

## 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

	CHANGES DURING 2019	KEY MID-TERM TASKS
 <p><b>GOVERNANCE</b></p>	<p>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</p>	<p>Plans:</p> <ul style="list-style-type: none"> <li>• further enhancement of the climate change management system</li> </ul>
 <p><b>STRATEGY</b></p>	<p>Implemented:</p> <ul style="list-style-type: none"> <li>• scenario analysis of the influence of climatic factors on the Company's business to 2030;</li> <li>• analysis of the strategies of oil and gas companies</li> </ul>	<p>Plans:</p> <ul style="list-style-type: none"> <li>• to develop long-term goals to reduce GHG emissions, with account taken of the Paris Agreement</li> <li>• to evaluate GHG reduction potential.</li> </ul> <p>The work will be supervised by Vagit Alekperov, President of PJSC LUKOIL.</p>
 <p><b>RISKS</b></p>	<p>The Company has the Risk Management System in place, which also anticipates management of climate-related risks</p>	<p>Plans:</p> <ul style="list-style-type: none"> <li>• to implement the procedure for assessing climate change influence on production facilities and infrastructure</li> </ul>
 <p><b>INDICATORS</b></p>	<p>Data related to GHG emissions is provided in the Sustainability Report, the Annual Report, The Data Book and the CDP</p>	<p>Plans:</p> <ul style="list-style-type: none"> <li>• to perform an extensive GHG emissions inventory</li> <li>• to determine the reporting climate boundaries pursuant to the GHG Protocol<sup>1</sup></li> </ul>

<sup>1</sup> 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).

## MANAGEMENT: ROLE OF THE BOARD OF DIRECTORS

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<sup>1</sup>. 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.

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 includes 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.



**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.**

## AREAS FOR ACTION

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.

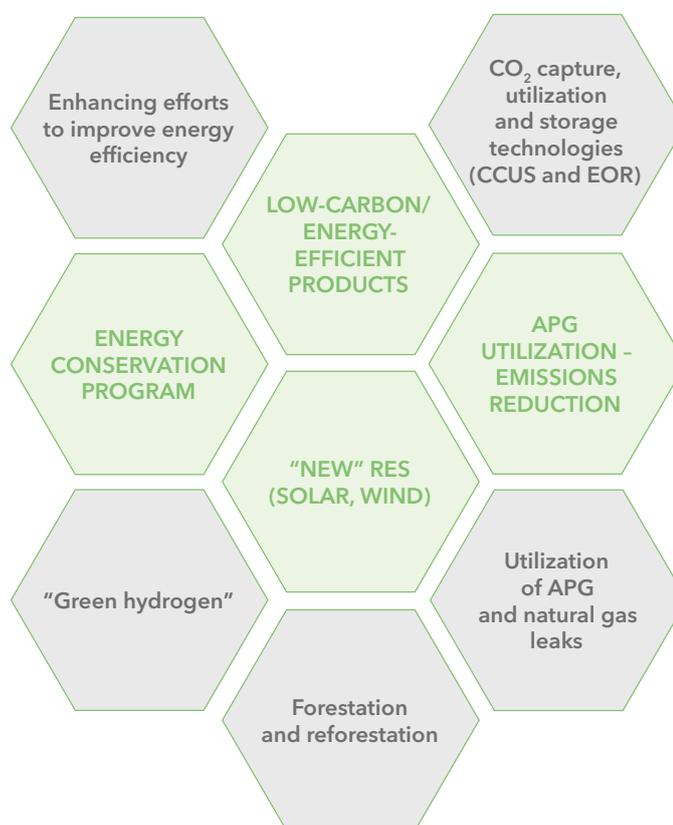
Our ambition for the future is to satisfy our customers' demand for energy resources, while significantly reducing GHG emissions and preserving financial stability.



**Current projects to reduce climate impacts**



**Low-carbon project areas under consideration**



<sup>1</sup> "Major Trends in the Global Liquid Hydrocarbon Market to 2035" report: <http://www.lukoil.ru/Business/Futuremarketrends>.



## 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 CO<sub>2</sub>E 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 CO<sub>2</sub> capture and storage technologies (CCS and EOR), find solutions designed to reduce natural gas and CO<sub>2</sub> emissions, and implement compensatory measures.