases in which a final decision has been rendered and which are not subject to further appeal are taken into account. Cases in which the entity was found not guilty are not taken into account in the disclosure of indicators.

**Payroll** means the indicator calculated in accordance with the instructions for filling out forms of federal statistical monitoring, approved by Order of Rosstat of 12 October 2008 No. 278 with amendments and additions approved by Order of Rosstat of 3 November 2009 No. 240. Payroll includes labor pay to employees in monetary and non-monetary forms accrued by an entity (including personal income tax and other withholdings) for worked and non-worked time, compensation payments related to the work schedule and working conditions, additional payments and increments, bonuses, one-time incentive payments, as well as regular allowances for food and accommodation in accordance with the methodology for filling in the payroll field in form No. P-4 “Information on headcount and labor pay”.

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1. High-Consequence Work-Related Injury is an injury having the following consequences: the employee died or was injured, and within six months of being injured the employee is unable to recover, has not recovered his health, or is not expected to recover his health.
Circulating water – means water that is consistently and many times used in processes based on the principle of closed systems without discharging into surface water bodies or sewage systems.

Material claim relating to the breach of law means a claim meeting one of the following criteria:

1) an award has become effective within a calendar year bringing PJSC LUKOIL, LUKOIL Group entities and/or their officials to administrative responsibility for the offense provided for in Chapter 8 of the Code of Administrative Offenses of the Russian Federation, with the imposition of the maximum possible fine provided for in the relevant article and/or a sanction in the form of administrative suspension of operations for up to 90 days;

2) a court decision has become effective to collect from PJSC LUKOIL, LUKOIL Group entities damages caused to the environment in accordance with the requirements of the Federal Law “On Environmental Protection”, in the amount not less than the one determined in accordance with the Regulations on Collecting and Processing Data on Material Contingent Liabilities and Uncertainties with Regard to Income Taxes for the purposes of the consolidated financial statements of OJSC LUKOIL for a respective year.

Significant incident with environmental impact means an emergency with environmental impact. An emergency with environmental impact can include destruction of facilities and/or technical devices used at the facilities of LUKOIL Group entities, or any other event resulting in one or a combination of the following environmental impacts:

1) pollution of surface and underground water bodies which resulted in exceeding the established standards for permissible impact

2) uncontrolled release of hazardous substances – release of a hazardous substance into the environment not provided for by technical regulations and/or project documentation that has not been restricted or contained by emergency protection systems and/or other systems and means of accident prevention and containment provided for by technical regulations and/or project documentation, or release in the absence of sufficient containment capability in such systems and means in the amount exceeding the threshold values for accidents presented in Tables 1 and 2 of Annex 4 to the Safety Manual “Methodological recommendations for the classification of man-made events in the field of industrial safety at hazardous production facilities of the oil and gas complex” dated 24 January 2018 No. 29, approved by Order of Rostechnadzor of 24 January 2018 No. 29.

Significant regions of LUKOIL Group’s operation mean regions where the number of employees of one LUKOIL Group entity is 500 or more: 11 regions in the Russian Federation, and Belarus, Bulgaria, Georgia, Iraq, Italy, Romania, Romania, Uzbekistan abroad.

ROUNDING VALUES

The total values of the indicators given in the Report may differ from the sum of the indicators as a result of rounding.

To the Management of PJSC LUKOIL

Introduction

We were engaged by the Management of PJSC LUKOIL (“the Management”) to report on Sustainability Report of LUKOIL Group (“the Group”) for 2019 (“the Report”) in the form of a limited assurance conclusion that, based on our work performed, nothing has come to our attention that causes us to believe that Management's Statement that the Report is prepared, in all material respects, based on the “core” version of the Global Reporting Initiative Sustainability Reporting Standards (“the GRI Standards”) and is free from material misstatement, is not fairly stated.

Management’s Responsibilities

Management is responsible for the preparation and presentation of the Report that is free from material misstatement in accordance with the GRI Standards, and for the information contained therein.

This responsibility includes designing, implementing and maintaining internal control system relevant to the preparation of the Report that is free from material misstatement, whether due to fraud or error. It also includes: determining the Group’s objectives in respect of sustainable development performance and reporting, including the identification of key stakeholders groups and their material issues; selecting applicable requirements of the GRI Standards; preventing and detecting fraud; identifying and ensuring that the Group complies with the laws and regulations applicable to its activities; selecting and applying appropriate policies; making judgments and estimates that are reasonable in the circumstances; maintaining adequate records in relation to the information included in the Report; ensuring that staff involved in the preparation of the Report are properly trained, information systems are properly updated and that any changes in the reporting system encompass all key business units.
Our Responsibilities

Our responsibility is to perform procedures to obtain evidence in respect of the Report prepared by Management and to report thereon in the form of a limited assurance conclusion regarding Management's Statement in respect of the Report based on the evidence obtained.

We conducted our engagement in accordance with International Standard on Assurance Engagements 3000 Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (ISAE 3000) issued by the International Auditing and Assurance Standards Board.

ISAE 3000 requires that we plan and perform our procedures to obtain a meaningful level of assurance about whether Management's Statement that the Report is prepared, in all material respects, based on the "core" version of the GRI Standards and is free from material misstatement, is fairly stated.

Our Independence and Quality Control

We have complied with the independence and ethical requirements established by the Rules on Independence of Auditors and Audit Firms and the Code of Professional Ethics for Auditors approved by the Audit Council of the Ministry of Finance of the Russian Federation and by the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants, which are based on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

We apply the International Standard on Quality Control 1, and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Procedures Performed

The procedures selected, and our determination of the nature, timing and extent of these procedures, depend on our judgment, including the assessment of risk of material misstatement during the preparation of the Report, whether due to fraud or error, our understanding of the Group's activities, as well as other engagement circumstances.

In making these risk assessments, we considered internal control system relevant to the Group's preparation of the Report in order to design procedures that are appropriate in the circumstances, but not for the purposes of expressing a conclusion as to the effectiveness of the Group's internal control.

Our engagement also included: assessing the appropriateness of the information included in the Report, the suitability of the criteria used by Management in preparing the Report in the circumstances of the engagement; evaluating the appropriateness of the methods, policies and procedures, used in the preparation of the Report and the reasonableness of estimates made by Management.

The procedures we developed based on the performed risk assessment are a combination of inspections, confirmations, recalculations, analytical procedures and inquiries.

Our procedures included, but were not limited to, the following:
inspection of the processes used by PJSC LUKOIL to identify topics and issues material to the Group’s key stakeholder groups, with the purpose of understanding such processes in the Group, as well as analysis of information from open sources on topics and issues material to key stakeholder groups of other organizations in the industry, with the purpose of determining the level of completeness of disclosure of such topics and issues in the Report;

− interviews with Management representatives and officers at the corporate center and subsidiaries regarding the sustainable development strategy and policies regulating material issues in areas of importance for the Group, stage of implementation of such policies, and procedures for collecting information on sustainable development;

− interviews with employees of the corporate center and subsidiaries responsible for providing the information for the Report;

− conducting procedures at the level of the following subsidiaries:
  − LLC LUKOIL-West Siberia, Kogalym;
  − LLC LUKOIL-Komi, Usinsk;
  − LLC LUKOIL-Yugnefteprodukt, Krasnodar,
  − LLC LUKOIL Uzbekistan Operating Company, Tashkent,

which were selected based on risk analysis using qualitative and quantitative criteria;

− comparing the information presented in the Report with data from other sources to determine its completeness, accuracy and consistency;

− assessing the completeness of qualitative and quantitative information on sustainable development against recommendations of the GRI Standards;

− reading and analyzing information on sustainable development included in the Report to determine whether it is in line with our understanding and knowledge of the Group’s sustainable development activity;

− recalculation of quantitative data and inspection of underlying documentation.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

To evaluate the Report, GRI Standards were used which are available at the link: https://www.globalreporting.org/standards/

Management states that the Report is prepared, in all material respects, based on the “core” version of the GRI Standards and is free from material misstatement.

Inherent Limitations
Due to the limitations inherent in any internal control structure, it is possible that errors or irregularities in the information presented in the Report may occur and not be detected. Our engagement is not designed to detect all weaknesses in the internal control system over the preparation and presentation of the Report, as the engagement has not been performed continuously throughout the reporting period, and the procedures were performed on a test basis.

Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Based on the procedures performed and described in this report, nothing has come to our attention that causes us to believe that Management’s Statement that the Report is prepared, in all material respects, based on the “core” version of the GRI Standards and is free from material misstatement, is not fairly stated.

Oussov A.I.
JSC “KPMG”
Moscow, Russia
26 June 2020

The Board of Non-Financial Reporting of the Russian Union of Industrialists and Entrepreneurs (hereinafter, the Board), established in accordance with a decision of the Administrative Office (Resolution dated 28 June 2007), have reviewed, at the initiative of PJSC LUKOIL, the Sustainability Report for 2019 (hereinafter, the Report) of LUKOIL Group (hereinafter, the Company, Group, LUKOIL).

The Company requested that the Board perform a public assurance review of the Report. The Board forms an opinion on the relevance and completeness of the information disclosed in the Report relating to the Company's performance, in accordance with the principles of responsible business practice set out in the Social Charter of Russian Business, and whether the Report complies with the provisions of the UN Global Compact, as well as Russian and international social responsibility standards.

In the period from 11 June to 26 June 2020 members of the Board studied the contents of the Report submitted by the Company and prepared this Conclusion in accordance with the Regulations for the Public Assurance Review of Corporate Non-Financial Reporting approved by the Board. Members of the Board have the necessary expertise in corporate social responsibility, sustainability, and non-financial reporting, comply with ethical requirements pertaining to independence and objectivity, and express their personal opinions as experts, and not the opinion of the organizations that they represent.

The Report was assessed based on the following criteria:
- Completeness implies that the Company has comprehensively presented its activities in the Report - its underlying topics for disclosure in the Report is described in sufficient detail, information is provided on procedures for assessing environmental and social aspects of suppliers and contractors activities as part of tender processes, and on effects of digitalization on the Company's sustainable development are described in more detail. Information on foreign entities, including environmental issues, is expanded.
- Information is considered relevant to the extent that it reflects the Company's activities in implementing the principles of responsible business practices disclosed in the Social Charter of Russian Business (www.rssp.ru).

The 2019 Report of the Company contains relevant information on the following aspects of responsible business practice:

**Economic freedom and responsibility:** The Report discloses key financial and production indicators and the events and results of the year. The Company's structure and geographic coverage are described in the Report, as well as the expansion of the Company's operations in foreign projects. The Report presents the Strategic Development Program of LUKOIL Group for 2018-2027. Information on commissioning of a lubricant plant in Kazakhstan, completion of the Belorechenskaya HPP reconstruction project is reported. The Report outlines the global trends of the industry development and examines the opportunities for growth in the context of transitioning to a low-carbon economy. The Company's production chain from oil and gas production to distribution of products and services, including electric power and heat, is described. Information on the implementation of the operational efficiency improvement programs, digitalization and investment program is also presented. The corporate governance and sustainable development risk management structure is described. The quality management system and compliance of a number of the Group's

Conclusions

Based on a review of the Report, public information posted on the official corporate website of the Company, and a collective discussion of the results of the independent assessment of the Report conducted by the members of the Board, the Board confirms the following:

The LUKOIL Group Sustainability Report for 2019 contains relevant information on key areas of responsible business practices, in accordance with the principles of the Social Charter of Russian Business, and discloses sufficiently complete information about the Company’s activity in these areas.

The recommendations of the Board, based on the results of the public assurance review of the Company’s previous report for 2018, are reflected in the 2019 Report. In particular, the procedure for identifying material values and strategic benchmarks, governance system and structure, achievements and key performance results, and its system of interacting with stakeholders.

The application by the Company of the international reporting system is taken into account during the public assurance review of the Report. However, confirmation of the Report's level of compliance with international reporting systems is outside the scope of this Conclusion.

The Company is responsible for the information and statements contained in the Report. The reliability of the data contained in the Report is not the goal of this public assurance review.

This Conclusion has been prepared for the Company, which may use it for internal corporate purposes, as well as for communications with stakeholders, publishing it without making any changes.
entities with the requirements of the ISO 9001:2015 international standard are reported. The report notes that sustainable development issues are included in the Board of Directors' agenda, and that sustainable development management function is introduced to Vice President for Sustainability and the Management Committee, and that the decision to develop long-term climate goals was made. Information is provided on the four strategic objectives of the Group in the area of sustainable development, which are identified as priorities and correlate with the UN's 11 Sustainable Development Goals and 15 targets. The activities of the Business Ethics Commission are described. The characteristics of the corporate integrated management system are provided. The results of the work of the Health, Safety and Environment Committee are presented. The Report also lists the Company's response to the coronavirus COVID-19 pandemic in the regions of its operation in the Russian Federation and abroad in the first half of 2020.

**Business partnerships:** The Report describes the activities and mechanisms related to interactions with various stakeholder groups. It is stated that the Company seeks to build long-term constructive relationships based on the principles of partnership, transparency and disclosure. The Company is reported to interact with government bodies and business partners in Russia at federal, regional and local levels, and to participate in an international dialogue on industry development issues. The participation of the Company's representatives in expert assessments of draft laws, the work in advisory groups and expert platforms on the environmental protection issues of greenhouse gas emissions regulation, charity and labor relations are highlighted. The Report describes the main events of the reporting period with regard to interaction with shareholders, suppliers and contractors, clients and employees. The new Shareholder Relations Policy of PJSC LUKOIL is introduced. Information is provided on the Company's interaction with representatives of the investment and financial communities as part of investment events in different countries, and the use of feedback channels. The key principles of the Company's HR and social policy are outlined. The Report highlights the social partnership system and indicates the coverage of employees under collective bargaining agreements. It is reported that the Company has a system of requirements to contractors and suppliers regarding their observance of sustainability standards in place, and information on the Company's relating control mechanisms is provided. The Report describes the mechanisms for client engagement. Information on feedback channels and monitoring their satisfaction is provided. The Report contains information on audits of the Company's production sites by clients. The Report highlights the Company's membership in international and Russian associations and unions, and its participation in international conferences.

**Human Rights:** It is stated in the Report that the Company provides zero tolerance to discrimination against employees on any grounds, and observing human rights and freedoms the Company adheres to international documents and to the legislation of the countries, where it operates. Corporate documents that set out the principles of safeguarding human rights – the Code of Business Ethics and the Social Code of PJSC LUKOIL – are mentioned. The Report contains information on the observance of labor rights of workers, including education and development activities, improving working conditions and occupational safety. The activities of trade unions are highlighted, as well as the cooperation with the International Association of Trade Union Organizations of PJSC LUKOIL, the International Trade Union Organization INDUSTRIA, and the International Labor Organization. The mechanism for addressing complaints and suggestions by workers is described. The Report comprises information on HR audits conducted to monitor compliance with employment rights at the Group's entities. Information is provided on the engagement with representatives of Indigenous Minorities of the North concerning decision-making on projects that affect their rights, the implementation of projects in support of Indigenous Minorities of the North, and on the costs for these purposes.

**Environment protection:** The Report discloses that the Company has implemented the Environmental Safety Program for 2019-2021, including measures for the rational use of associated petroleum gas and for the reliability of pipeline transportation. Information is provided on the approval of a new Program for industrial safety, improvement of working conditions and safety, prevention and liquidation of emergency situations of the Group’s entities for 2019-2021. The Report notes the approaches and the progress achieved in managing climate change issues, as well as the decision to integrate climate matters into the Strategic Development Program of the Group. The Report states that the HSE Management System has been certified for compliance with ISO 14001 and OHSAS 18001 standards, and the transition to ISO 45001:2018 (instead of OHSAS 18001) is planned in 2020. The Report provides information on implemented measures aimed at wastewater treatment in oil and gas production entities, at preserving biodiversity for facilities operating in the Arctic zone of the Russian Federation. It is reported on the collaboration with protected natural areas and with social environmental organizations, and on the hotline on environmental issues in place. The main goals and directions for implementing the Company’s projects related to the renewable energy sector are presented, information on participation in partner projects is provided. It describes projects designed to mitigate the adverse impact on the environment, and to reduce or recycle waste. The Report contains information on the Company’s successful testing of the Russian technology “Beluga” for underwater pipe repair. The principal approaches to solving the problem of sustainable water use are described and measures to optimize water consumption and to launch new water recycling systems are presented. The Company's activities on biodiversity conservation are highlighted. A wide range of gross and specific indicators of the environmental impact is presented, including indicators on the atmosphere, on water resources, and on greenhouse gas emissions. It is noted that during the reporting year LUKOIL became a member of the Working Group of the Russian Ministry of Natural Resources for the implementation of the federal project “Conservation
of Biological Diversity and Development of Ecotourism”. Energy consumption and energy efficiency data, and environmental expenses in Russia and foreign entities are provided. The implementation of projects under the World Bank’s “Zero Routine Flaring by 2030” initiative is reported.

**Participation in the development of local communities:** The Report discloses the Group’s external social policy directions in regions, and the mechanisms used, including partnerships with authorities as part of cooperation agreements. The Report highlights the continuing priorities of social activities, as well as the long-term nature of a number of programs and regional projects financed through the LUKOIL Charity Fund and directly by the Group entities. The directions of the main social and charitable programs are listed. The Report presents information on the results of the Social and Cultural Projects Competition held by the Charity Fund together with the Group’s entities in Russian regions, on the expansion of the contest geography to Romania. It sets out the criteria used to appraise participation in the development of local communities.

**CONCLUDING REMARKS**

Overall, the Report provides a full picture of the responsible business practices of LUKOIL Group, its strategies and governance system, and the Company’s impact on society and the environment. The Report applies an integrated approach to disclosing information across key lines of business, including a substantial number of performance indicators related to the economic, environmental, and social aspects. The Report shows the extent to which the Company’s performance complies with the UN’s Sustainable Development Goals and the objectives for their implementation, which are in line with the Company's own strategy benchmarks. The Company is consistently expanding the information on sustainable development factors in foreign entities in its reports.

The Report was prepared based on the reporting standards of the sustainable development of the Global Reporting Initiative (GRI Standards), as well as on other Russian and international documents, including: the UN Global Compact, the Social Charter of Russian Business, the Basic Performance Indicators of the Russian Union of Industrialists and Entrepreneurs, the Corporate Reporting Guidelines for Sustainable Development Goals, and the IPIECA Guidelines for Voluntary Sustainability Reporting in the Oil and Gas Industry, which ensure the consistency of information across a number of reporting cycles as well as comparability with the reports of other companies.

The 2019 Report is the Company’s tenth non-financial report, which attests to consistent progress in the development of non-financial information reporting process. The Company uses various methods of independent assessment and of confirmation of the information contained in the Report (professional audits and public assurance), thereby reaffirming its responsible approach to ensuring the quality of the information disclosed.

**RECOMMENDATIONS**

While noting the merits of the Report, the Board draws the Company’s attention to a number of aspects that are important for stakeholders relating to the relevance and completeness of the information disclosed, and recommends taking them into account in future reporting cycles.

The Board notes that the recommendations, based as they are on an analysis of the Company’s previous reports, will prove useful in the future reporting practices of the Group.

The Report contains the analysis and quantitative assessments of the Company’s contribution to the achievement of the priority UN Sustainable Development Goals 2030. We recommend having the results obtained aligned with the implementation of LUKOIL’s strategic goals, that the reports include measurable targets for key sustainability areas and SDGs of priority. It would also be practical to highlight the Company’s contribution to national projects aligned with the objectives of its corporate programmes and specific results obtained in the subsequent reporting cycles. The presence of this information in reports enhances the social significance of corporate projects, additionally confirming the Company’s social responsibility.

The Company holds a leading position on the integration of climate agenda into its activities and aims at contributing to addressing climate change while ensuring economic growth alongside. This topic requires constant focus and highlighting in reports, and it is recommended to continue paying attention to it, disclosing information on the Company’s actions and achieved results in terms of climate agenda.

The Report contains information on sustainability risk management issues in the risk management. It might be advisable to accompany this information with an assessment of the financial consequences of risk mitigation measures in the future, which would increase the value of the Report for representatives of the investment community, financial institutions and business partners.
The Report notes the systematization of biodiversity conservation measures, and criteria developed to produce tangible results. We recommend that the following reports highlight this work more extensively and demonstrate the achieved results.

In order to provide the completeness of disclosed data it is recommended to supplement the reported information on the extent of the contaminated land rehabilitation further with details of the total land area to be rehabilitated, which will result in better understanding of the Company’s tasks and results achieved.

Attention should also be paid to the importance of disclosing information on the amount of landfilled waste, given the importance of these issues for the current environmental agenda. For the same reason, the positive practice of disclosing information about the reliability of pipelines should be continued. It is also recommended that the data presented in dynamics be accompanied by comments and explanations, in particular, regarding greenhouse gas emissions.

It is recommended to include in the following reports the evidence of feedback of program participants and give examples of their assessments regarding development and implementation of social programs. This information would confirm the effectiveness of the engagement mechanisms with stakeholders used by the Company. Attention should also be paid to enhancing the positive perception of the reporting information via a wider inclusion of feedback examples, including opinions on the Company’s performance on topical public issues pertaining to the Company. It would be useful to include information on the Company’s responses to various stakeholder requests, including those from investors.

To ensure greater transparency of the process of identifying and selecting material topics disclosed in reports, it is recommended to involve representatives of key stakeholder groups directly in this process in the future, which will allow more accurately considering their current requests and reflect them in the reported data.

The Board of Non-Financial Reporting of the Russian Union of Industrialists and Entrepreneurs, after issuing a positive assessment of the Report which supports the Company’s adherence to the principles of responsible business practices and highlighting the consistent development of the reporting, confirms that the LUKOIL Group Sustainability Report for 2019 has passed public assurance.
CERTIFICATE

of Public Endorsement
of a Corporate Non-Financial Report

Sustainability report
of LUKOIL GROUP 2019

has received public endorsement
by the RSPP Council on Non-Financial Reporting

A detailed opinion of the RSPP Council regarding public endorsement of the Sustainability Report of LUKOIL GROUP for 2019 has been sent to the Company, which may publish it without amendment and use it both for corporate purposes and for the purposes of stakeholder engagement.

Registration number 159.01.014.01.19

RSPP President A.Shokhin

Moscow, 2020
APPENDIX 10. REPORTING BOUNDARIES
CONTACT INFORMATION

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The data on future production and investment plans contained in the Report are based on forward-looking information. Such words as “believe”, “anticipate”, “expect”, “estimate”, “intend”, “plan” and similar expressions indicate the forward-looking nature of the statement. Actual results may differ from expected results, estimates and intentions contained in the forward-looking statements. LUKOIL does not guarantee that the anticipated operating results contained in the forward-looking statements will in fact be achieved. In each case, such statements represent only one of many possible outcomes, and thus they should not be considered as the most likely outcome.