

EMISSIONS

Oil and gas production companies in Russia account for the biggest share of air pollutant emissions across LUKOIL Group (about 77% in 2020), mainly due to APG flaring along with power generating entities burning fuel for power and heat generation.

In 2020, emissions generated by LUKOIL Group entities decreased by 8%, while emissions from Russian oil and gas producers were down 7%. Carbon monoxide accounts for the biggest share of emissions (36%).

The reduction of pollutant emissions into the atmosphere is a priority area of the Environmental Safety Program integrated into the Clean Air subprogram. Significant funding (an average of at least 50 percent of the

ESP budget) is allocated annually for its implementation. The key initiatives of the Environmental Safety Program aimed at reducing pollutant emissions include:

- equipment replacement or upgrade, application of the best available technologies 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.

In 2020, oil and gas production entities continued the Program for the sustainable use of APG (including the Russian fields in the Caspian Sea and Yamal, and also the Imilorskoye field) and activities to upgrade flaring systems, including the availability of sootless flaring.

Gas stations are being equipped with breathing valves and oil product vapor recirculation and recovery systems, significantly reducing atmospheric emissions. The program for transferring petroleum storage depots to a bottom loading system was set into motion. The share of production sites with implemented bottom loading system is expected to increase from 36 percent to 95 percent by 2024.

Gross emissions of pollutants into the atmosphere (net of CO₂) by LUKOIL Group entities, thousand tonnes

	2018	2019	2020
LUKOIL Group	451	429	395
Russian entities	433	402	376
Foreign entities	18	27	19
including by pollutant type:			
NO _x emissions	49	50	45
SO ₂ emissions	37	41	31
solid particle discharges	15	15	14
CO emissions	156	155	143
hydrocarbon emissions	74	61	49
volatile organic compounds (VOC)	116	106	111
emissions of other pollutants	4.2	1.3	1.7

Note.

Detailed information, including changes in reporting boundaries year-on-year, is provided in [Appendix 7](#).