Environmental Report 2013

GAZPROM

Unlocking the Planet's Potential

OAO Gazprom
Environmental Report 2013

Contents

Letter of the Deputy Chairman of Gazprom Management Committee

Dear readers,

On behalf of the OAO Gazprom Management Committee, I would like to bring to your attention the Environmental Report and present actions of Gazprom Group which provide for a sound nature management and environmental protection in 2013.

In order to promote the corporate mechanisms of voluntary environmental responsibility, the Chairman of Gazprom Management Committee A.B. Miller annunciated 2013 as the Year of Ecology in OAO Gazprom.

Our subsidiary companies eagerly supported this initiative by implementing more than 8 thousand measures in process production upgrade, environmental rehabilitation, promotion of environmental knowledge, improvement of population environmental living conditions in the regions of the Gazprom operations.

In the Year of Ecology when out of duty more than 70 thousand Gazprom employees across Russia, were engaged in development and greening of cities and residential areas, recovery of forest, recreational and special protected natural areas. More than 500 measures were implemented – lectures, competitions, exhibits, exhibitions – in environmental education trainings for children and the young, which encompassed about 45 thousand preschool and primary school children, junior and senior students.

We understand that our major and large-scale environmental action is the national economy gasification because the switch from coal and oil to natural gas in the thermal energy sector and transport provides for a significant reduction of the air contamination in the Russian Federation. We can already see the real environmental rehabilitation in the places where the gas has come.

Today development of an advanced gas infrastructure in the East of Russia and merging it with the national Unified Gas Supply System is one of the Gazprom cricial strategic tasks and one of the “green growth” drivers for the Eastern Siberia and the Far East economy.

Sustainable social and economic development of the country, ensuring the environmental safety, depends much on social and environmental responsibility of the corporation and the environmental competence and awareness of each employee. Therefore, we decided to continue further with the Year of Environmental Culture in Gazprom in 2014.

Continuous improvement of the corporate environmental protection management, enhancement of production energy efficiency, application of best available and innovative technologies, a combination of mechanisms of obligatory and voluntary environmental responsibility ensure further mitigation of the Gazprom environmental impact.

Deputy Chairman of
OAO Gazprom Management Committee,
Chairman of Coordination Committee
for Environmental Protection and Energy Efficiency

V.A. Markelov

Introduction

In the Environmental Report for 2013 the information on the activity of the *Gazprom Group* companies in the environmental protection sphere is provided, including the actual indicators and measures taken for reduction of the air, water and land resources impact. The Report describes the management issues of control and financing of environmental protection, scientific studies and technical upgrade of the production complex, aimed at improvement of the environmental safety of the *Gazprom Group* entities.

The data on environmental indicators of the production activity received as the result of processing of reports officially provided by the companies is given in general for the *Gazprom Group*, for OAO Gazprom (including recent 5 years) and for independent Group companies contributing greatly to the activity aspects under study.

The term "OAO Gazprom" used in the Report is referred to the head company of the *Gazprom Group* – OAO Gazprom and a complex of its 100% subsidiary companies and organizations.

The terms Gazprom neft Group and Gazprom neft mean OAO Gazprom neft and its subsidiary companies. The term Gazprom neftekhim Salavat Group means OAO Gazprom neftekhim Salavat and its subsidiary companies.

The terms "electric energy complex of the *Gazprom Group*" and *Gazprom Energoholding* mean OOO Gazprom Energoholding and its subsidiary companies (OAO Mosenergo, OAO OGK-2, OAO TGC-1, OAO Murmanskaya CHPP, OAO MIPC, OAO Heating Network of Saint Petersburg).

The companies of the *Gazprom Group* gas complex include OAO Gazprom, Vostokgazprom Group, ZAO Purgaz, OAO Tsentrgaz, Sakhalin Energy Investment Company Ltd., OAO Severneftegazprom, OAO Gazpromtrubinvest, OAO Gazprom gazoraspredeleniye, OAO Spetsgazavtotrans.

The *Gazprom Group, Gazprom* and the *Group* mean an aggregate of gas complex companies, *Gazprom neft Group*, *Gazprom neftekhim Salavat*, *Gazprom Energoholding*.

The environmental impact indicators and the environmental and economic indicators are given for the *Gazprom Group* in relation to the Russian Federation area.

This report included the information from the following 100% subsidiary companies and organizations of the *Gazprom Group*:

OOO Gazprom dobycha Astrakhan
OOO Gazprom dobycha Irkutsk
OOO Gazprom dobycha Krasnodar
OOO Gazprom dobycha Kuznetsk
OOO Gazprom dobycha Nadym
OOO Gazprom dobycha Noyabrsk
OOO Gazprom dobycha Orenburg
OOO Gazprom dobycha Urengoy
OOO Gazprom dobycha shelf
OOO Gazprom dobycha Yamburg
OOO Gazprom transgaz Volgograd
OOO Gazprom transgaz Yekaterinburg
OOO Gazprom transgaz Kazan
OOO Gazprom transgaz Krasnodar
OOO Gazprom transgaz Makhachkala
OOO Gazprom transgaz Moscow
OOO Gazprom transgaz Nizhny Novgorod
OOO Gazprom transgaz Samara
OOO Gazprom transgaz Saint Petersburg
OOO Gazprom transgaz Saratov
OOO Gazprom transgaz Stavropol
OOO Gazprom transgaz Surgut
OOO Gazprom transgaz Tomsk
OOO Gazprom transgaz Ufa
OOO Gazprom transgaz Ukhta
OOO Gazprom transgaz Tchaikovsky
OOO Gazprom transgaz Yugorsk
OOO Gazprom geologorazvedka
OAO Daltransgaz
OOO Gazprom UGS
OOO Gazprom pererabotka
OOO Gazprom energo
OOO Gazprom liquefied gas
OOO Gazprom avia enterprise
OOO Gazpromtrans
OOO Gazflot
OOO Novy Urengoy gas chemical complex
OOO Gazprom mezhregiongaz
OOO Gazprom podzemremont Orenburg
OOO Gazprom podzemremont Urengoy
OOO Gazprom tsentrremont
OOO Gazprom geotechnologii
OOO Gazprom invest
ZAO Gazprom invest Yug
OOO Gazprom sotsinvest
ZAO Yamalgazinvest

The *Gazprom Group* stands for OAO Gazprom (with all above listed subsidiary companies and organizations and the following companies:

Gazprom neft Group
Gazprom neftekhim Salavat
ZAO Purgaz
OAO Tsentrgaz
Vostokgazprom Group
OOO Gazprom Energoholding
and its subsidiary companies:
- OAO Mosenergo
- OAO OGK-2
- OAO TGC-1
- OAO Heating Network of Saint Petersburg
- OAO Murmanskaya CHPP
- OAO MIPK

Sakhalin Energy Investment Company Ltd. (Sakhalin Energy)
OAO Severneftegazprom
OAO Gazpromtrubinvest
OAO Gazprom gazoraspredeleniye
OAO Spetsgazavtotrans

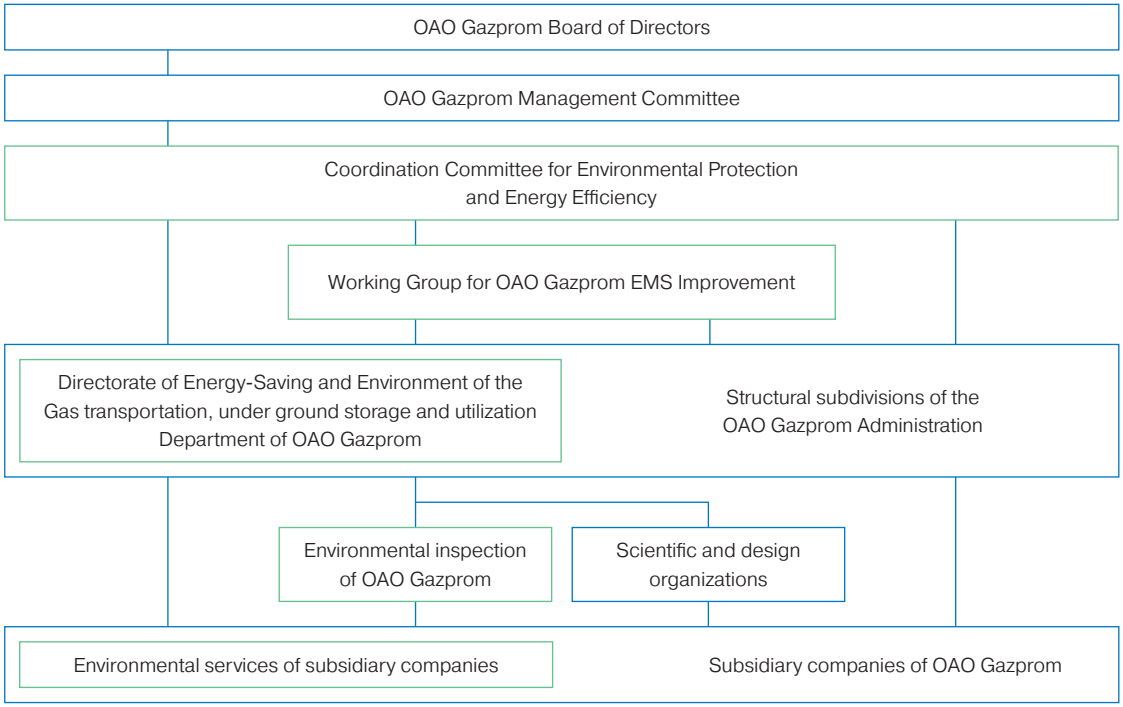
and foreign subsidiary companies of OAO Gazprom:
OAO Gazprom transgaz Belarus
ZAO Gazprom Armenia

Environmental Protection Management

Environmental Management System

The Environmental Management System (EMS) of *Gazprom* is a developed vertically integrated structure of environmental protection control from the OAO Gazprom Administration level, administrations of subsidiary and dependent companies and organizations to their branches and production facilities.

The environmental policy of OAO Gazprom and environmental polices of subsidiary companies define the objectives and obligations of subsidiary companies in terms of reduction and prevention of the adverse environmental impact of production. This allows the companies of the *Group* to lineup their activity to meet legislative environmental requirements, control and prevent contamination, and ensure continuous improvement of the environmental performance.



The supreme element of the OAO Gazprom EMS is the Management Committee of OAO Gazprom. OAO Gazprom Coordination Committee for Environmental Protection and Energy Efficiency formed by OAO Gazprom Order No. 280 dated October 17, 2007, and including the majority of the Management members and heads of profile departments of OAO Gazprom, ensures complex control and general coordination activity of OAO Gazprom structural subdivisions and subsidiary companies, and interaction with governmental authorities and public organizations on the environmental protection.

The implementation of the OAO Gazprom Environmental Policy in the subsidiary companies and organizations and decisions of the OAO Gazprom Coordination Committee and Management is coordinated by the Directorate of Energy-Saving and Environment of OAO Gazprom Gas transportation, under ground storage and utilization Department.

In 2013 the following questions were examined at the meetings of OAO Gazprom Coordination Committee for Environmental Protection and Energy Efficiency:

— introduction of technologies assisting in reduction of fuel and energy resources consumption and improvement of environmental safety of OAO Gazprom facilities, such as technologies of GPU exhaust gas heat utilization, use of turboexpander power plants and mobile compressor stations;
— formation and use of one pilot block specimen for methane-hydrogen mix production at one compressor station;
— results of implementation of fuel and energy resources saving measures of the OAO Gazprom Energy Saving Program in 2012;
— results of the environmental activity of the Gazprom Group in 2012 and the process of implementation of measures for holding a Year of Ecology in OAO Gazprom in 2013;
— environmental aspects of the LNG plant construction in Vladivostok.

The corporate environmental expertize system and the corporate-level environmental control system were formed and operate successfully as tools of voluntary environmental responsibility in OAO Gazprom. Scientific studies and design and exploration work in the environmental sphere carried out on *Gazprom* request are the integral part of control.

The Environmental policy of OAO Gazprom was approved by the Board of Directors in October 2011 and was recommended for use in the *Gazprom Group* companies. Implementation of the Environmental Policy is ensured by OAO Gazprom Coordination Committee for Environmental Protection and Energy Efficiency, which controls and fulfills comprehensive assessment of the Company's environmental activity.

OAO Gazprom EMS integrates the control bodies of the head company and 29 100% subsidiary companies exploring, producing, transmitting, storing and refining hydrocarbons. OAO Gazprom EMS was certified in 2011 by an independent international certification body Det Norske Veritas and passed successfully control audits for compliance with the international standard ISO 14001:2004 in 2012 and 2013. In the process of audits the OAO Gazprom administration and subsidiary company employees incorporated to the EMS scope demonstrated a high level of expertise and competence in environmental management and determination for its continuous improvement. The positive certification results testify to the fact that OAO Gazprom activity in the environmental protection meet the requirements of international standards.

In order to ensure complex approach and coordination of the activity of OAO Gazprom structural subdivisions for improvement of the environmental management system, there is a constantly operating Working Group for OAO Gazprom EMS Improvement. The head of the group is O.E. Aksyutin – a member of the Management Committee, Head of the Gas Transportation, Underground Storage and Utilization Department of Gazprom.The main tasks of the Working Group include:

— organization, coordination and planning of works in EMS including identification and assessment of environmental aspects of subsidiary companies' activities in the EMS implementation sphere;
— analysis of EMS activity and preparation of recommendations and proposals for its further development, including justification of proposals on updating the environmental policy and procedures of EMS;
— justification of purposes and tasks for the planned periods of environmental policy implementation;
— preparation and improvement of documents on EMS formation, introduction and successive improvement issues.

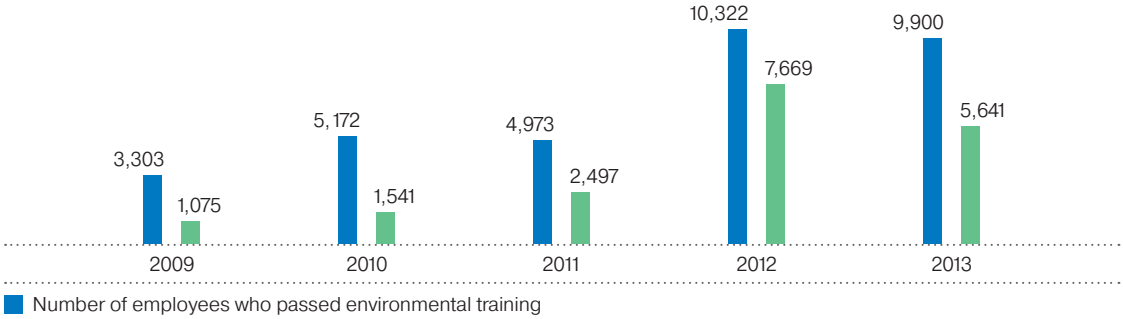
In 2013 the control audit Det Norske Veritas confirmed the correspondence of the OAO Gazprom Environmental Management System to the requirements of the international standard ISO 14001:2004.

In 2013 almost all *Gazprom Group* companies reporting in the environmental protection sphere had certified EMS or declared their compliance with ISO 14001:2004 requirements. They include – OOO Gazprom Energoholding and its subsidiary companies (OAO Mosenergo, OAO OGK-2, OAO TGC-1), OAO Gazprom neft, OAO Gazprom neftekhim Salavat, Sakhalin Energy, ZAO Severneftegazprom etc.

Personnel training is arranged in the *Group* for provision of personnel's competence and knowledge. In 2013, 9,900 employees passed the environmental training in general for the *Group* (including 5,641 – on the EMS), among them in OAO Gazprom – 7,536 employees (4,887 – on the EMS), in the *Gazprom neft Group* – 1,913 employees (711 – on the EMS).

Environmental training of personnel, *Gazprom Group*, 2009–2013, pers.

More than 33 thousand people passed environmental training in 2009–2013 in the *Gazprom Group*.



Competition of environmental services and ecologists of subsidiary companies OAO Gazprom

In 2013 OOO Gazprom transgaz Samara became the winner of the competition based on the work results of services and specialists-ecologies in 2012 (Head of the Environmental Protection and Energy Saving Department – D.A. Neretin).

Winners of the Competition of Ecologists:

— Boyarchuk Nadezhda Aleksandrovna – Executive Director General of the OOO Ecological& Analytical Center of Gas Industry;
— Butusova Natalya Ilyinichna – Leading Environmental Protection Engineer of the Environmental Protection and Energy Saving Department of OOO Gazprom transgaz Tchaikovsky;
— Priymak Tatiana Yevstafyevna – Leading Environmental Protection Engineer of the Chemical Laboratory of Tolyatti LPUMG of OOO Gazprom transgaz Samara.

Environmental targets and programs

According to the Environmental Policy, the underlying principle of the Company's business is sustainable development construed as intense economic growth accompanied by maximal conservation of natural resources and preservation of a favorable natural environment for future generations. The long-term strategic goals in the environmental protection area include:

— minimizing specific negative man-made impacts on the natural environment (per marketable product unit);
— increasing the efficiency of non-renewable natural resources and non-renewable energy sources utilization;
— involving the Company's entire personnel in the activities aimed at reducing environmental risks, improving the environmental management system and performance indicators in the environmental area.

Valuable environmental aspects of the activity of subsidiary companies are defined in compliance with the established "Sequence of Identification of Environmental Aspects in OAO Gazprom Environmental Management System". In 2013 methane emissions resultant from gas pipeline repair and nitrogen oxide emissions from compressor station operations, as well as waste water discharge and waste landfilling referred to the *Gazprom* significant environmental aspects. Programs of environmental measures aimed at implementation of targets set are developed and fulfilled within the frames of implementation of OAO Gazprom Environmental Policy and EMS introduction by subsidiary companies and organizations on the basis of the annual assessment of the environmental aspects.

Fulfillment of corporate environmental targets in OAO Gazprom in 2013

Corporate environmental target	Organizations in the sphere of EMS implementation	Fulfillment as compared to the basic level of 2008
Methane emissions reduction	All subsidiary companies producing, transmitting, storing and refining gas and condensate	Reduction by 11%
Reduction of per-unit emissions of nitrogen oxides (target deadline is 2018)	All subsidiary companies transmitting gas	Specific emissions did not grow
Lowering of waste and under-treated water discharge into surface water bodies	All subsidiary companies	Reduction by 21%
Lowering of waste disposal share	All subsidiary companies	Increase by 3%
Lowering of the payment for exceeding the allowed impact as an integral indicator of the negative environmental impact	All subsidiary companies	Reduction by 56%
Lowering of gas consumption for own process needs	All subsidiary companies transmitting gas	Reduction by 15%
EMS introduction in compliance with the international standard ISO 14001:2004	All subsidiary companies	EMS was introduced in the OAO Gazprom Administration and in 29 subsidiary companies

The EMS Working Group specified corporate objectives on the basis of the results of monitoring of plans fulfilled by OAO Gazprom subsidiary companies for achievement of the established environmental targets of OAO Gazprom and analysis of valuable environmental aspects for the period of 2014–2016. The updated corporate environmental targets for the period of 2014–2016 were approved on September 29, 2013, by the Deputy Chairman of OAO Gazprom Management Committee V.A. Markelov. The indicators of 2011 were assumed as the basic level for assessment of the parameters of achievement of updated environmental targets.

Corporate environmental targets of OAO Gazprom for the period of 2014–2016	Set up
Reduction of methane emissions into the atmosphere (during repair works)	For subsidiary companies transmitting natural gas
Reduction of specific nitrogen oxide emissions into the atmosphere	
Reduction of specific consumption of ER for own process needs (in the event of comparable commodity-transport work)	
Reduction of discharge of contaminated and insufficiently treated effluents to surface water bodies	For all subsidiary companies influencing the environment adversely
Reduction of the share of wastes to be buried	
Reduction of payment for above-norm impact as an integral indicator of the adverse environmental impact	

The Complex Environmental Program of OAO Gazprom for the period of 2011–2015 is implemented to preserve favourable environment and balanced environmentally oriented development. The environmental-economic effect from Program implementation for the period of 2011–2015 will make approximately RUB 44.6bn.

Priority measures and investment projects of subsidiary companies for environmental safety provision and resource supply of OAO Gazprom facilities are implemented within the frames of the Program.

In 2013 significant environmental effect was achieved from the following measures:

— implementation of the production gas well string temperature heating technology after long-term down-time and conservation;
— upgrade of GPU combustors;
— improvement of the repair technology for line sections of trunk gas pipelines (TGP) with minimization of outgassing volumes associated with gas bypass and transmission to consumer;
— motor transport transfer to gas engine fuel.

OAO Gazprom system of standardization in the environmental protection sphere

Gazprom develops and improves the system of standardization in terms of corporate standards in the environmental protection sphere. Starting from 2012 there is a separate complex in the OAO Gazprom system of standardization “Regulatory Documents in the Environmental Protection Sphere”, providing for development of corporate standards on EMS groups of processes. Standardization targets in the environmental protection sphere of OAO Gazprom include:

— processes / subprocesses of environmental activity;
— process operations of main and auxiliary types of production activity with account of safety provision for the environment;
— methods / methodologies used for design, tests and for implementation of nature-protecting measures;
— EMS documentation;
— environmental protection requirements included in accordance with the procedure established by the legislation in regulatory-methodological documents of other complexes of the OAO Gazprom standardization system.

In 2013 five new regulatory documents defining corporate requirements in the environmental protection sphere were identified in the OAO Gazprom standardization system:

— STO Gazprom 12-0-001-2013 “Regulatory Documents in the Environmental Protection Sphere. Main Provisions”;
— STO Gazprom 12-3-002-2013 “Regulatory Documents in the Environmental Protection Sphere. Design of Production Environmental Monitoring Systems”;

— R Gazprom 12-1-003-2013 “Regulatory Documents in the Environmental Protection Sphere. Methodological Recommendations for Assessment of the Environmental Impact of OAO Gazprom Facilities”;
— R Gazprom 2-1.19-699-2013 “Regulatory Documents for Design, Construction and Operation of OAO Gazprom Facilities. Methods of Evaluation and Prevention of Hazardous Erosion Process Occurrences during Gas Production and Transmission Facilities Construction and Operation on the Yamal Peninsula”;
— R Gazprom 129-2013 “Regularities in Formation of the Yamal Peninsula River Runoff and Methods of Calculation of its Main Characteristics Taking into Account the Regional Specifics of Areas”.

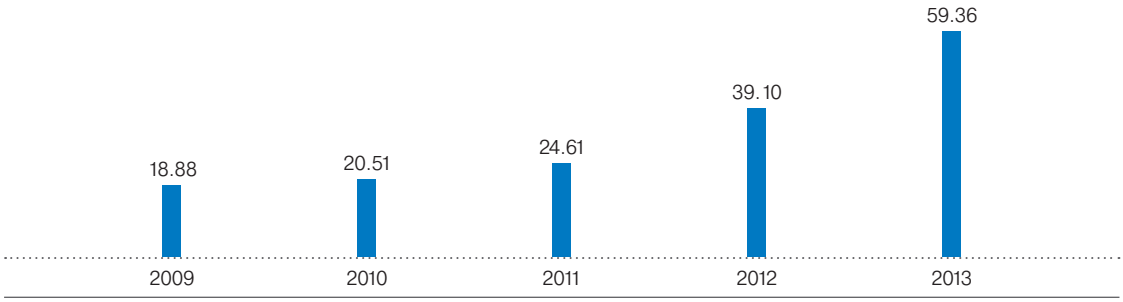
The following regulatory documents are brought into effect in the energy saving and energy efficiency sphere:

— R Gazprom 2-1.20-728-2013 “Methodological Instructions for Development of the Program of Energy Saving and Energy Efficiency Improvement for a Subsidiary Company and Organization”;
— R Gazprom 2-1.20-729-2013 “Energy Passports of a Subsidiary Company”;
— R Gazprom 2-1.20-742-2013 “Methodology for Determination of the Process Facilities Energy Saving Potential”.

Environmental protection financing

Stable growth of general environmental protection financial costs and investments of the *Gazprom Group* has been observed recently. In 2013 these costs made RUB 59.36bn, including 55.96% falling on OAO Gazprom.

Dynamics of environmental protection costs of *Gazprom Group*, 2009–2013, RUB bn



Investments to the main capital aimed at environmental protection and rational use of natural resources grew in the *Gazprom Group* by 93.6% as of 2012 and made RUB 24.95bn.

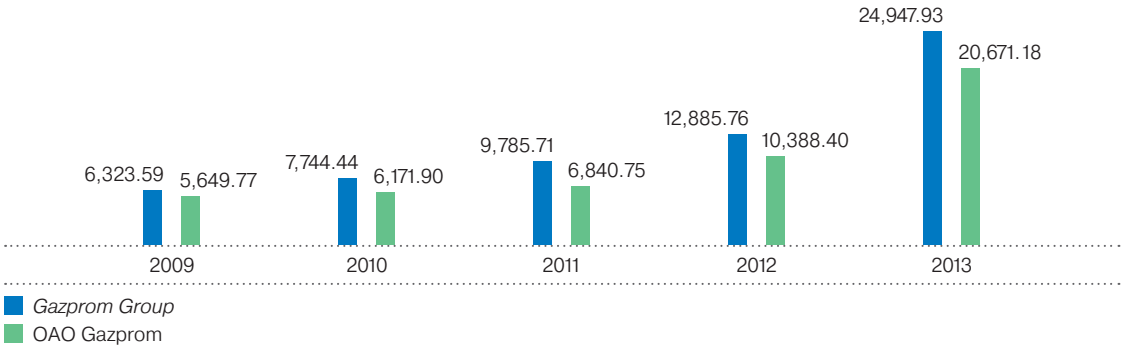
Investments to main capital aimed at environmental protection and rational use of natural resources, 2009–2013, RUB mm

	2009	2010	2011	2012	2013
Gazprom Group	**6,323.59**	**7,744.44**	**9,785.71**	**12,885.76**	**24,947.93**
Gas complex companies	5,945.28	6,476.24	6,872.66	10,416.56	20,760.53
Including OAO Gazprom	5,649.77	6,171.90	6,840.75	10,388.40	20,671.18
Gazprom neft Group	172.00	14.60	891.95	1,210.09	1,115.51
Gazprom neftekhim Salavat	–	–	–	612.30	2,909.63
Gazprom Energoholding	206.31	1,253.60	2,021.10	646.81	162.26

* The data of OAO Gazprom neftekhim Salavat is taken into account in the *Gazprom Group* statistics starting from 2012.

Increase of the investments of the *Group* gas complex by more than 2 times as compared with 2012 was associated with allocation by OAO Gazprom of funds equal to RUB 13.84bn for implementation of environmental measures within the frames of the Program for the Construction of Olympic Venues and the Development of the City of Sochi as an Alpine Resort approved by the RF Government Regulation No. 991 dated December 29, 2007.

Dymanics of *Gazprom Group* investments to environmental protection and rational use of natural resources, 2009–2013, RUB mm



In 2013 investments to land production and rational use dominated in the investments structure of OAO Gazprom – RUB 14,859.36mm; RUB 3,745.92mm for water resources protection and rational use; RUB 6,083.63mm for atmospheric air protection; remaining RUB 259mm were spent for protection and rational use of land resources, protection and reproduction of fish reserves, protection of wild animals and birds, creation of enterprises and polygons for utilization, neutralization and burial of toxic production, household and other wastes.

Structure of investments to environmental protection and rational use of natural resources, OAO Gazprom, 2013, %

Protection and rational use of lands	70%
Protection and rational use of water resources	15%
Air protection	14%
Other spheres	1%

In 2013 the total current costs for environmental protection of the *Gazprom Group* grew by 28% as compared to 2012 as the result of increase of costs for capital repair of main production assets in the sphere of environmental protection in the *Gazprom neft Group* and costs for payment of environmental services in OAO Gazprom.

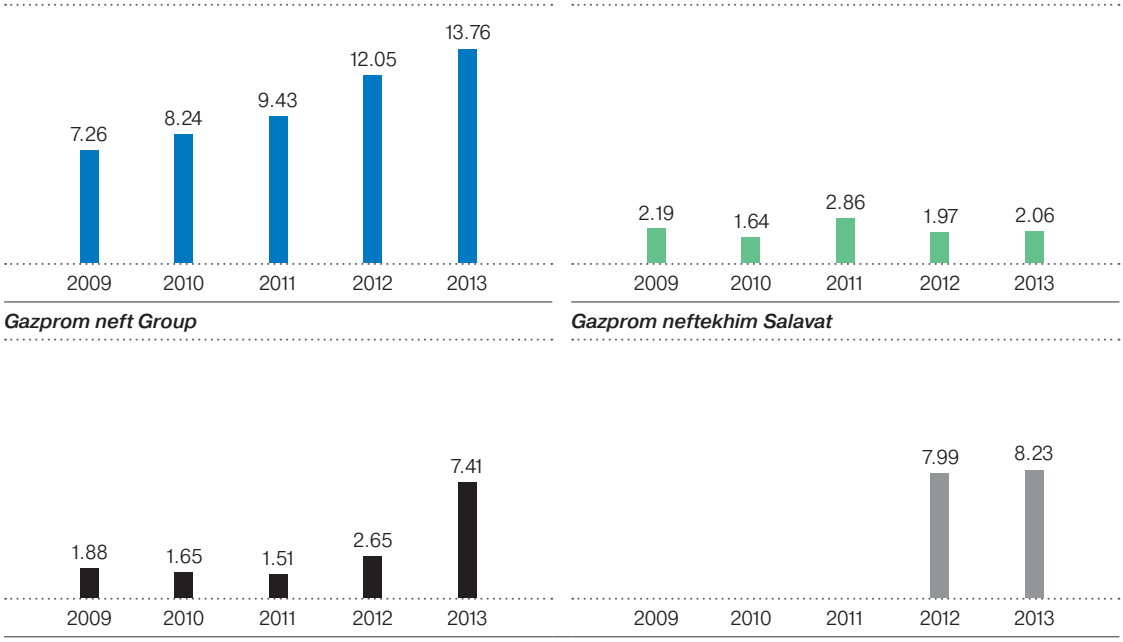
Current costs for environmental protection (total), 2009–2013, RUB mm

	2009	2010	2011	2012	2013
Gazprom Group	**11,339.15**	**11,533.06**	**13,804.47**	**24,648.80**	**31,456.47**
Gas complex companies	7,262.44	8,244.82	9,434.10	12,047.14	13,758.91
Including OAO Gazprom	6,870.12	7,645.59	8,806.60	10,938.75	11,957.75
*Gazprom neftekhim Salavat**	–	–	–	7,987.28	8,225.46
Gazprom neft Group	1,882.99	1,649.00	1,514.24	2,647.73	7,413.42
Gazprom Energoholding	2,193.72	1,639.24	2,856.13	1,966.64	2,058.68
including current (operational) expenditures for environmental protection					
Gazprom Group	**10,376.47**	**10,289.84**	**11,232.71**	**18,354.68**	**20,328.15**
Gas complex companies	6,524.02	7,150.84	8,021.27	7,034.19	8,224.347
Including OAO Gazprom	6,141.97	6,577.51	7,411.36	6,517.20	7,161.35
*Gazprom neftekhim Salavat**	–	–	–	7,461.74	7,724.85
Gazprom neft Group	1,838.67	1,649.00	1,514.24	2,605.06	3,953.91
Gazprom Energoholding	2,013.78	1,490.00	1,697.20	1,253.69	425.045
including current costs for nature conservation services					
Gazprom Group				**3,849.51**	**8,021.87**
Gas complex companies				3,100.07	4,008.72
Including OAO Gazprom				2,516.47	3,273.98
*Gazprom neftekhim Salavat**				313.44	384.18
Gazprom neft Group					2,208.34
Gazprom Energoholding				436.00	1,420.62

including current costs for capital repair of main production assets (environmental protection aspects)					
Gazprom Group	**962.68**	**1,243.22**	**2,571.76**	**2,444.61**	**3,106.45**
Gas complex companies	738.40	1,093.98	1,412.83	1,912.89	1,525.84
Including OAO Gazprom	728.15	1,068.08	1,395.24	1,905.08	1,522.42
*Gazprom neftekhim Salavat**	–	–	–	212.10	116.42
Gazprom neft Group	44.32	–	–	42.67	1,251.17
Gazprom Energoholding	179.94	149.24	1,158.93	276.95	213.016

* The data of OAO Gazprom neftekhim Salavat is taken into account in the *Gazprom Group* statistics starting from 2012.

Dynamics of current costs for environmental protection in *Gazprom Group*, 2009–2013, RUB bn



In the *Gazprom Group* current costs structure the costs for waste water collection and treatment predominate, which in 2013 made RUB 16.78bn. RUB 4.86bn were spent for atmospheric air protection; RUB 4.14bn were spent for prevention of environmental contamination with production wastes; RUB 4.45bn were spent for protection of lands, surface and underground waters; and RUB 1.23bn were spent for other environmental protection issues (preservation of biodiversity and protection of natural areas, protection from physical impact factors, provision of radiation safety, scientific research activity and research works for mitigation of adverse anthropogenic impacts).

Structure of current costs of *Gazprom Group* for environmental protection, 2013, %

For effluents collection and treatment	53%
For atmospheric air protection and prevention of climate change	16%
For protection and reclamation of lands, surface and underground waters	14%
For waste management	13%
For other activity areas in the environmental protection sphere	4%

Payment for adverse environmental impact

RUB 2,952.5mm were transferred by the *Gazprom Group* to budgets of different levels as payment for the adverse environmental impact in 2013, which is more than in 2012 by RUB 1,389.38mm.

Payment for adverse environmental impact, 2009–2013, RUB mm

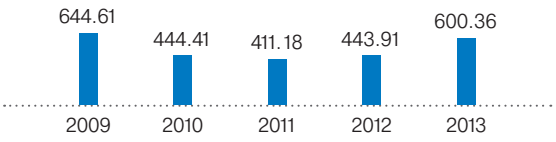
	2009	2010	2011	2012	2013
Gazprom Group	**1,218.41**	**1,234.38**	**1,017.24**	**1,563.12**	**2,952.50**
Gas complex companies	644.61	444.41	411.18	443.914	600.36
Including OAO Gazprom	616.22	426.92	391.86	400.35	584.61
Gazprom neft Group	137.95	201.40	133.39	822.23	1,927.46
Gazprom neftekhim Salavat	–	–	–	4.28	21.53
Gazprom Energoholding	435.85	588.57	472.67	292.70	403.16

* The data of OAO Gazprom neftekhim Salavat is taken into account in the *Gazprom Group* statistics starting from 2012.

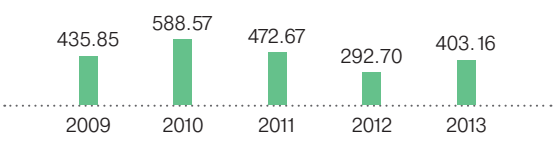
In recent two years significant increase of the sum of payment for adverse environmental impact was noted in the *Group*, which is associated with growth of this indicator in the *Gazprom neft Group*. This was preconditioned by the use of multipliers to established payment norms for calculation of payment for polluting emissions due to putting into force in 2012 the Russian Federation Regulation No. 7 dated January 08, 2009 “On Measures for Stimulation of Reduction of Atmospheric Air Contamination with Products of Associated Petroleum Gas Combustion on Flares”. In 2013 payments for adverse impact on the air grew by 2.2 times more despite the fact that the volume of polluting emissions was reduced. This is associated with bringing into force since January 01, 2013, of the Russian Federation Government Regulation No. 1148 dated November 08, 2012 “On Peculiar Features of Calculation of Payment for Polluting Emissions during Combustion on Flares and (or) Dispersion of Associated Petroleum Gas. According to this Regulation, the target indicator of associated gas (APG) combustion is established equal to 5%, and the whole AG volume liquefied above the target indicator is considered to be an above-limit emission, which an additional coefficient 12 is applied to.

Dynamics of payment for adverse environmental impact in the *Gazprom Group* companies section, 2009–2013, RUB mm

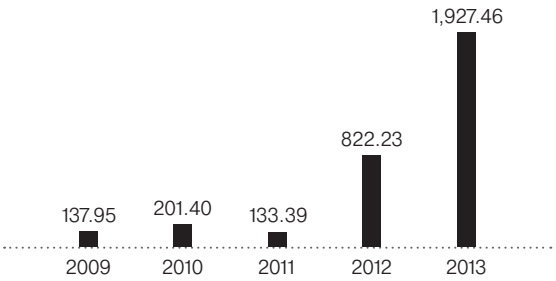
Gas complex companies



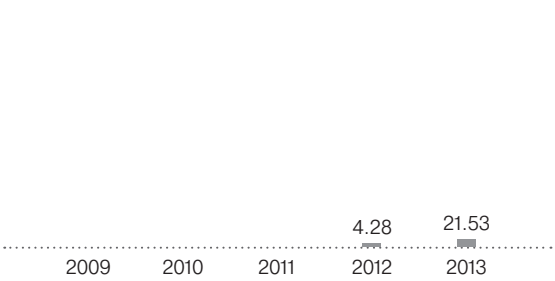
Gazprom Energoholding



Gazprom neft Group

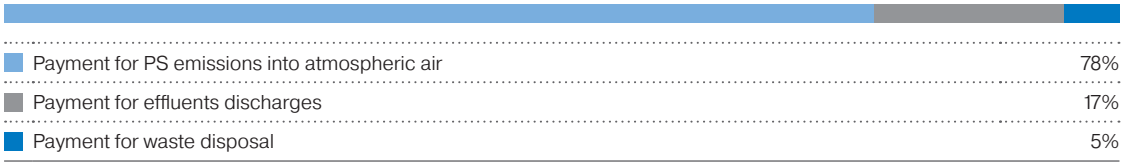


Gazprom neftekhim Salavat

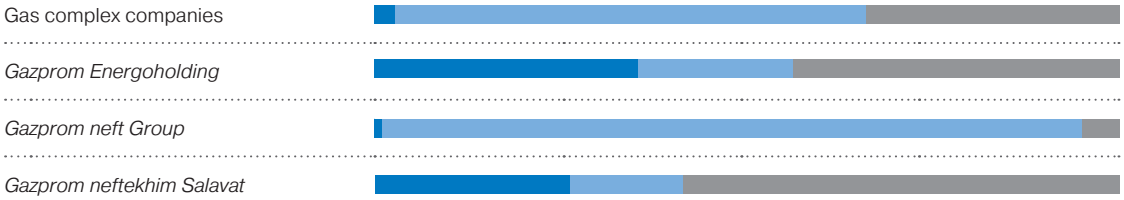


Payments for polluting emissions predominate in the structure of payment for adverse environmental impact in the *Gazprom Group* in 2013.

Structure of environmental payments of *Gazprom Group* by types of adverse environmental impact, 2013, %



Distribution of payment by environmental impact areas, *Gazprom Group*, 2013, RUB mm

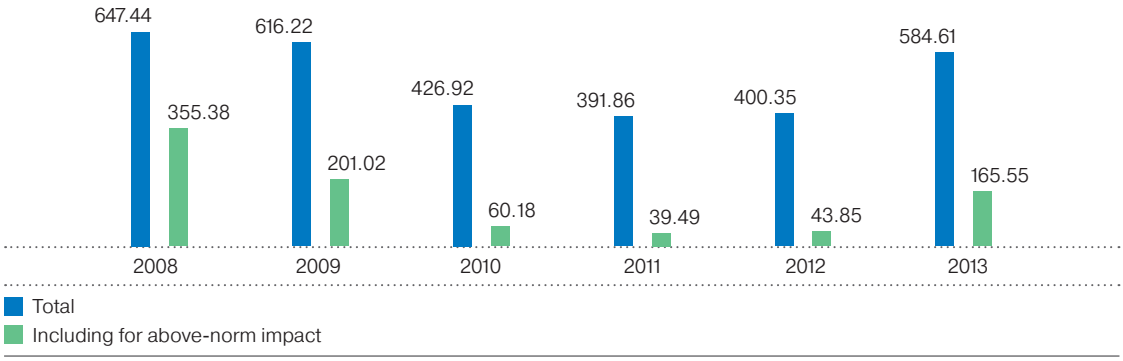


	Gas complex companies	*Gazprom Energoholding*	*Gazprom neft Group*	*Gazprom neftekhim Salavat*
For effluents discharge to water bodies	16.80	142.55	0.83	5.66
For emissions into atmospheric air	378.65	83.88	1,828.66	3.26
For waste disposal	204.92	176.73	97.97	12.61

After the corporate environmental objective of OAO Gazprom for reduction of payment for above-norm environmental impact was established in 2008–2013, subsidiary companies with 100% participation of OAO Gazprom successively worked on reduction of this efficiency indicator and responsibility of work of environmental services in enterprises.

In 2013 the increase of the sum of above-norm payments for adverse environmental impact in Petroleum was associated with undue reception of environmental permits from territorial bodies of the Federal Service for Supervision of Natural Resource Usage for drilling waste disposal in OOO Gazprom dobycha Yamburg.

Payment for adverse environmental impact in subsidiary companies of OAO Gazprom, 2008–2013, RUB mm

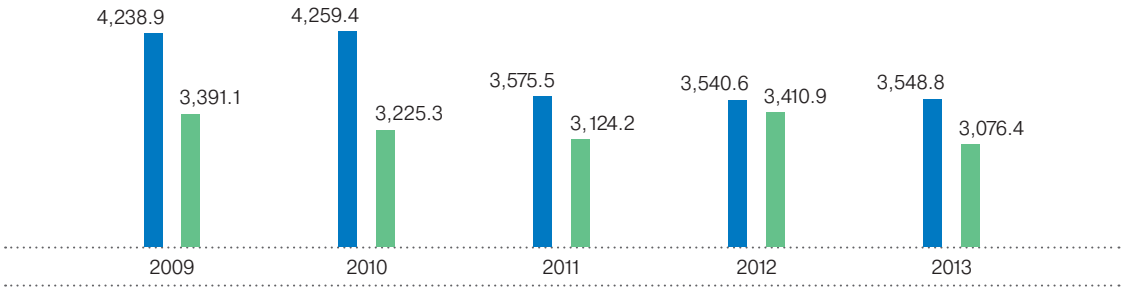


Environmental performance and energy saving

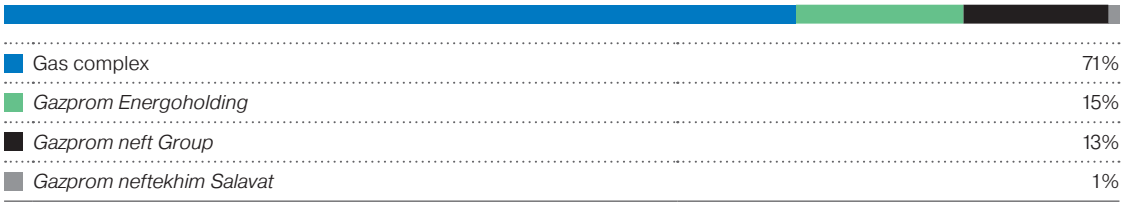
Air protection

In 2013 total polluting emissions into atmosphere from stationary sources of the *Gazprom Group* enterprises in relation to the previous year fell by 9.8% and made 3,076.4 kt. During the reported year 3,548.8 kt of pollutants were caught and neutralized at exhaust gas treatment units, including 94% of solid substances, mainly solid fuel ash formed at *Gazprom Energoholding* facilities.

Dynamics of gross emissions and prevention of emissions into atmospheric air in *Gazprom Group*, 2009–2013, kt

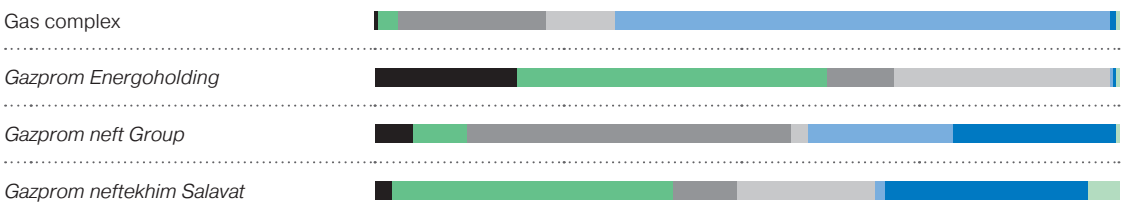


Share of *Gazprom Group* companies in formation of the volume of total emissions into atmosphere, %



Polluting emissions of the gas complex predominate in the *Gazprom Group*; in 2013 they made 2,187.2 kt, including more than 98% formed at OAO Gazprom facilities.

Component structure of atmospheric emissions in *Gazprom Group*, t, %



	Gas complex	*Gazprom Energoholding*	*Gazprom neft Group*	*Gazprom neftekhim Salavat*
Solid substances	3,601.25	85,806.46	20,870.32	689.17
Sulphur dioxide	67,320.41	187,874.86	30,174.88	11,522.96
Carbon oxide	433,420.91	40,259.19	177,102.17	2,631.73
Nitrogen oxides	202,479.75	135,303.35	9,510.85	5,609.14
Hydrocarbons	1,454,263.91	8.10	79,300.03	429.96
VOC	25,163.44	235.19	90,815.39	8,253.96
Other PS	887.12	1,012.17	483.75	1,299.84

The main pollutants for the *Group* include hydrocarbons (mainly methane), carbon oxide, nitrogen oxides, sulphur dioxide, which 92.2% of total emissions fall for.

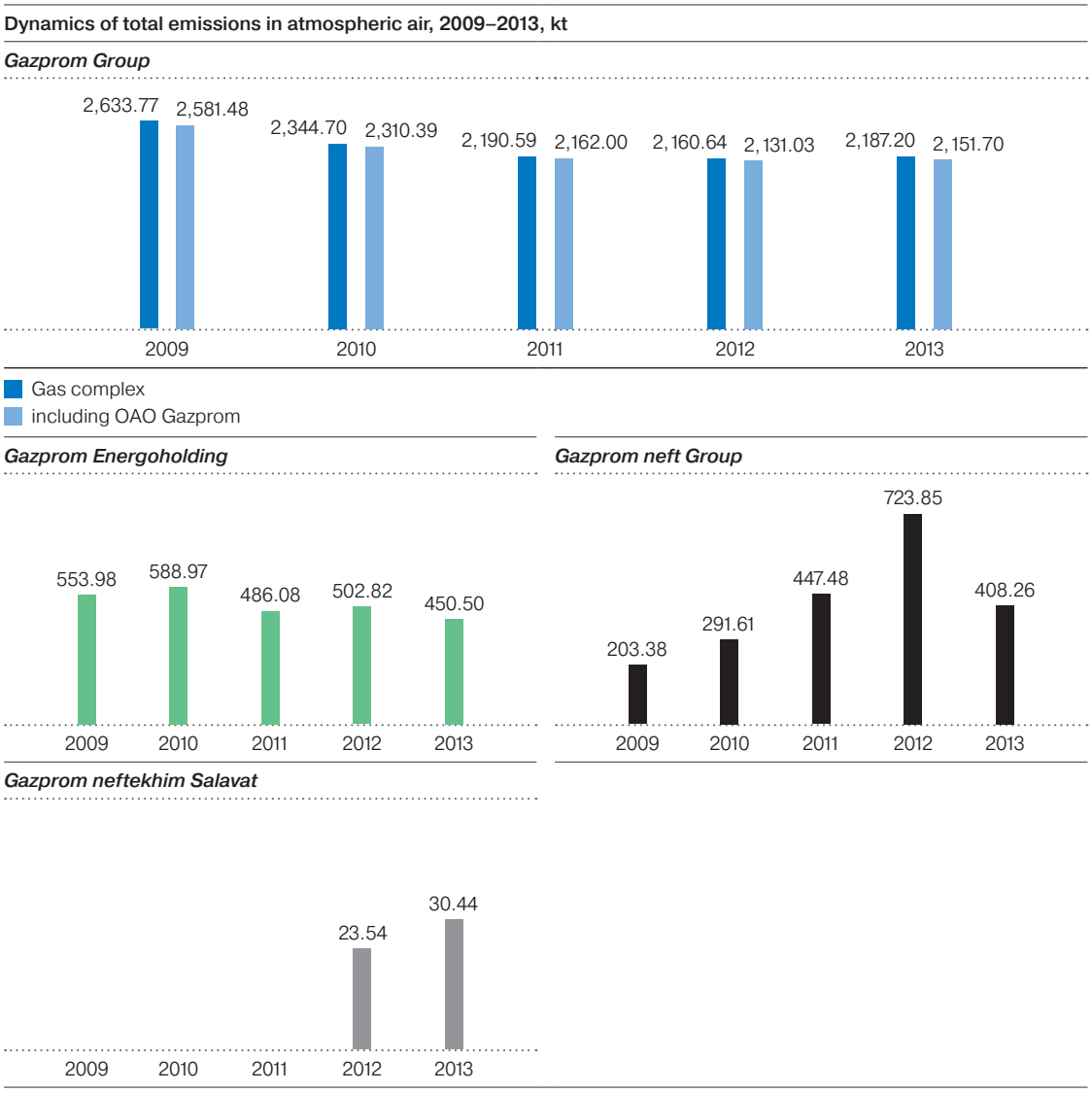
Hydrocarbons (methane) in the total emissions structure of the *Group* are presented by 94.3% by emissions of subsidiary companies of OAO Gazprom involved in production, transmission, underground storage and processing of natural gas and gas condensate.

Emissions of solid substances are typical for the energy segment of *Gazprom* (77.3% of corresponding volumes in the *Group*), and emissions of volatile organic compounds (VOC) – for the oil production and processing segment (about 72.9%).

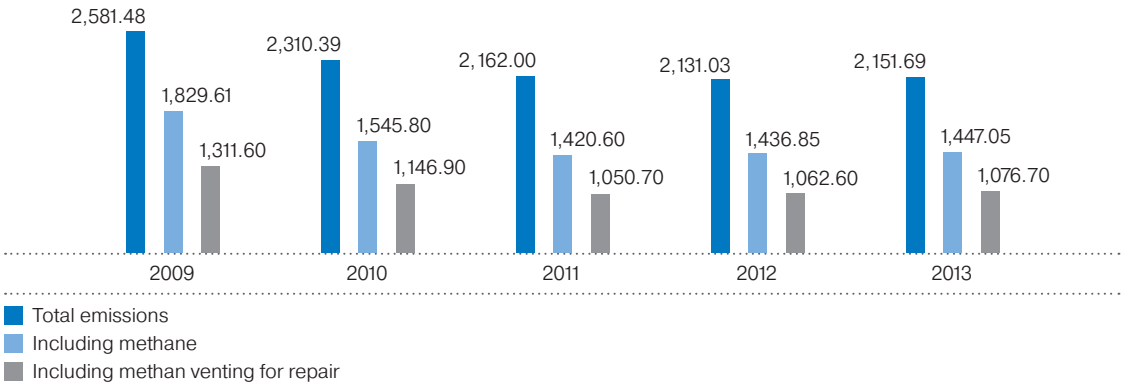
Implementation of the complex of management, technical and process measures in *Gazprom neft Group* had a defining impact on the dynamics of total emissions of the *Gazprom Group* in 2013. Flare systems were upgraded and APG flaring was reduced; motor fuel stations were reconstructed and equipped with modern process equipment. These and other measures allowed to reduce harmful emissions by 315.6 kt.

Reduction of the volumes of total emissions from stationary facilities of *Gazprom Energoholding* by 10.4% occurred due to reduction of fuel combustion as the result of reduction of electric energy production.

Dynamics of total emissions in atmospheric air, 2009–2013, kt



Dynamics of polluting emissions in atmospheric air from OAO Gazprom stationary sources, 2009–2013, kt

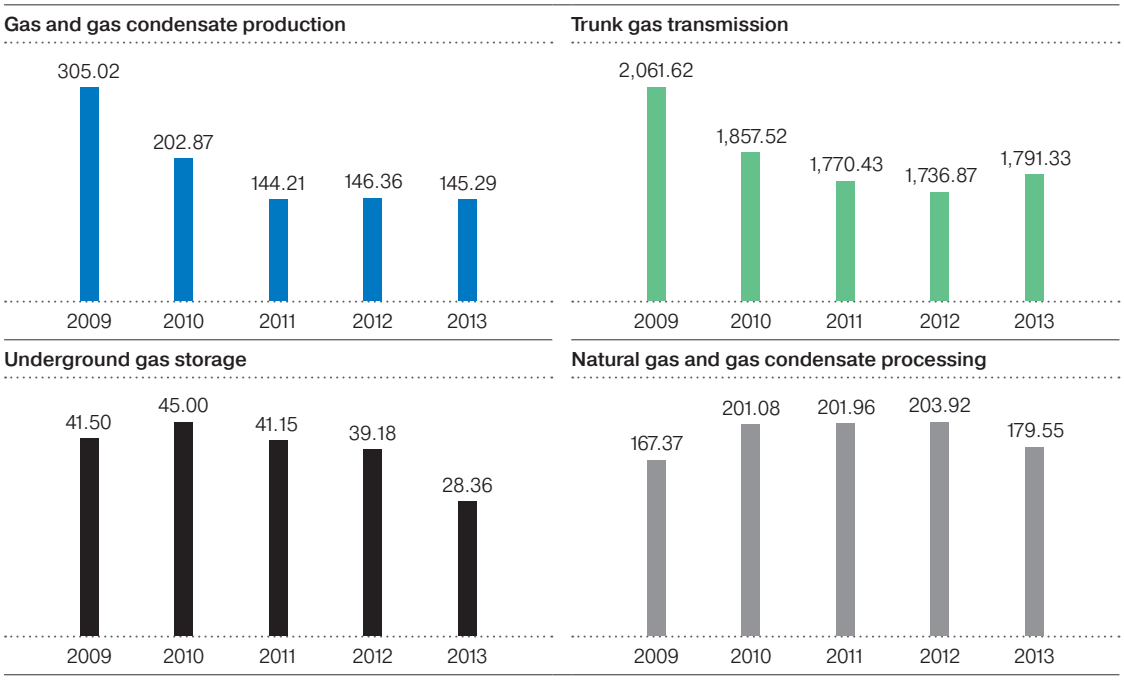


Insignificant increase of total emissions in the gas complex in relation to 2012 was associated mainly with increase of methane emissions in the trunk gas transmission segment of OAO Gazprom. This was preconditioned by increase of the commodity-transport work by 4% and routine maintenance of gas transmission facilities. Reduction of emissions from natural gas and gas condensate refinery facilities by 24 kt, UGS – by 10.6 kt, and production – by 1 kt was simultaneously observed.

In general, starting from 2009 total emissions from OAO Gazprom stationary sources fell in total by 430 kt, including methane – by 382.56 kt by means of use of technologies with no gas emissions in atmospheric air for repairs of TGP and wells, and commissioning of two compressor stations (CS) working on APG in OOO Gazprom dobycha Urengoy.

In 2009–2013 OAO Gazprom reduced total emissions by 17% and methane emissions – by 21%.

Dynamics of total emissions in atmospheric air in OAO Gazprom by activity types, 2009–2013, kt



Greenhouse gas emissions

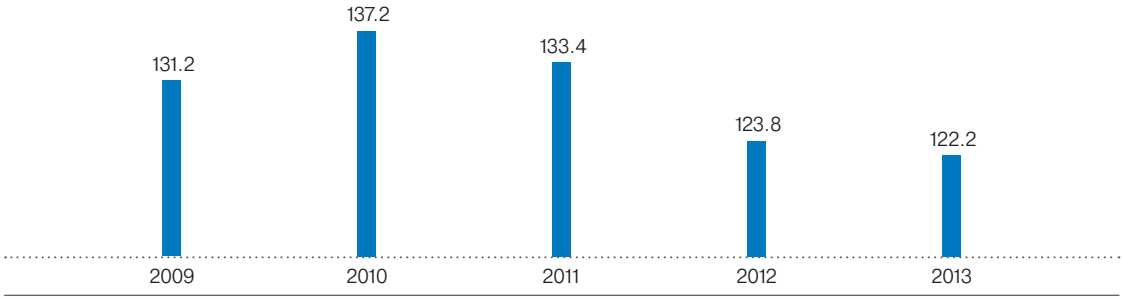
OAO Gazprom initiatives and activities in the climate protection sphere are fulfilled with account of the provisions of the Russia's Energy Strategy for the period till 2030, the State Program of the Russian Federation "Environmental Protection" for 2012–2020 and the Climatic Policy of the Russian Federation.

OAO Gazprom fulfills measures for improvement of energy efficiency and saving of energy resources, optimizes production activity, develops cooperation and forms partners' relations, aspires to attract new investments in the development of innovation technologies and improvement of process solutions. This ensures reduction of greenhouse gas emissions and the possibility of achieving the target indicator of the Russian Federation on reduction of national greenhouse gas emissions by 15–25% by 2020 as compared to the level of 1990.

The OAO Gazprom greenhouse gas inventory system corresponds to national and international standards and requirements in full.

In 2013 greenhouse gas emissions at OAO Gazprom facilities made 122.2mmt CO_2-equivalent, which is 1.6mmt less than in 2012. Emissions were reduced as the result of reduction of gas consumption for own process needs, improvement of FER use efficiency, implementation of measures of the OAO Gazprom Program of Energy Saving and Energy Efficiency Improvement for 2011–2013.

Greenhouse gas emissions from OAO Gazprom facilities, 2009–2013, mmt of CO_2-equivalent



Annually OAO Gazprom submits results of quantitative assessment of annual greenhouse gas emissions to the Federal Service for Hydrometeorology and Environmental Monitoring for preparation of the Russian Federation Cadastre of Greenhouse Gas Emissions in compliance with the requirements of the UN Framework Convention on Climate Change and the Russian legislation. In 2013 OAO Gazprom prepared materials for the 6th National Communication of the Russian Federation on Greenhouse Gas Emissions.

According to the CDP questionnaire results, OAO Gazprom had the best result amidst Russian oil and gas companies in 2011–2013.

Since 2009 OAO Gazprom has participated in the international investment partnership Carbon Disclosure Project (CDP). In the questionnaire of 2013 OAO Gazprom additionally provided data on indirect greenhouse gas emissions.

CDP, Carbon Disclosure Project is the partnership of more than 500 international financing organizations managing funds more than USD 60tn. CDP keeps the largest international database on greenhouse gas emissions used for taking of investment decisions.

OAO Gazprom significantly improved its indicators in the CDP rating for the Energy sector – by 18 points in relation to 2009. According to the questionnaire results, CDP of OAO Gazprom had the best result amidst Russian oil and gas companies in 2011–2013.

The system of accounting and inventory of greenhouse gases is implemented in subsidiary companies of the *Gazprom Group* as well. For example, all power stations of OAO Mosenergo annually calculate gross emissions of carbon dioxide and other greenhouse gases in atmosphere within the frames of corporate reporting starting from 2001 (RD 153-34.0-02.318-2001 “Methodological Instructions for Calculation of Greenhouse Gas Emissions in Atmosphere from Heat Stations and Boilers” dated December 20, 2007).

Associated petroleum gas use

Gazprom activity for reduction (termination) of APG flaring has a great value for reduction of greenhouse gas emissions and resources saving.

APG flaring is an acute problem of the oil and gas sector in the conditions of general world tendencies for economy transfer to the low-carbon and energy efficient way of development and due to the reasons of economic, environmental and social risks and losses.

Implementation of investment projects for APG use at *Gazprom Group* fields is aimed at achievement of the APG use level at least 95%.

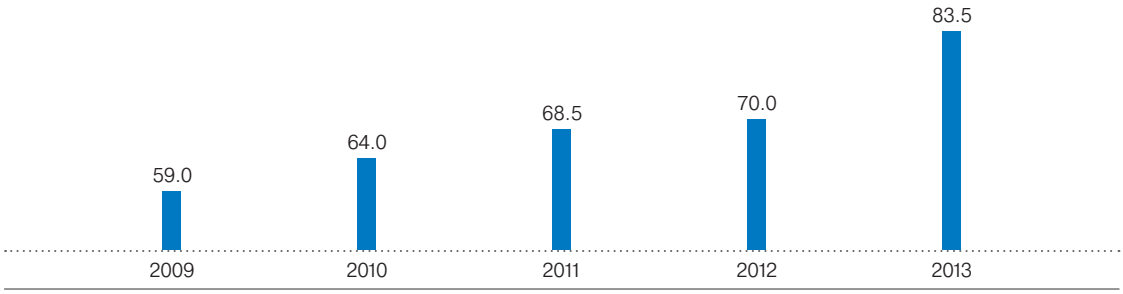
In 2013 the level of APG use in the *Gazprom Group* made approximately 83.5%. The level of APG use 95–100% was achieved in subsidiary companies of OAO Gazprom.

Indicators of production and utilization of associated petroleum gas, *Gazprom Group*,2013

	APG produced, mmcm	Used, %
OAO Gazprom	**783.68**	**99.5**
OOO Gazprom dobycha Krasnodar	73.38	95
OOO Gazprom dobycha Orenburg	26.69	100
OOO Gazprom dobycha Urengoy	683.61	99.5
Vostokgazprom Group	643.68	81
Gazprom neft Group	6,779.18	79.5
Sakhalin Energy	1,189.67	97
Gazprom Group, total	9,396.21	83.5

Vacuum compressor stations were built and commissioned by *Gazprom neft Group* at the Vyngapurovskoye and the Vyngayakhinskoye fields of OAO Gazpromneft-Noyabrskneftegaz and its branch Gazpromneft-Muravlenko for improvement of the level of APG and reduction of polluting emissions during its flaring. The level of APG disposal, taking into account facilities commissioning, made 79.5% by the end of 2013. They plan to achieve the maximum level of associated gas use at *Gazprom neft Group* facilities by 2016.

Level of APG use at *Gazprom Group* fields, 2009–2013, %



Gazprom demonstrates stable dynamics of reduction of APG flaring in fields. The use of APG increased by 24% in 2009–2013.

Reduction of air impact of transport

The activity of the *Gazprom Group* contributes greatly to the Russia's motor transport complex greening by means of production of gas motor engine, construction of gas feeling stations and production of gasoline and diesel fuel corresponding to international standards Euro-3 – Euro-5.

As the result of large-scale upgrade all *Gazprom neft* plants were transferred to production of fuels of the 5th environmental class with extra-low sulphur content starting from 2013, with significant advance of the terms established by the Russian Federation Government. Implementation of projects for oil refinery level improvement will be the next upgrade stage.

Gazprom actively works on development of the gas motor segment in Russia, transfer of different motor machinery types to natural gas and is an absolute leader in the national gas motor market. In this sphere *Gazprom* cooperates with gas filling equipment suppliers, with state and municipal control bodies, economic and scientific centers, international organizations and foreign partners, and forms new infrastructure facilities in different regions of the country. This work will be performed in the context of fulfillment of Federal Law No. 261-FZ dated November 23, 2009 "On Energy Saving and on Improvement of Energy Efficiency and Introduction of Changes to Independent Legislative Acts of the Russian Federation", as well as Order No. Pr-1923 of the President of Russia dated June 27, 2011.

A specialized company – OOO Gazprom gazomotornoye toplivo was formed for implementation of the Concept of long-term socio-economic development of the Russian Federation till 2020 for the priority area of development of the oil and gas complex in terms of stimulation of natural gas use as motor fuel on December 06, 2012. This company is aimed at consolidation of gas motor assets of the *Gazprom Group* as well as other financial, human and other resources.

In 2012 OAO Gazprom submitted a proposal to he Russian Federation entities on participation in development of the gas motor fuel market and infrastructure; 54 regions expressed readiness to cooperate in this area. In 2013 a number of agreements were signed on extension of use of gas motor fuel with regions of the Russian Federation (Moscow, Saint Petersburg, Krasnodar Krai,

the Tatarstan Republic, Yamal Nenets Autonomous Okrug, Khanty-Mansi Autonomous Okrug – Yugra, Vladimir, Kursk, Leningrad, Novgorod, Omsk, Orenburg, Rostov, Sverdlovsk and Tomsk Oblasts). Ten regions were chosen for implementation of pilot projects (Moscow and Moscow Region, Saint Petersburg, the Tatarstan Republic, Volgograd, Yekaterinburg, Krasnodar, Nizhny Novgorod, Rostov-on-Don, Tomsk).

In 2011–2013 the Russian regions developed gas supply and gasifying development programs till 2015 and 2016. A meeting on the issues of interaction of *Gazprom* and the Russian regional authorities was held in 2013 for attraction of increased attention of Russian regional governors to expansion of regional gas motor fuel markets. Leading representatives of Ministry of Energy and Ministry of Agriculture of the Russian Federation as well as representatives of regional authorities took part in the meeting.

The successful experience of gas motor transport usage was received in the Tatarstan Republic during the World Summer Universiade in 2013. 130 NEFAZ buses running on methane were used to serve the games between June 25 and July 20. The buses worked on average 16 hours a day and provided 25 thousand services. The summerized distance of all the methane driven buses during the Universiade made about 350,000 km, which required 180 thousand cm of compressed natural gas (CNG) for the bus fueling.

By the end of the Universiade buses are successfully used for passenger transportation. In total 262 buses on methane were bought in 2013 within the frames of the gas motor fuel market development program in the Tatarstan Republic.

Memorandums and cooperation agreements were signed with a number of major manufacturers and distributors of different vehicle (motor, special, railway etc.) operating on gas motor fuel: OAO KAMAZ , OOO VOLGOBUS, OOO MAN Truck and Bus RUS, OOO IvekoRussia, OOO STORK, OAO BELAZ, ZAO Volvo Vostok, OOO Test Machine Plant, OOO IVEKO-AMT, OOO KKU Concern Tractor Plants, OOO Liebherr-Russland, OOO Scania-Rus, Caterpillar, Komatsu Ltd., ZAO Group Sinara, OAO AVTOVAZ, OOO Managing Company Group GAZ and OAO Kirov plant.

A Roadmap was signed between OAO Gazprom and ZAO REP Holding on implementation of long-term cooperation programs. The joint work is aimed at production of ready-to-operate packaged automobile gas filling compressor stations.

Memorandums and agreements on cooperation for development and expansion of gas motor fuel use are signed with OAO Russian Railways, Sberbank of Russia, ZAO Sberbank Leasing, Gazprombank, and the Ministry of Agriculture of the Russian Federation.

Under the signed framework agreements natural gas filling units will be deployed at the fuel filling stations of Gazprom neft and OAO Gazprom gazenergoset.

Annual motor rally “Blue Corridor” continued. In 2013 the company E.ON (Germany), OOO Gazprom export and OOO Gazprom gazomotornoye toplivo became organizers of the event, supported by the International Gas Union. More than 20 Russian and European energy, automobile and transport companies joined the rally. Factory-made automobiles using natural gas – methane as motor fuel took part in the motor rally. The transport train consisted of 8 domestic and foreign buses, freight and passenger vehicles.

The participants drove more than 4,000 km during 15 days. The participants of the “Blue Corridor” used a ferry for the first time for transportation from Finland to Sweden. This ferry uses liquefied natural gas (LNG) in addition to traditional fuel. This is a clear example of reduction of not only financial costs but also harmful emissions of ship engines which did great harm to the Baltic Sea during many years.

Ecological properties and cost effectiveness are the main advantages of gas motor fuel. There are 4-5 times less harmful substances in exhaust gases of a vehicle using CNG as compared to exhaust gases of a vehicle with a gasoline engine. Gas does not form deposits in the fuel system, that’s why the life cycle of the engine running on CNG is 1.5 times as long. When CNG is used, the economy of fuel costs reaches 40%.

OAO Gazprom plans to develop the gas motor fuel market not only in the Russian Federation but abroad as well. Confirming that, OAO Gazprom and Petrovietnam Gas (Vietnam) signed an Agreement on Formation of a joint venture for Gas Motor Fuel Production – PVGazprom Natural Gas for Vehicles (PVGAZPROM NGV). The share of Petrovietnam Gas in the PVGAZPROM NGV registered capital will make 50%. Gazprom will represent with equal shares

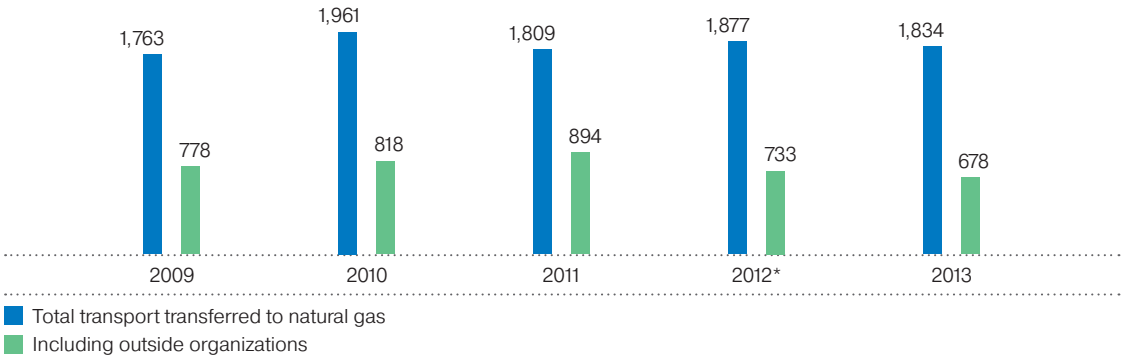
of 25% OOO Gazprom gazomotornoye toplivo and OOO Gazprom International (100% subsidiary company of *Gazprom* – a single specialized company for implementation of oil and gas projects in the sphere of exploration, development and production abroad).

Signing of an Agreement between Gazprom Germania GmbH (subsidiary company of Gazprom export) and Volkswagen AG (Germany) became another confirmation of a high potential of natural gas usage as motor fuel. Under the Agreement, the *Gazprom Group* represented by Gazprom Germania GmbH, starting from May 2013, became an exclusive supplier of gas motor fuel for Volkswagen Motorsport (Germany) participating in a unique series of races (Scirocco R-Cup) on vehicles fueled with natural gas.

In 2013 OAO Gazprom and the Croatian state company LNG Croatia d.o.o. signed a Roadmap on implementation of projects within the Republic of Croatia, aimed at natural gas use as motor fuel.

In 2013, 1,782 transport units were transferred to gas in the *Gazprom Group*, including 98% (1,834 units) by subsidiary companies of OAO Gazprom.

Indicators of motor transport transfer to natural gas in OAO Gazprom, 2009–2013, units per year



* Starting from 2012 including OAO Gazprom transgaz Belarus.

Water use and protection of water resources

In 2013 the *Gazprom Group* companies took (received) 5,130.18mmcm of water for water supply purposes, including 98.2% used for own needs and 1.8% – transferred to other consumers. Water discharge in the *Gazprom Group* in 2013 made 4,440.95mmcm. 13,575.15mmcm were used in recycling and successive water supply system.

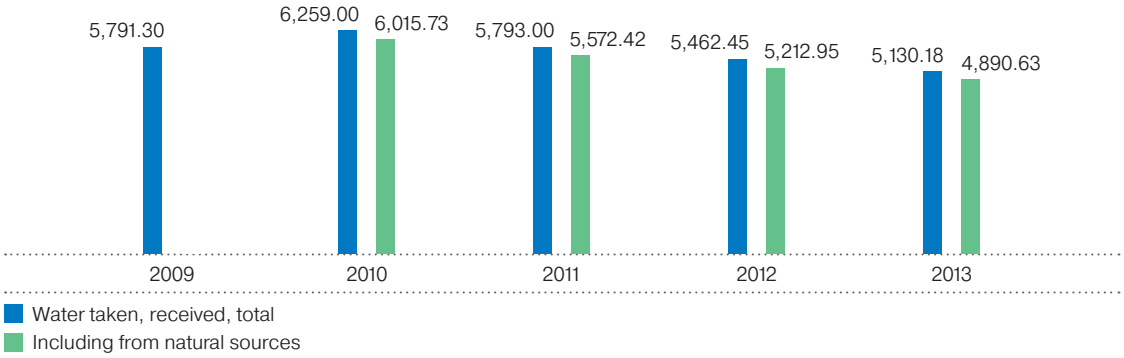
In general, in the *Gazprom Group* in 2013 water consumption fell by 332.27mmcm (6%) as compared to 2012, which is preconditioned by reduction of the demand in cooling water due to reduction of electric energy generation and heat supply in *Gazprom Energoholding* companies.

Energy companies of *Gazprom Energoholding* form 92.3% of water consumption volumes and 94.3% of effluents discharges in the *Gazprom Group*. The share of the *Group* gas complex in total volumes of water consumption makes about 2%, of which 1.3% is the share of OAO Gazprom.

Water use indicators in *Gazprom Group*, 2009–2013, mmcm

	2009	2010	2011	2012	2013
Water taken, received, total	5,791.30	6,259.00	5,793.00	5,462.45	5,130.18
including from natural sources		6,015.73	5,572.42	5,212.95	4,890.63
Used for own needs	5,697.01	6,109.70	5,643.19	5,319.62	5,051.64
including for production needs	5,502.52	5,982.12	5,550.79	5,209.31	4,919.51
Water discharge, total	5,336.30	5,701.00	5,300.65	4,931.17	4,440.90
including into surface water bodies	5,210.07	5,364.05	5,257.71	4,892.96	4,389.91
including clean and treated as per norms	5,031.31	5,321.36	5,096.23	4,691.55	4,227.86

Water intake indicators in *Gazprom Group*, 2009–2013, mmcm

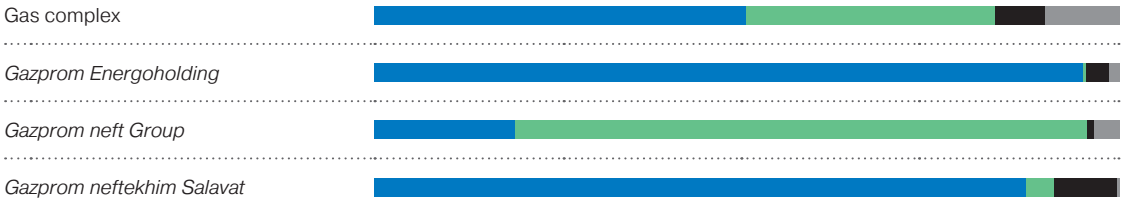


In 2009–2013 the total water intake of the *Gazprom Group* fell by 11% as the result of reduction of water consumption for production needs.

Surface water bodies are the main water supply source (96%) for power stations of *Gazprom Energoholding*.

A high share of usage of underground water sources is typical for companies of the oil and gas complex – 54% in total from the general volume of water taken in these *Group* segments.

Structure of water consumption in *Gazprom Group* by types of sources, 2013, mmcm



	Gas complex	*Gazprom Energoholding*	*Gazprom neft Group*	*Gazprom neftekhim Salavat*
Surface water bodies	48.57	4,582.25	32.87	35.44
Underground horizons	32.56	23.69	133.67	1.57
Municipal water supply systems	6.39	142.35	1.68	3.50
Other water supply systems	9.76	69.95	5.88	0.02

In 2013 discharge of waste water in the *Gazprom Group* into surface water bodies fell due to reduction of water consumption.

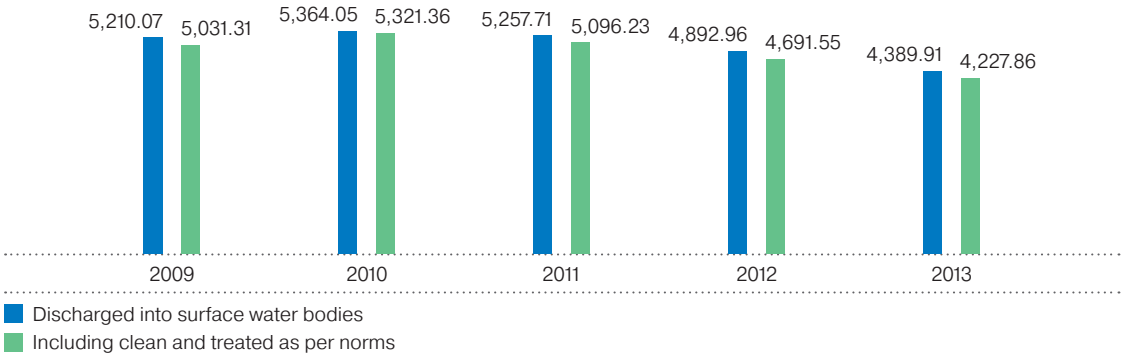
In the total volume of *Group* waste water discharge in surface water bodies the waters clean as per norms without treatment and waste water treated as per norms in treatment facilities made 96%.

Indicators of waste water discharge to surface water bodies in *Gazprom Group*, 2009–2013, mmcm

	2009	2010	2011	2012	2013
Gazprom Group	**5,210.07**	**5,364.05**	**5,257.71**	**4,892.96**	**4,389.91**
Gas complex	40.30	37.73	36.55	36.63	34.00
including OAO Gazprom	14.73	13.08	11.60	10.70	10.38
Gazprom neft Group	0.03	0.06	0.09	0.10	0.08
Gazprom neftekhim Salavat	–	–	–	28.46	48.03
Gazprom Energoholding Group	5,169.74	5,326.26	5,221.07	4,827.77	4,307.80

* The data of OAO Gazprom neftekhim Salavat is taken into account in the *Gazprom Group* statistics starting from 2012.

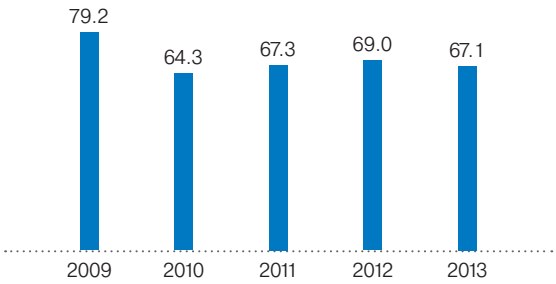
Waste water discharge to surface water bodies in *Gazprom Group*, 2009–2013, mmcm



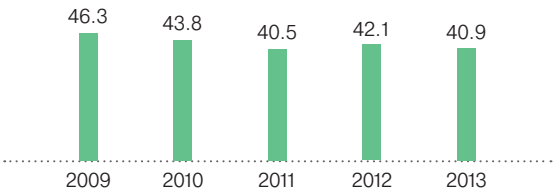
Measures for conservation of water resources and reduction of the level of water bodies contamination were taken in the *Gazprom Group* companies. They included installation of effluents meter stations, inspection of sewage networks, operational tests, current repair of sewage treatment facilities etc.

Water consumption dynamics in OAO Gazprom, mmcm

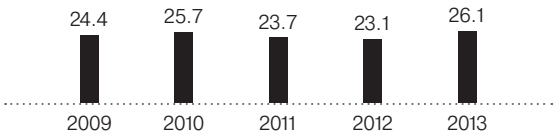
Water intake



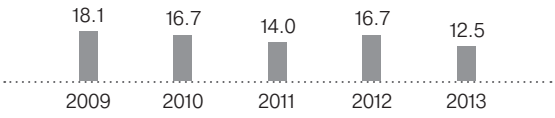
Used for own needs



Including for production needs



Including for household-drinking needs



In OAO Gazprom in 2013 the total water intake (from natural sources and household water supply systems) fell as compared to 2012 by 2mmcm (3%) by means of reduction of water volumes used for own household and drinking needs.

Dynamics of waste water discharge to surface water bodies in OAO Gazprom by activity types, 2009–2013, mmcm

	2009	2010	2011	2012	2013
OAO Gazprom	14.73	13.08	11.60	10.70	10.38
Production	0.55	0.30	0.39	0.30	0.52
Transportation	9.20	7.50	6.73	6.11	5.69
UGS	0.50	0.78	0.34	0.18	0.19
Processing	0.98	1.12	0.87	1.05	0.38
Other (support) activity types	3.48	3.35	3.20	3.05	3.59

In 2009–2013 waste water discharges to surface water bodies from OAO Gazprom facilities fell by 30%.

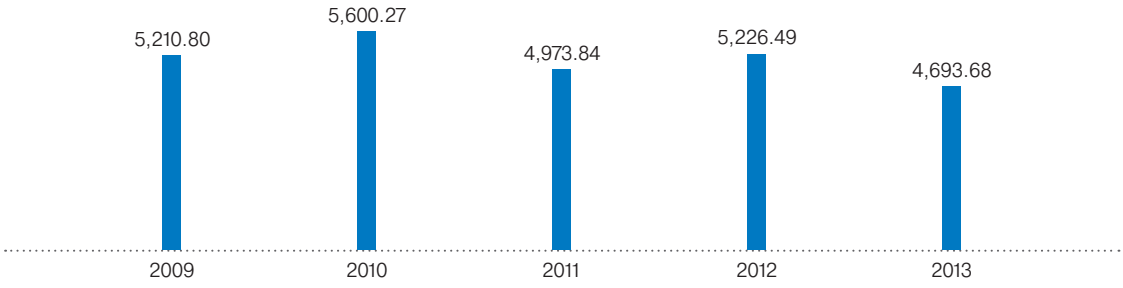
Production and consumption waste management

In 2013, 4,693.68 kt of wastes were formed in *Gazprom Group* companies, which is 532.81 kt (10%) less than in the previous reported year.

Waste generation in the *Gazprom Energoholding* fell by 373.23 kt due to reduction of electric energy generation, and in the *Gazprom neftekhim Salavat* – by 256.55 kt by means of reduction of dismantling volumes.

Some increase of the total volume of wastes formed in the *Gazprom neft Group* and the company Sakhalin energy (gas complex of the *Group*) is observed as the result of expansion of the drilling program. Reduction of waste generation volumes was noted in OAO Gazprom in all main segments of the activity.

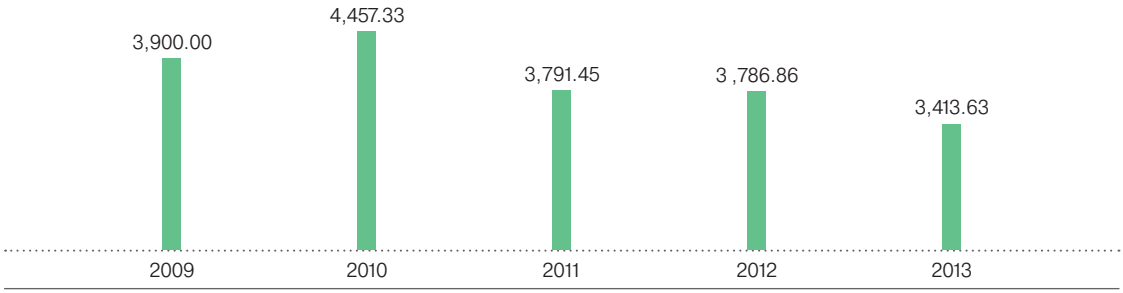
Dymanics of waste generation in *Gazprom Group*, 2009–2013, kt



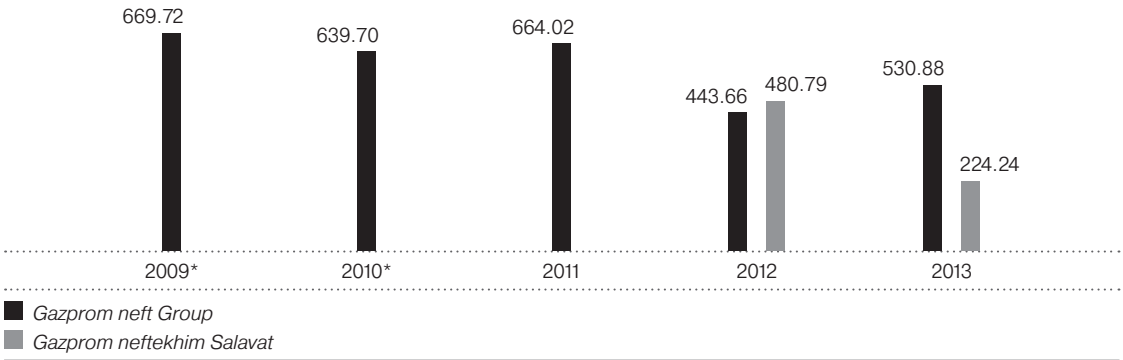
Share of *Gazprom Group* companies in waste generation volumes, 2013, t, %

Gazprom Energoholding	3,413.63	73%
Gazprom neft Group	530.88	11%
Gas complex	524.93	11%
Gazprom neftekhim Salavat	224.24	5%

Dymanics of waste generation in *Gazprom Energoholding*, 2009–2013, kt

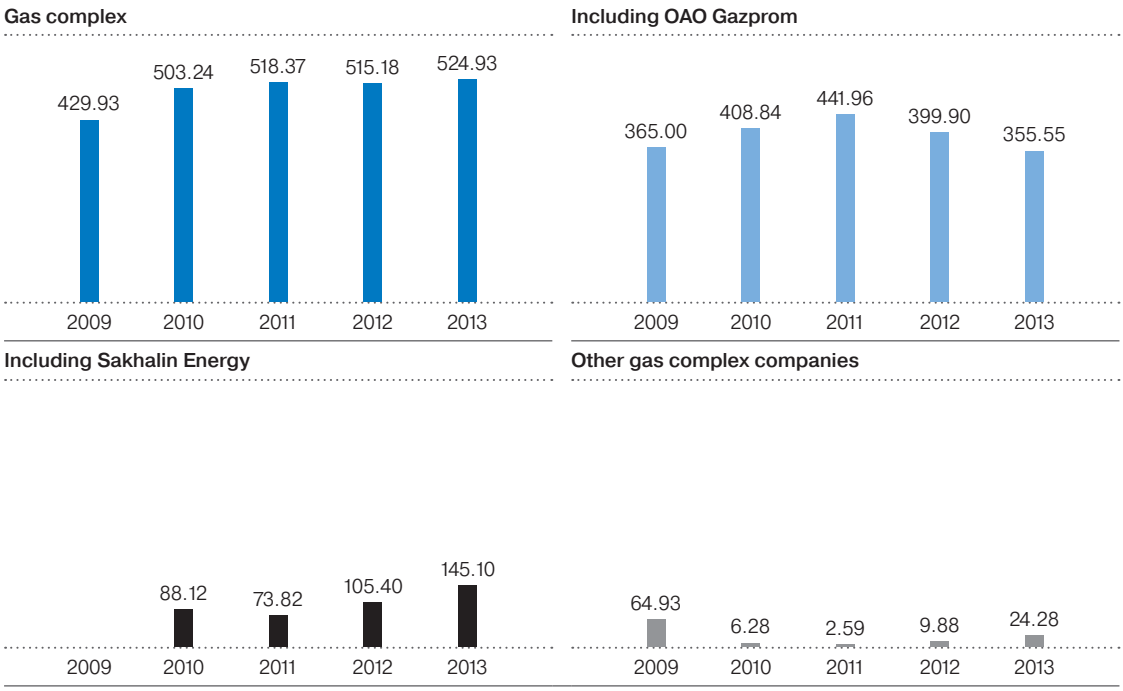


Dymanics of waste generation in *Gazprom Group* oil and oil-chemical complex, 2009–2013, kt



* The indicators of the *Gazprom neft Group* for 2009–2010 are given with account of ZAO Gazprom neft Orenburg starting from 2011.

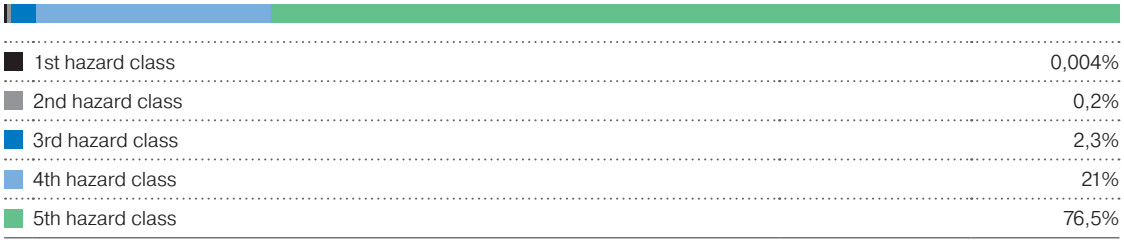
Dymanics of waste generation in gas complex of *Gazprom Group*, 2009–2013, kt



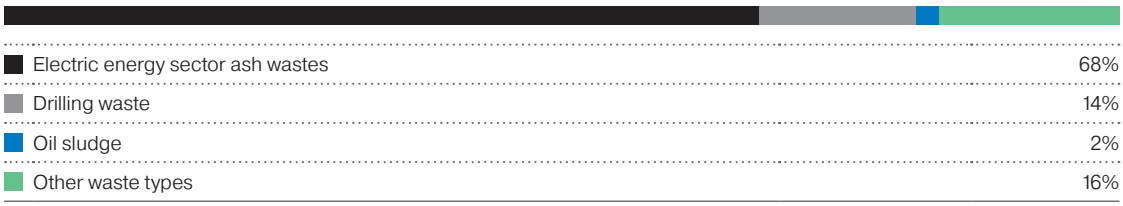
524.93 kt of wastes was formed in the gas complex companies, including 68.3% falling on the share of OAO Gazprom.

Most of production wastes of the *Gazprom Group* are referred to the 5th class of hazard for the environment, i.e. to almost non-hazardous wastes.

Structure of *Gazprom Group* waste by hazard classes, %



Structure of *Gazprom Group* waste by types, %



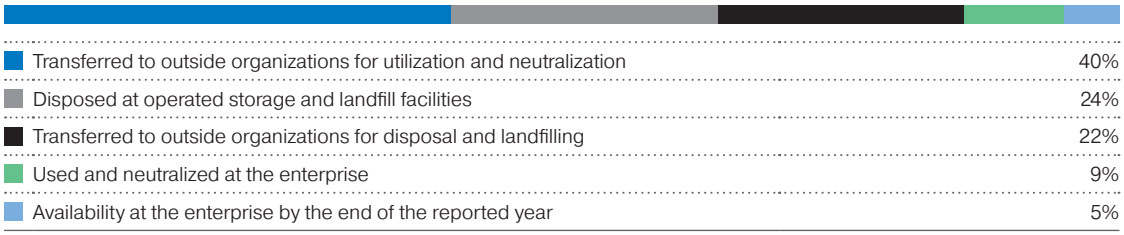
The following prevail in the waste structure of the *Gazprom Group* – ash waste of *Gazprom Energoholding* formed as the result of solid fuel combustion in heat power plants, drilling waste and oil sludge formed mainly in oil production and refinery facilities. The share of other waste makes approximately 16%; this group is presented by a wide nomenclature of usually non-hazardous and low-hazardous consumption waste in production.

In order to reduce hazardous waste accumulation volumes at production sites the *Gazprom Group* continuously works on the problem of optimization of their management, more active development of the selective waste collection system, use of waste in own production, waste transfer to specialized organizations for neutralization, processing and safe disposal.

In 2013 reduction of waste formation volumes was noted in OAO Gazprom in almost all segments of the activity. For example, the volume of waste formed in gas producing subsidiary companies turned to be lower than the 2012 indicator by 13.3%, which is associated with reduction of the well drilling volume. In gas transmission subsidiary companies reduction of the waste volume made 5.6%, in processing companies – 3.8% and in underground gas storage companies – almost 22%. Formation of waste at enterprises of subsidiary companies engaged in provision of the gas supply system in OAO Gazprom fell by 27%.

Dynamices of waste generation by activity types in OAO Gazprom, 2009–2013, kt

Structure of production waste management in OAO Gazprom, 2013, %



381.2 kt of wastes (including 18.2 kt available at the beginning of the year, 355.5 kt formed during the year and 7.5 kt supplied by other enterprises) were handled by the facilities of OAO Gazprom subsidiary companies. Of this amount, 239.77 kt were transferred to outside organizations, 92.48 kt were disposed in own landfill facilities, and 34.23 kt were used and neutralized at own production facilities.

The use of waste at own production facilities grew twice and neutralization increased by 16.5% in 2013 in relation to 2012. The volumes of waste disposal in own disposal and landfill facilities fell by almost 20%.

The *Gazprom Group* companies pay much attention to environmentally safe management of oiled wastes.

During the reported year 96.75 kt of oiled wastes were formed at the *Group* facilities, presented mainly by sludge from cleaning of pipelines, tanks and oil separating units, and a floating film from oil recovery units (gasoline separators). These are usually moderately hazardous wastes (hazard class III).

Structure of oil sludge formation in *Gazprom Group*, 2013, %

Gazprom neft Group	91.4%
OAO Gazprom	6.0%
Gazprom Energoholding	1.4%
Gazprom neftekhim Salavat	1.0%

In 2013, 113.88 kt of oiled waste (including 17.05 kt available at the beginning of the year, 96.75 kt formed during the year and 0.08 kt supplied by other enterprises) were handled by the facilities of the *Gazprom Group*. Of this amount, 97.20 kt were transferred to outside organizations for utilization, neutralization, storage and landfilling, and 2.87 kt were used and neutralized at own production facilities.

Structure of oiled waste management in *Gazprom Group*, 2013, %

Transferred to other organizations	85%
Availability at the enterprise by the end of the reported year	12%
Used and neutralized at the enterprise	3%

Drilling waste formation and safe management are valuable environmental aspects for oil and gas producing and refining enterprises of the *Gazprom Group*.

In 2013, 661.628 kt of drilling wastes were formed in total in the oil and gas complexes of the *Group*. 56% of those were transferred to specialized organizations, mainly for utilization and neutralization, 44% were disposed in own disposal and landfill facilities, and 1% was neutralized in own production facilities.

Share of *Gazprom* companies in the volumes of drilling waste formation, 2013, %

Gazprom neft Group	57%
Sakhalin Energy	22%
OAO Gazprom	21%

Structure of drilling waste management in *Gazrpom Group*, 2013, %

Disposed in own storage and landfill facilities	43%
Transferred to other organizations for neutralization	30%
Transferred to other organizations for utilization	23%
Transferred to other organizations for disposal and landfilling	3%
Used and neutralized at the enterprise	1%

In the process of development of the Bovanenkovo oil gas condensate field design solutions on implementation of the whole complex of measures for minimization of the impact on ecosystems in the process of drilling, including for drilling waste management, were brought into practice within the frames of measures for prevention of the adverse environmental impact. For example, a pitless method of wastes utilization by means of solidification with production of construction material designed for general construction works for construction of hydrocarbon fields was actively used for construction of production wells.

The method of encapsulation of drilling mud in a special unit for mixing with the Econaft preparation, the main components of which are construction lime and a modifier, serves as the basis of this technology. Lack of the adverse environmental impact of drilling wastes utilized with this methodology is confirmed by production environmental monitoring results.

Land and soil protection

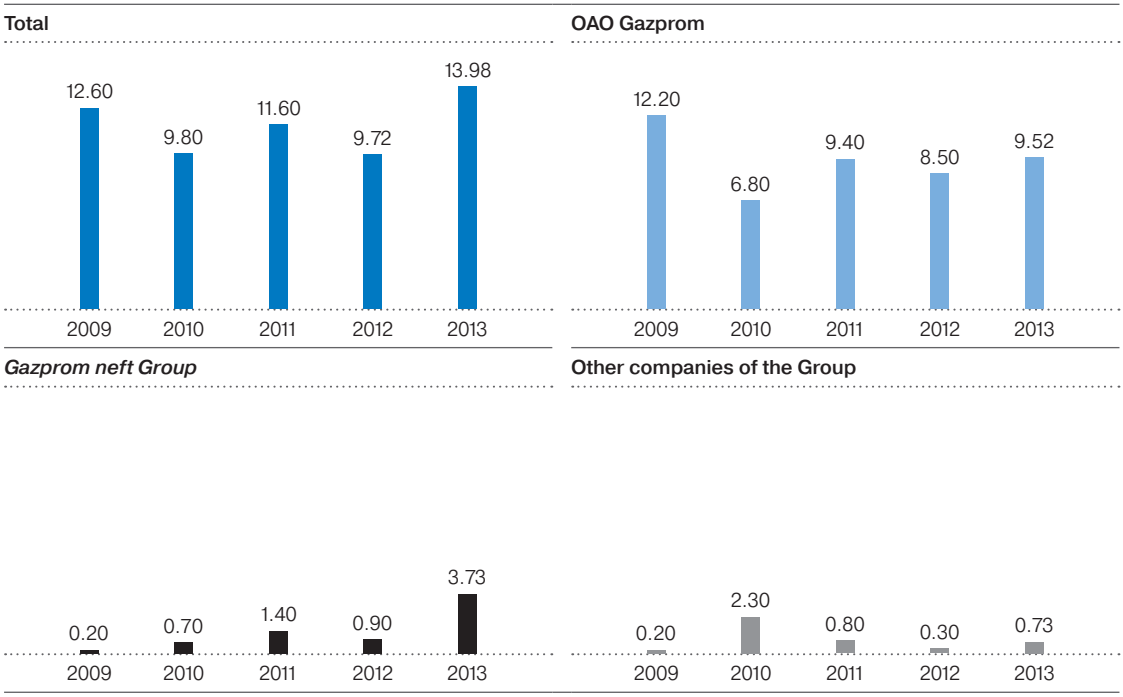
Geological exploration, construction and operation of wells, pipelines and other facilities lead to destruction and in some cases to contamination of lands. The *Gazprom Group* fulfills required measures for lands reclamation and rehabilitation for their further return to economic turnover in compliance with legislative requirements. The use of lands by *Gazprom Group* companies is executed with methods ensuring preservation and recovery of soil and land fertility and environmental functions.

Land reclamation is a complex of works aimed at recovery of productivity, the economic value of disturbed lands and at improvement of environmental conditions after industrial landscape destruction.

During the reported year the *Group* companies destructed 13.06 thousand ha of lands, including 8.78 thousand ha destructed by OAO Gazprom subsidiary companies, 3.21 thousand ha – by the *Gazprom neft Group*, 0.96 thousand ha – by OAO Tomskgazprom, and 0.11 thousand ha – by other companies of the *Group*. Lands were destructed as the result of hydrocarbon field development in the process of construction, repair and other works.

During the year 13.98 thousand ha were reclaimed, including by OAO Gazprom – 9.52 thousand ha, by the *Gazprom neft Group* – 3.73 thousand ha and by other companies – 0.73 thousand ha.

Reclamation parameters in *Gazprom Group*, 2009–2013, thousand ha



Most of enterprises reclaimed the lands disturbed during the year in full; some subsidiary companies reclaimed the lands disturbed in the previous year.

For example, OAO Gazprom pererabotka completed work for liquidation of the consequences of oil and gas contamination within the Urengoy-Surgut gas condensate line right-of-way (2.07 ha in total); biological cleanup of oil contaminations completed at the area of the Vuktylskyi District and the Sosnogorskyi District (areas of pits and gas condensate lines).

OOO Gazprom dobycha Krasnodar worked out in natural conditions the newest patented technologies of OAO Gazprom for soil and land recovery in compliance with the requirements to agricultural lands; disturbed lands at the area of 14.7 ha were reclaimed, including the area of the Priazovsky natural reserve. The quality control of performed works was executed with the use of the bioindication method.

The *Gazprom neft Group* completed inventory of disturbed lands for identification of priority land plots for reclamation. Reclamation works were performed in accordance with the approved Program for recovery of the land quality within 45 objects of accumulated environmental harm (consequences of the activity of previous land users); 58 mud pits were reclaimed.

Inspections of soil correspondence to environmental norms – soil, geobotanic, agrochemical and other land inspections – are performed within the frames of production environmental control and monitoring during the facilities construction and reconstruction period.

Energy saving

OAO Gazprom successively implements the policy of energy saving and energy efficiency improvement for production processes on the basis of state corporate requirements:

— Federal Law No. 261 dated November 23, 2009 "On Energy Saving and Improvement of Energy Efficiency and Introduction of Changes to Specific Legislative Acts of the Russian Federation";
— RF Government Regulation No. 340 dated May 15, 2010 "On the Sequence of Establishment of Requirements to Programs in the Sphere of Energy Saving and Improvement of Energy Efficiency of Organizations Performing Regulated Types of Activity";
— Order No. 214-e of the Federal Service for Tariffs dated March 30, 2012 "On Establishment of Requirements to Programs in the Sphere of Energy Saving and Improvement of Energy Efficiency of Natural Monopoly Entities Providing Services for Gas Transmission via Trunk Gas Pipelines";
— "OAO Gazprom Energy Saving and Energy Efficiency Improvement Concept for the Period of 2011–2020" (approved by Order No. 364 of OAO Gazprom dated December 28, 2008).

In 2013 the OAO Gazprom Energy Saving and Energy Efficiency Improvement Program for 2013 (approved by the Chairman of OAO Gazprom Management Committee of) No. 01-67 dated February 08, 2013) was fulfilled, aimed at solution of the following tasks:

— reduction of FER consumption for the most valuable cost items for own process needs in subsidiary companies;
— domination of energy saving in the process of stage-by-stage reduction of OAO Gazprom energy consumption to the economically justified level;
— fulfillment of energy saving measures within the frames of the "Complex Program for Reconstruction and Technical Rearming of Gas Production Facilities for the Period till 2016", the "Complex Program for Reconstruction and Technical Rearming of Gas Transmission Facilities, BCS and CS of UGS for the Period of 2011–2015" and the "Complex Program for Reconstruction and Technical Rearming of Gas Transmission Facilities and Compressor Stations of Underground Gas Storages for 2011–2015";
— improvement of energy efficiency of production processes.

The work performed for implementation of energy saving measures within the frames of corporate programs of OAO Gazprom during the reported year allowed to preserve the tendency of reduction (stabilization) of specific energy consumption indicators in its production processes.

In trunk gas transmission the specific rate of FER (gas, electric energy) for own process needs made 30.33 kg c.e./mmcm•km, which was below the target indicator of specific ER rate equal to 36.88 kg c.e./mmcm•km established by Order No. 214-e of the Federal Tariff Service dated March 30, 2012.

In general, gas consumption for own needs made approximately 49.63 bcm for the main production types of OAO Gazprom for gas production, transmission, underground storage, processing and distribution. Total electric energy consumption reached 14.88bn kWh of which about 5.4 % was spent for own power stations. Moreover, 22.54mm Gcal of heat energy was consumed for process needs (69.5% produced in own facilities).

2.3mmt c.e. fuel were saved as the result of implementation of the "OAO Gazprom Energy Saving and Energy Efficiency Improvement Program for the Period of 2011–2013" by OAO Gazprom subsidiary companies in 2013, including:

— 1,922.3mmcm of natural gas;
— 293.4mm kWh of electric energy;
— 217.9 thousand Gcal of heat energy.

The total FER economy, taking into account actual prices for energy resources made RUB 6,280.5mm.

Results of implementation of OAO Gazprom energy saving and energy efficiency improvement Program in 2013

Activity type	Natural gas, mmcm	Electric energy, mm kWh	Heat energy, Gcal
Gas, condensate, oil production	238.04	6.15	22.11
Gas transport	1,642.99	256.28	55.65
Underground gas storage	15.68	1.99	0.00
Gas, condensate and oil processing	15.69	21.22	137.53
Gas distribution	9.89	7.74	2.64
Total	**1,922.29**	**293.38**	**217.93**
Total, thousand t c.e.	**2,191.41**	**95.35**	**31.13**

The highest FER economy (85.0%) falls on trunk gas transmission by means of fulfillment of a wide energy saving measures complex.

Gas economy parameters in 2013 (trunk gas transmission)

Orientation of gas economy	Value of economy, mmcm
Reduction of gas drain during repair on line sections of TGP	540.18
Optimization of operating modes of GTS process facilities	335.83
Reconstruction and upgrade of CS process facilities	282.59
Maintenance of GPU energy parameters at the rated level by means of repair	276.38
Reduction of gas losses at GTS process facilities	82.54
Reduction of expenditures for process needs of auxiliary production	57.01
Reduction of gas costs for process needs of CW and CS	47.75
Improvement of hydraulic efficiency of gas pipelines	20.52
Introduction of automatic control, teleautomation systems and improvement of gas meter stations	0.19
Total	**1,642.99**

Gas economy structure, 2013, % (trunk gas transmission)

Reduction of emissions of gas venting for repair on line sections and CS	33%
Optimization of operating modes of GTS process facilities	21%
Reconstruction and upgrade of CS process facilities	17%
Maintenance of GPU energy parameters at the rated level by means of repair	16%
Reduction of expenditures for process needs of CW, CS, auxiliary production, etc.	8%
Reduction of gas losses at GTS process facilities	5%

Main parameters of electric energy economy in 2013 (trunk gas transmission)

Measures to save elecric energy	Value of economy, thousand kWh
Optimization of operating modes of electric equipment	107,087.0
Management operational arrangements	69,326.3
Maintenance of electric equipment energy parameters at the rated (design) level by means of repair	33,768.8
Introduction of variable frequency drives and electric engine cushion start	17,228.3
APP reconstruction and construction	16,563.4
Introduction of rational lighting, heating and ventilation systems	8,699.7
Introduction of automatic electric energy metering systems and improved electric energy metering devices	3,290.2
Equipment reconstruction and upgrade at CS and TGP line sections	295.4
Total	**256,277.1**

**Structure of electric energy economy, 2013, %
(trunk gas transmission)**

Optimization of operating modes of electric equipment	42%
Management operational arrangements	27%
Maintenance of electric equipment energy parameters at the rated (design) level by means of repair	13%
Introduction of variable frequency drives and electric engine cushion start	7%
APP reconstruction and construction	6%
Implementation of rational energy consumption circuits, automatic electric energy metering systems and metering devices, upgrade of CS and line section equipment	5%

In 2013 the work for implementation of the international standard ISO 50001:2011 in the OAO Gazprom energy saving policy was conducted. For example, starting from August 23, 2013, a corporate document R Gazprom 2-1.20-673-2012 “Energy Saving Control System in OAO Gazprom” was brought into effect. This will allow for implementation of management solutions based on improvement of production energy efficiency control, improvement of economic concernment about energy saving results both of individual workers and subsidiary companies in general.

The following shall be noted as measures aimed at improvement of the energy saving control system in 2013.

The Deputy Chairman of OAO Gazprom Management Committee V.A. Markelov approved the OAO Gazprom Energy Saving and Energy Efficiency Improvement Program for the period of 2014–2016 on December 22, 2013.

The work for FER economy completed within the frames of the Energy Saving Program in 2012 was approved at the meeting of the OAO Gazprom Coordination Committee for Environmental Protection and Energy Efficiency Issues (meeting protocol No. 03-78 dated June 20, 2013). Tasks for preparation of proposals to the Chairman of OAO Gazprom Management Committee on arrangement of financing of gas transmission works with the use of mobile compressor stations and analysis of the volumes of process gas losses by OAO Gazprom gas transmission organizations were set.

At the meeting of OAO Gazprom Scientific and technical council, section “Environmental Protection. Energy Saving”, on April 17, 2013, the actual scientific and technical problems related to methodological problems of transfer to rating on the basis of the best available technologies, ensuring environmentally safe and energy efficient development, preparation, transportation, storage and processing of hydrocarbon resources were discussed.

Bonus payment to workers who ensured FER economy is provided by the procedure of financial stimulation of gas- and energy saving in subsidiary companies of OAO Gazprom approved by Order 83 of OAO Gazprom dated May 13, 2011.

The main innovative decisions that consistently reduce energy consumption in gas transportation and reduce costs of these energy-intensive operations, including construction of new trunk pipelines, are as follows:

— Implement and run GPUs with a effi ciency not less than 36%;
— Increase working pressure to 11.8 MPa in onshore sections of trunk pipelines and to 22 MPa in the Nord Stream offshore pipeline;
— Use GPUs of manifold-free and modular configuration with modular gas cooling units; upgrade and optimise operation of existing gas air cooling units;
— Implement dry self-acting seals and gas-oil heat exchangers for compressor stations;
— Use high-strength large-diameter pipes with internal smooth coating;
— Apply pipeline hot tapping technology;
— Use variable-speed electric drives on processing equipment;
— Use renewable energy sources for consumers on a pipeline and remote consumers.

In 2013 implementation of the short term Energy Saving and Energy Efficiency Improvement Program of OAO Gazprom for the period of 2011–2013, aimed at development of the activity of OAO Gazprom and its main subsidiary companies producing, transmitting, processing and storing

gas underground in the sphere of energy efficiency improvement and achievement of targets defined by the "OAO Gazprom Energy Saving and Energy Efficiency Improvement Concept for 2011–2020" approved by the Board of Directors of the Company was completed.

Taking into account the requirements of the Russian legislation, the Concept makes provision for target energy saving and energy efficiency indicators in the gas segment of the *Group* business on production and technological processes in gas production, transportation, processing and underground storage:

— implementation of the technically possible energy saving potential in all activity types till 2020 is estimated equal to 28.2mmt c.e.;
— reduction of specific consumption of natural gas for own process needs and losses in main activity types – at least 11.4%;
— reduction of emissions of greenhouse gases – at least 48.6mmt of CO_2-equivalent.

Results of Achievement of Energy Saving Objectives for the period of 2011–2013

— The actually achieved FER economy made 7.3mmt c.e.
— The actually achieved reduction of specific consumption of natural gas for own process needs and losses in 2011–2013 made approximately 7.96%.
— The actually achieved reduction of greenhouse gas emissions in 2011–2013 made approximately 11.2mmt of CO_2-equivalent.

Another important trend in raising energy effi ciency in 2011–2013 was the use of mobile CS while servicing the pipelines: five gas transportation subsidiaries carried out nine gas re-directions from serviced to operating gas pipelines with the use of mobile CS. These operations saved over 21mmcm of natural gas in the gas transportation system.

The *Gazprom neft Group* continued work on formation of a constantly effective energy management system, which will allow to transfer from individual technical measures to complex system solutions in the sphere of technologies and energy saving management.

Introduction of energy saving technologies, development and use of methodologies based on the principles of rational use of energy resources are the priority tasks of *Gazprom Energoholding*. The program documents on energy saving and energy efficiency are brought into effect in all energy generating companies. Middle-term energy saving programs for the period till 2015 were implemented in Mosenergo and OAO OGK-2, and the Environmental Policy was implemented in OAO TGC-1.

Parameters of envinrimental activity and environmental impact of OAO Gazprom abroad

OAO Gazprom transgaz Belarus – 100% subsidiary company of OAO Gazprom, transmitting natural gas via GTS of the Republic of Belarus. OAO Gazprom transgaz Belarus comprises more than 8,100 km of gas pipelines, 5 line CS, 3 UGSF, and 232 gas-distributing stations.

In 2013 increase of commodity-transport work by 8.6%, injection and extraction volumes by 13.7% and the total operating time of aggregates by 24.1% caused general growth of polluting emissions by 9.6% as compared to 2012. Meanwhile, the specific emission of NOx per fuel gas unit was reduced by 10.4%.

Fulfillment of the work complex for efficient use of natural gas allowed to reduce methane emissions by 2.28 kt. The volume of emissions was also significantly reduced during repair works on line sections of TGP – the methane total emission made 2.2 kt or 3.2 times less than in 2012.

In the Korbinskoye LPUMG solar batteries and an additional low-capacity boiler were installed at the boiler station for hot water supply during the non-heating period. This all allowed to prevent methane and nitrogen oxide emissions in the air.

Increase of water intake volumes by 8.2% is associated with the use of water resources from surface sources for construction of the Mozyrskoye UGSF.

Measures for reduction of polluting discharges together with effluents into surface water bodies were performed in some subdivisions. The water discharge and effluents treatment system was reconstructed in the Krupskoye LPUMG. Regular operational tests of treatment facilities were performed.

OAO Gazprom transgaz Belarus reconstructed water discharge systems of the Krupskaya and the Krupki KS with construction of storm effluents treatment facilities. During repair works at

the Torzhok-Minsk-Ivatsevichi LPUMG gas blowdown till the values of GDS process parameters was performed; a new technology of composite coupler usage without gas bleeding from the repaired section was applied; the production site heat supply system of the Sloninskoye LPUMG was upgraded, as the result of which it became possible to utilize heat energy from the power station.

The performed measures for production waste management optimization allowed to reduce the total volume of its formation by 33%, while the volume transferred for landfill turned to be less by 362 t, or 23.9%.

In 2013 OAO Gazprom transgaz Belarus paid for nature management in the volume of 24,151.6mm Belorussian rubles, which is 40.6% higher than in 2012. Alteration of tax rates for nature management payments and growth of polluting emissions into atmosphere influenced increase of the sum.

In the reported year the territorial subdivisions of the Ministry of Natural Resources and Environmental Protection carried out three complex inspections at OAO Gazprom transgaz Belarus facilities for verification of meeting the environmental legislation requirements. Two violations of the established requirements to production waste management were identified. Violations were eliminated within the defined term.

In the previous year the Company also completed work for implementation of the environmental management system.

In October 2013 the Company acted as the voice of OAO Gazprom during the EMS control audit by the international company Det Norske Veritas. The auditors confirmed correspondence of the Company's environmental activity control system to corporate norms. As the result, changes covering the sphere of application of the OAO Gazprom environmental certificate to OAO Gazprom transgaz Belarus were made in this certificate.

In December 2013 the environmental management system of the Company passed successfully the certification for meeting the requirements of the state standard of the Republic of Belarus STB ISO 14001-2005.

Adverse environmental impact prevention

Environmental assessment of projects

Environmental impact occurs during construction and reconstruction of production and infrastructure facilities. That's why the main task of designers is to minimize possible impacts and harms by means of development of the environmental measures complex as related to specific natural and territorial conditions.

The assessment of the assumed economic activity environmental impact is done on the basis of engineering environmental research within the planned construction area. The environmental components condition and the level of the existing industrial load are studied and analyzed in the process of research. The data received is taken into account in the process of development of design solutions on the basis of selection of the most environmentally and economically feasible variant.

Gazprom pays special attention, while choosing TGP routes and placing areal facilities, to development of designs of disturbed land reclamation during construction, preservation of natural reserve areas and complexes, objects of cultural and historical heritage, and discussion of environmental aspects of designs with the public and associations of citizens.

Constant environmental monitoring is executed during construction and operation for identification of negative tendencies influencing the environment and timely taking of required technical and organizational measures for their prevention.

OAO Gazprom initiatively started executing corporate expert examination before submission of pre-design and design documentation to the state expert examination board in 1994. This allowed to improve the quality of OAO Gazprom design materials. The sequence of corporate expert examination is regulated by STO Gazprom 2-2.1-031-2005 "Regulation on Expert Examination of Predesign and Design Documentation in OAO Gazprom".

The Directorate of Energy-Saving and Environment of the Gas transportation, under ground storage and utilization Department of OAO Gazprom is the responsible structural subdivision of OAO Gazprom in the sphere of environmental expert examination management and fulfillment. Expert examination of design targets is executed for verification of correspondence to the requirements of the Russian Federation effective environmental legislation, legislation in the energy saving sphere, STO Gazprom, international norms and rules.

In the reported year technical assignments and technical requirements for design for 22 reconstruction, upgrade and construction objects; predesign and design documentation for 243 reconstruction, upgrade and construction objects were submitted to the Directorate of Energy-Saving and Environment of the Gas transportation, under ground storage and utilization Department of OAO Gazprom for corporate environmental expert examination. Technical assignments for design, predesign and design documentation for a number of fundamental production and Olympic objects were examined and agreed, including:

— "Reconstruction of the Urengoy – Novopskov gas pipeline at the Petrovsk – Pisarevka section by the Beginning of Gas Supply via the Southern Stream Gas Pipeline";
— "Development of the Kovyktinskoye gas condensate Field for the Pilot Project Period";
— "New Railway Obskaya – Bovanenkovo. Bovanenkovo station – Karskaya station section as a part of the building lot New Railway Obskaya – Bovanenkovo";
— "Motor winter road for extended action Obskaya station – Stake 193 km";
— "Integrated Development of the Shtokman gas condensate Field. Phases 2 and 3";
— "Mountain Touristic Center of OAO Gazprom", including ropeways and ski slopes, engineering and transport infrastructure facilities (design and research works, construction)" (for the 3rd, 4th, 5th, 6th, 8th, 10th, 13th, 14th, 16th, 17th, and 18th construction stages";
— "Mountain Climatic Resort Alpica-Service including ropeways and ski slopes, engineering and transport infrastructure facilities (design and research works, construction)…", 1st and 2nd stages".

Expert examination of sets of documents on field development and UGSS capacities expansion facilities was conducted:

— "Development of the oil margin at the Semanovskaya Deposit of the Tazovskoye oil gas condensate field for the period of pilot production";
— "Expansion of the Russia – Turkey gas pipeline capacities at the Izobilnoye – Dzhubga section for gas supply to the Dzhubga – Lazarevskoye – Sochi gas pipeline"
— "Construction of a booster compressor station at the Combined Onshore Process Hydrocarbon Preparation Complex of the Sakhalin-2 project";
— "Justification of investments to autonomous gasifying of LNG consumers in the Kamchatka Territory";
— "Justification of investments to formation of gas refining and gas chemical complexes on the basis of valuable components of gas in the Valanginian deposits of SRTO fields;
— "Investment design of construction of low-energy facilities for electric and heat supply of consumers in the Krasnodar Territory on the basis of the Zapadno-Kazachye gas field";
— "Justification of investments to a complex project of gas supply of southern areas in the Irkutsk Oblast, including formation of gas refining and gas-chemical assets";
— "UGSS expansion for provision of gas supply to the Southern stream gas pipeline". 2nd stage (Eastern corridor) for provision of gas supply in the volume of up to 63 mc per year;
— "Justification of investments to liquefied hydrocarbon gas production on the basis of the Kirinskoye gas / condensate field for autonomous gasifying of the Sakhalin Oblast";
— "Development of Cenomanian-Apt deposits in the Kharasavey gas condensate field";
— "Trunk gas pipeline "Power of Siberia". Stage 1. Chayanda-Lensk section;
— "Reconstruction of gas-field structures of the Stepnovskoye UGSF station";
— "Development of the Chikanskoye gas condensate field for the pilot production period";
— "Oil-condensate line Urengoy – Purpe";
— "Development of the Chayandinskoye oil gas condensate field";
— "Novomoskovskoye UGSF" and others.

In 2013 a positive state environmental expert conclusion was received for design documentation for the following facilities "UGSS expansion for provision of gas supply to the Southern stream gas pipeline" (Western and Eastern corridors); "Ukhta-Torzhok trunk gas pipeline system. 2nd line (Yamal)".

The design documentation for the projects "Southern Stream gas pipeline (Western Corridor)", "Expansion of the Russia – Turkey gas pipeline capacities at the Izobilnoye – Dzhubga section for gas supply to the Dzhubga – Lazarevskoye – Sochi gas pipeline. Kubanskaya CS, Krasnodarskaya CS"; "Ukhta-Torzhok trunk gas pipeline system. 2nd line (Yamal) received the positive conclusion of the Russia's Main State Expert Board.

In 2013 environmental support of the project "Complex development of the Shtokman gas condensate field", technical documentation for the transmitted gas treatment unit for the Kazachya CS and the Krasnodarskaya CS continued; development of environmental impact assessment measures was started within the frames of justification of investments to the LNG plant construction project in the Leningrad Oblast.

Production environmental monitoring and control

Regular production environmental control and production environmental monitoring are arranged and performed in all companies of the *Gazprom Group* in compliance with the requirements of the Russian legislation and own regulatory documents.

Production environmental control is arranged at the level of each subsidiary company. Moreover, at the OAO Gazprom level there is a specialized body formed and successfully operating – the Environmental Inspection of OAO Gazprom. It performs internal EMS audits in subsidiary companies and provides methodological support of the environmental activity of OAO Gazprom subsidiary companies in addition to control of fulfillment by subsidiary companies and contractors of environmental legislation requirements, norms and rules in the environmental protection sphere.

In 2013 the Environmental Inspection of OAO Gazprom worked in the following areas:

— control of following of environmental legislation requirements, norms and rules in the environmental protection sphere, sound nature management and provision of environmental safety at important capital construction objects of OAO Gazprom;
— fulfillment of internal audits of Gazprom subsidiary company EMS;
— monitoring of achievement of OAO Gazprom corporate environmental objectives;
— control of correction and corrective actions on audit results (internal EMS audits) and production environmental control;
— analysis of reasons for norm excess and above-norm payment for adverse environmental impact at OAO Gazprom facilities;
— control of reliability of subsidiary companies' adverse environmental impact accounting;
— interaction with state control bodies in the environmental protection sphere;
— control of elimination of environmental legislation requirements violations identified by state control bodies.

In 2013 the Environmental Inspection audited 32,761 facilities in 52 subsidiary companies and organizations of OAO Gazprom (10 gas producing companies, 17 gas transmission enterprises, 17 underground gas storage enterprises, 5 gas processing plants, and subsidiary companies engaged in support activities – OOO Gazprom regiongaz, OOO Gazprom avia, OOO Gazpromtrans, OOO Gazprom liquefied gas). Audits of customers and general contractors performing works at critical building lot objects as well as USGG reconstruction and capital repair were inspected (OOO Gazprom invest, ZAO Gazprom invest Yug, OOO Stroygazconsulting, OOO Stroygazmontazh, OOO Gazprom tsentrremont, etc.).

Moreover, the Environmental Inspection, together with 26 subsidiary companies of OAO Gazprom, verified the completed corrective actions on the basis of internal EMS audit results in compliance with the "Schedule of Selective Inspections and Other Measures for 2013".

The results of completed inspections with recommendations on improvement of the environmental activity were brought to notice of the management of inspected organizations.

The production environmental monitoring system of the *Gazprom Group* has a high level of material rate; it comprises stationary and mobile laboratories, meteorological and aerological stations, automated control stations and monitoring wells. Despite this, measures for improvement of the material and process base of environmental monitoring are conducted annually.

OOO Gazprom dobycha Astrakhan metered the trans-border transport of pollutants with air in the area of the Astrakhan biospheric natural reserve; a monitoring station with a metering air control complex was installed. 145,236 measurements of environmental components were performed in compliance with the monitoring program; total overhaul of the environmental network of monitoring wells was completed.

OOO Gazprom dobycha Orenburg carried out technical rearming of the production environmental monitoring system – radio frequencies for automatic contamination control stations were agreed with the federal state enterprise Main Radio Frequency Center. Antenna masts and communication equipment were installed in compliance with the design on 24 automated air contamination control stations.

OOO Gazprom transgaz Moscow purchased a mobile environmental laboratory equipped with modern devices for environmental control of emissions, discharges, atmospheric air and soil.

OOO Gazprom transgaz Nizhny Novgorod carried out a complex of production environmental monitoring activities within the areas of natural reserves of a federal level – Muromsky and Klyazminsky – in the zone of passage of the Pochinki – Gryazovets TGP.

In 2013 **OAO Gazprom space systems** carried out geotechnical inspection of the line section of TGP parts on request of OAO Gazprom subsidiary companies. Materials both of space and aerial surveys fulfilled with the use of pilotless aircrafts were used for execution of the tasks set. In addition to fulfillment of the main tasks, the problems of production-environmental monitoring of gas transmission facilities were solved in the course of work. Detail monitoring level of 1:50,000 – 1:25,000 scale was achieved based on the space survey materials; and the local monitoring level of 1:10,000 – 1:2,000 scale was achieved on the basis of aerial photography materials with the use of pilotless aircrafts.

The main tasks solved in the course of works included control of water resources contamination, waste management, land and soil protection, and identification of zones of hazardous geological processes and events – flooding, landslide processes, carst, and erosion processes near TGP.

OAO Gazprom space systems, in the process of scientific research work on the subject "Development of the Methodology of Gas Transmission Facilities Diagnostic Inspection for OOO Gazprom transgaz Yugorsk with the Use of Pilotless Aircrafts", based on the materials of aerial photography performed with the use of pilotless aircrafts, developed the "Methodology of Environmental Control at the Area of the TGP Line Section (Including Hard-to-Access and Remote Areas), Compressor Stations, Settlements and at Adverse Impact Sources (STF, Waste Disposal Facilities, etc.).

The works showed that available disturbances in the environment in the impact zone of production facilities: presence of cutting areas, fires, flooding, swamping, destruction or full removal of the plant cover at the areas of unauthorized transport travel, development of pits, trenching; presence of unauthorized production and consumption waste dumps can be identified on the basis of the materials of aerial photography performed with the use of pilotless aircrafts very effectively, especially in hard-to-access zones, and expeditiously.

The methodology also allows to detect zones of hazardous geological processes and phenomena (flooding, landslide processes, carst, erosion processes) near TGP and justify the location of production environmental control stations.

OAO Gazprom neft Moscow Refinery, as agreed with the Nature Management and Environmental Protection Department of Moscow, connected the contamination control stations located in the sanitary-protection zone of the plant to the Unified Environmental Monitoring System of Moscow. The data from control stations is transferred to the SPBE Mosecomonitoring website on a real-time basis.

Continuous quality control of the air at the border of the sanitary protection zone is performed at all facilities of the ***Gazprom Energoholding*** companies. The environmental monitoring system installed on energy boilers of branches is used. This allows to trace the concentration of pollutants in exhaust gases on a real-time basis and when necessary to perform regime measures for reduction of emissions. The data of the automated environmental monitoring system of OAO Mosenergo, allowing to trace the pollutants concentration in exhaust gases of branch boilers on a real-time basis, is transferred to SPBE Mosecomonitoring of the Nature Management and Environmental Protection Department of Moscow.

Expenditures for production environmental monitoring and control in *Gazprom Group*, 2013, %

OAO Gazprom	73%
Gazprom neft Group	11%
Gazprom Energoholding	9%
Gazprom neftekhim Salavat	3%
Sakhalin Energy	3%
Other gas complex companies	1%

The *Gazprom Group* expenditures in 2013 for production environmental monitoring and control made RUB 2,026.1mm.

Accidents and incidents

Enterprises of the *Gazprom Group* represent facilities of increased hazard. Therefore, one of the main tasks is to provide required conditions for prevention of various extraordinary situations, and in the event of their occurrence – their soonest possible liquidation.

14 accidents occurred in 2013, including 14 with environmental consequences.

10 accidents with environmental consequences occurred at OAO Gazprom facilities (in 2012–2017), including 9 with natural gas losses. Natural gas combustion occurred in 6 cases, including 1 explosion at the facility of OOO Gazprom dobycha Nadym (Bovanenkovskoye oil gas condensate field, gas and gas condensate production shop 2). The area of lands contaminated as the result of accidents made 62 ha, and natural gas losses – 18.6mmcm.

It shall be noted that in 2009–2013 the number of accidents at OAO Gazprom facilities with natural gas losses fell by 47%.

Two accidents occurred at the *Gazprom neft Group* facilities (two accidents were registered in 2012 as well). Oil contamination of soil at the area of 39.8 ha became the environmental consequence of accidents.

Two accidents occurred at the Monomer Plant of *Gazprom neftekhim Salavat*, both with environmental consequences – 0.9 ha of water body surfaces were contaminated.

There were no accidents at the facilities of other *Gazprom Group* companies in 2013.

Preventive measures are taken annually in the *Gazprom Group* companies for prevention of accidents:

— technical inspection of pipelines at fields, injection of corrosion inhibitors;
— timely routine maintenance;
— development and fulfillment of anti-flooding measures;
— regular examination of liquidated conserved wells;
— regular helicopter inspection of TGP line sections and gas pipeline branches for detection of cracks and gas leaks, also with the use of laser locators;
— purchase of required equipment and devices for hydrocarbon spill liquidation.

All above-listed measures allowed to improve work reliability and reduce the probability of accidents at production facilities of the *Gazprom Group*.

In recent years no accidents with significant environmental consequences were registered at the *Gazprom Group* facilities.

Environmental risks insurance

Environmental insurance executed by the *Gazprom Group* as the emergency environmental contamination liability insurance is aimed at provision of environmental safety, compensation of the environmental harm and compensation of losses of third parties.

In 2013 OAO Gazprom signed a complex insurance contract providing for coverage of risks of harm infliction to environment, life, health and property of third parties in the process of land and marine exploration and drilling, hydrocarbon production, transmission, processing, storage, operation of sources of increased hazard, construction and other support operations. Therefore, all activity associated with environmental risks is insured.

The insurance covers OAO Gazprom and its 30 subsidiary companies, including OOO Gazflot, OOO Gazprom geologorazvedka, OOO Gazprom dobycha shelf and OOO Gazprom neft shelf.

The insurance contract is voluntary and serves as an addition to obligatory general liability insurance contacts of the owner of a hazardous facility (as per federal law No. 225-FZ dated July 27, 2010) The insurance contract replaced all voluntary general liability insurance contacts of legal persons operating sources of increased hazard, signed earlier by each subsidiary company.

State environmental control

In 2013, 279 violations of the environmental legislation of the Russian Federation were identified as the result of 198 state inspections of the *Gazprom Group* companies.

Of identified violations, 167 (60%) did not constitute any environmental threat; controlling bodies issued prescriptions without fine sanctions for them. Violations are eliminated within the established terms.

In 2013 fines for the total sum of RUB 7.75mm were paid, including by OAO Gazprom – RUB 3.9mm, by *Gazprom neft Group* – RUB 1.76mm, Sakhalin Energy – RUB 0.8mm, Vostokgazprom Group – RUB 0.5mm, *Gazprom Energoholding* – RUB 0.45mm, and other *Group* companies – RUB 0.34mm.

Scientific and technical support of environmental protection

Scientific research and development

Implementation of technical and process innovations, solution of actual environmental problems of the production activity in the *Gazprom Group* companies is based on the studies performed by leading Russian scientific organizations. These include authoritative industry-related scientific research and design institutes such as VNIIGAZ, NIIgazekonomika, Podzemgazprom, VNIPIgazdobycha, Promgaz, SevKavNIPIgaz, TyumenNIIgiprogaz, Giprogaztsentr, Giprospetsgaz. The companies of the *Gazprom Group* have long-term scientific relations with the Russian Academy of Sciences, the Lomonosov Moscow State University, the Tyumen State University, the Gubkin Russian State University of Oil and Gas and others.

Currently implementation of industrial projects without provision of environmental safety requirements is impossible. Research and development are annually carried out in the *Gazprom Group* companies; their results serve as a start for new facilities, implementation of new equipment, new technologies more perfect from the environmental standpoint.

Research and development executed on request of *Gazprom* correspond to the objectives of reliability and occupational safety improvement at production facilities, economic feasibility, economic safety and energy efficiency.

In 2013 the *Gazprom Group* carried out the following within the frames of scientific research and design works.

OOO Gazprom VNIIGAZ on request of OAO Gazprom carried out "Development of MPC norms for methane and an odorant of natural mercaptans in the ambient air of settlements and proposals on correction of the rated payment for their emissions in the air". Corresponding Gazprom recommendations were developed within the frames of R&D "Development of the regulation for calculation and rating of salvo emissions of natural gas in the air during process operations on the line section of trunk gas pipelines".

OAO Gazprom completed the R&D "Comprehensive assessment of existing and potential technologies ensuring safe development, preparation, transmission, storage and processing of hydrocarbon resources" and developed the recommendations "Formation and keeping of the register of best available technologies ensuring environmentally safe development, preparation, transmission, storage and refining of hydrocarbon resources".

The fifth environmental and process expedition "Yamal-2013" was held. The task of OOO Gazprom VNIIGAZ ecologists was to receive information on the environmental condition and the ethno-social conditions in the northern part of the Yamal District. The results of these studies will serve as the basis for the developed proposals on minimization of environmental and social harm during development of hydrocarbon fields in this region.

Detail studies of the environmental conditions and developed areas supplementing monitoring data of the previous four years and allowing for assessment of the environmental dynamics were conducted during the three-week expedition. In addition to the main works at the Kruzenshternskoye gas / condensate field, studies were continued at the area of the Bovanenkovskoye oil / gas condensate field.

Scientists from the Yekaterinburg Branch of the Institute of Plants and Animals Ecology, of the Urals Branch of the Russian Academy of Sciences worked together with the ecologists of OOO Gazprom VNIIGAZ in the "Yamal-2013" expedition. They studied the plant cover and the animal world as well as ethno-social living conditions of aboriginals in the Yamal District.

In 2013 studies on the project "Optimal Adjustment of Gas ACU Fan Blades" were conducted. Tests were executed in **OOO Gazprom transgaz Stavropol** and **OOO Gazprom transgaz Yugorsk** and showed high efficiency of blade re-arrangement from the electric energy consumption reduction standpoint.

Implementation of the technology on prevention of outgassing before repair by means of gas pumping from the repaired section with the use of mobile compressor stations will allow to save at least 500mmcm of gas per annum and prevent outgassing of about 80% from the

pipeline to be repaired, as per expert estimates. In this case gas remains in the pipe for sale with reception of corresponding additional income and environmental effect in the form of reduction of methane emissions in the air. In 2013 there was successful pumping in **OOO Gazprom transgaz Moscow, OOO Gazprom transgaz Tchaikovsky, OOO Gazprom transgaz Yugorsk** and **OOO Gazprom transgaz Ufa**. The total amount of gas left in GTN made about 18mmcm.

As of 2014 the Deputy Chairman of the Management Committee, V.A. Markelov approved the Program of Repair of the Trunk Gas Pipeline Line Section with the Use of Mobile Compressor Plants in compliance with the Regulation approved by Order 183 of OAO Gazprom dated July 06, 2012.

In 2013 **OOO Gazprom transgaz Tchaikovsky** carried out work on the project "Implementation of the Turboexpander Energy Unit with the Capacity 16 MW at GDS Dobryanka-2". According to the technical and economic evaluation, project implementation will allow to save costs of OOO Gazprom transgaz Tchaikovsky for power supply of its facilities by RUB 147–242mm per annum in 2013 prices, which corresponds to 50–80% economy from the current costs of the subsidiary company for electric energy purchase.

Implementation of the technology of exhaust gas heat utilization at CS is the most potential project, the implementation of which within a wide scale can significantly improve the energy efficiency of gas transport. **OOO Gazprom transgaz Yugorsk** has started implementing the pilot project on introduction of the exhaust gas heat utilization unit at CS. A technical commercial proposal providing for exhaust gas heat utilization from GPU with electric energy generation from 5 to 16 MW capacity with supply for CS own needs was prepared. The payback time of the project is 6.8 to 7.7 years.

OOO Gazprom dobycha Astrakhan developed a methodology of calculation of gaseous sulphur compounds emissions from non-stationary sources during production, filling and storage of sulphur for use with rating of pollutants emissions in the air, work planning for reduction of emissions, design monitoring (control) of polluting emissions in the air for the Astrakhan gas processing plant. A positive conclusion of the technical committee for standardization "Environmental Protection" on admission of the methodology for use was received in accordance with the established procedure.

OOO Gazprom transgaz Kazan, in order to reduce energy and resources consumption on the basis of high effective technologies allowing to simultaneously solve environmental problems, developed technical solutions and technologies of gas transmission at CS on the basis of heat utilization in 2013; it also developed technical requirements to design of compressor room reconstruction, prepared a technical and economic support of the gas transmission technology with heat utilization at the Arskaya CS being one of the largest CS in OAO Gazprom and servicing 7 gas pipelines including export ones. In order to improve energy efficiency and reliability of GPU energy saving, constructive and design documentation was developed for manufacture of a conversion transducer for a generator of own needs of the GPU-25I unit, which will ensure replacement of purchased electric energy and will eliminate the no-current condition in case of the external network switching. Completion of works, manufacture of a test specimen, installation, commissioning and interdepartmental tests of the conversion transducer for a generator of own needs of the GPU-25I unit are planned for 2015.

OOO Gazprom transgaz Samara developed a "Methodology for disposal of odorant and containers for its storage", the result of which was environmentally safe handling of odorant spillage sites and possibility of neutralization of odorant vapours in gas distributing stations in winter. The "Standard of the Organization on Environmentally Safe Handing of Natural Gas Odorant" was formed within the frames of this methodology.

OOO Gazprom transgaz Saint Petersburg developed the system of environmental and social aspects control during operation of the Portovaya CS and the line section from the Volkhovskaya CS to the Portovaya Bay. Work results: standard of the organization and regulations on environmental and social aspects control during operation of the Portovaya CS and the line section from the Volkhovskaya CS to the Portovaya Bay for 2013–2015. The work had a great value for implementation of OAO Gazprom obligation in the sphere of loan guarantees in relation to export crediting agencies and fulfillment of social and environmental commitments to the Economic Cooperation and Development Organization (ECDO); for execution of the agreement between OAO Gazprom and Citibank Europe plc with the

participation of Citibank International plc, with provision of an appropriation line; fulfillment of the conditions of the contract for provision of environmental and social control services between D'Appolonia S.p.A. (Italy), OOO Gazprom Invest zapad, OOO Gazprom transgaz Saint Petersburg and BNP PARIBAS S.A.

OOO Gazprom transgaz Tomsk developed the technology and equipment for production and household effluents treatment and neutralization. A test specimen of a packaged production and household effluents treatment and neutralization unit was manufactured, and technical requirements to the pulse electron accelerator and technical requirements to the effluents treatment complex were prepared.

OAO Gazprom neftekhim Salavat carried out a series of applied R&D important for improvement of the production processes environmental safety level, including such works as "Development of the Options of GO-4 Unit Effluents Treatment (Preparation of the Pollutants Balance)", "Development of a Collection of Industrial Microorganisms for Effluents Treatment", "Study of the Possibility of Utilizing Effluents from the Oil Atmospheric Vacuum Distillation Unit ELOU-ACT-6", "Study of the Possibility of Acrylic Acid Production Waste Utilization Technology Development", "Development of the Copper-Bearing Effluents Utilization Technology".

On request of **OAO Severneftegazprom** in 2013 an automated system for control of process gas losses after dry gas-dynamic sealing of GPU of BCS at the Yuzhno-Russkoye oil / gas field was developed. Implementation of the work reduced polluting emissions by 637 kt per year and greenhouse gas emissions by 13,377 kt per year in CO_2-equivalent.

OAO Severneftegazprom developed a reconstruction design for the production effluents treatment facility for water and methanol effluents treatment from mechanical impurities, oil products and iron oxides with neutralization of the treatment facilities sediment. Construction of a production and storm effluents treatment facility including effluents treatment from mechanical impurities up to concentrations no more than 50 mg/l, oil products no more than 50 mg/l and iron oxides no more than 3 mg/l is provided. Positive conclusion No. 89-1-4-0108-13 dated April 18, 2013, of the State Expert Examination Board was received. Facility purchase was planned for December 2013, and installation and commissioning – for the 2nd quarter of 2014.

On request of **OAO Gazprom neft**, R&D were performed for development of MPC for mixtures of saturated hydrocarbons, for formation of a single approach to emissions of these saturated hydrocarbon mixtures. Complex studies were performed, allowing to prepare materials for justification of norms for submission to the state rating committee. The work result is approved MPC for mixtures of saturated hydrocarbon C_1-C_5 and C_6-C_{10} and reception of the sanitary environmental conclusion for the MPC Project.

Introduction of best available technologies for environmental protection

Improvement of environmental safety and energy efficiency of the *Gazprom Group* companies' operational activity is achieved largely thanks to implementation of innovation technical and process solutions.

In 2013 the Adler TPP (thermal power plant) – a combined steam-gas power station with the capacity 360mm W (heat power – 227 Gcal/per hour) consisting of two autonomous energy blocks PGU-180 was commissioned. Process solutions and materials used for construction of the Adler TPP correspond to high Russian and international environmental standards.

Power station commissioning allowed to significantly improve power supply of Sochi, ensure reliable electric and heat supply of sports and touristic infrastructure facilities in the Imeretinskaya lowland and the facilities of Sochi development as an alpine resort.

The modern steam-gas cycle technology of the Adler TPP ensures a high efficiency factor (52%), low fuel consumption and reduction of polluting emissions in the air on average by 30% as compared to traditional steam power plants.

The cooling system of the station is designed as a closed recycling water supply system with dry ventilator coolers, thanks to which air humidity does not increase.

Natural gas – the most environmentally clean energy resource is the main and backup fuel of the Adler TPP.

The use of the newest engineering and architectural solutions allowed to naturally inscribe the station in the unique natural landscape. Lawns and alleys with the total area of 3 ha are designed at the area of the Adler TPP.

In 2013 the Zapolyarnoye field in the Tazovsky District of the Yamal Nenets Autonomous Okrug reached the designed capacity – 130bncm of gas per year.

Gazprom, while implementing the strategy in the gas production sphere, enters new gas-bearing areas and improves the efficiency of development of operating fields in the traditional Nadym-Pur-Tazovsky region. This is possible thanks to the use of progressive technical solutions and advanced, meant for operation in severe natural-climatic conditions, equipment with extended reliability.

The Zapolyarnaya main CS is one of most efficient stations in Russia; the station capacity is 354mm W. Modern gas pumping units with centrifugal superchargers on magnetic levitation of rotors are installed at Main CS. All actuating units are provided with remote control and the self-diagnostics system. GPU, while having high capacity, also have high environmental characteristics – the emission of nitrogen and carbon oxides is minimized.

Gazprom award in the scientific and engineering sphere

A competition for gaining OAO Gazprom Award in the scientific and engineering sphere is held annually. The award has been granted since 1998 and is an important component of the corporate scientific and engineering policy of *Gazprom*, aimed at stimulation of the use of innovations in the Company's activity and provision of its technological leadership in the world energy business.

Awards are granted for major developments in the spheres of gas production, transmission, storage, processing and use, completed by formation or improvement, and – which is most important – efficient use of new machinery, devices, equipment, and materials specimens. Only subsidiary companies and organizations of OAO Gazprom can apply for the Award.

The results of the competition for the Award are examined and approved at the OAO Gazprom Board of Directors' meeting. The Award winner receives a money reward, a memorable diploma and a badge of honor. Organizations which applied for the Award with works which won this Award are rewarded with a diploma as well. The authors of the work which took the first position are awarded with special badges and diplomas. *Gazprom* annually presents no more than 10 Awards. Regularly, most of scientific and engineering works used for application for the Award always have direct or indirect environmental effect.

On December 12, 2013, the Award winners of 2013 were rewarded at the OAO Gazprom Board of Directors' meeting.

Implementation of the results of works which won the Award in 2013 led to noticeable economic effect for *Gazprom* – RUB 42bn.

The following works became competition winners in 2013:

Development and implementation of the technology of gas well drilling waste underground disposal in permafrost, ensuring environmental safety during development of oil gas condensate fields in the far north, by the example of the Bovanenkovskoye oil gas condensate field

The technology providing for drilling waste disposal in impermeable permafrost with further transfer of drilling waste to solid-frozen condition has been developed.

The technology has no world analogues and allows to significantly simplify construction of underground collectors by means of use of new well equipment structures, arrangement of controlled heat destruction of the frozen massif and efficient lifting of thawed sand to the surface.

The efficiency of use of work results is achieved by means of reduction of OPEX and CAPEX for drilling waste disposal.

Comprehensive recovery technologies and innovation systems for disturbed land control in the areas of location of OOO Gazprom dobycha Krasnodar facilities

Contaminated land reclamation technologies and biological ecosystem control systems have been developed. Rational combination of fertilizers, humus compounds, spent drilling mud, permanent grass seeds, xanthane gum and microbial strains is used in reclamation technologies, which ensures a high rate of recovery of not only the top soil cover but fauna representatives of reclaimed areas as well.

The developed biological control systems allow to receive the forecast estimate of geoecological conditions of ecosystems within reclaimed areas.

The use of technologies within the area of OOO Gazprom dobycha Krasnodar. production activity, including the area of a federal-level natural reserve, allowed to reclaim and transfer 0.64 ha to agricultural lands.

Development and implementation of the innovation project of the heat insulation energy complex at the Chaplygin CS

A heat insulation energy complex was developed, allowing to produce environmentally clean electric energy with set quality in the quantity required for meeting of the Chaplygin CS basic demands. The energy complex differs with high reliability, simple operation and has minimum impact on the main gas transmission process. The work of the energy complex allowed to save more than 10 thousand t c.e. and multiply reduce polluting emissions in the air.

Implementation of the low-emission combustion technology in the combustor working cycle of operated gas pumping units of native and import production (PST combustor)

New structures of combustors were developed and implemented for GPU, allowing to reduce NO_x emissions till the level 50…60 mg per cm, which meets modern environmental requirements. As compared to foreign functional analogues equipped with complex devices for air rate regulation, genuine technical solutions for self-control of the mixture composition and automatic maintenance of the optimal mixture composition in the local area of the combustion zone were used as the basis of new combustor designs. The dimensions and technical characteristics of combustors allow to install them instead of a standard combustor without introduction of significant changes in the GPU design and the control system. Implementation of work results allowed to reduce NO_x emission from GPU in 2000–2012 by 69.2 kt.

Development and implementation of the complex of scientific engineering solutions during construction and commissioning of the Bovanenkovskoye oil gas condensate field

Principle scientific engineering problems of field development in extremely severe meteorological and geocryological conditions of the Yamal Peninsula were solved, including:

— minimum allocation of areas and minimum scope of engineering preparation of production areas by means of placement of the maximum number of production wells for different productive targets within one well pad area, with simultaneous provision of the required level of process facilities' occupational safety during their construction and operation;
— development and implementation of the innovation method of stage-by-stage multi-reservoir gas field development, ensuring efficient production of natural resources and OPEX and CAPEX reduction;
— heat insulating stalks and steam-liquid pipe cooling systems ensuring stability of the high-ice surface layer, rigid fixation of well support, foundation stability and soil permeability reduction were used for the first time in well structure.

The developed and implemented technical solutions are an innovation in the development of the Russian Arctic fields.

International cooperation

International cooperation in the environmental protection and energy efficiency sphere is an integral part of the OAO Gazprom activity within the frames of stable development provision.

In 2013 OAO Gazprom continued cooperation on the environmental safety and energy efficiency issues with a number of authoritative international organizations such as the International Gas Union and the European Business Congress (EBC).

The committee "Ecology and Health Service" held meetings on the following actual subjects: "Stable Power Economy – Stable Development. Innovation Environmental Solutions in the Gas Sector. Advanced Technologies in Industrial Medical Science" (February, Yugorsk), "Improvement of the efficiency of environmental management system application at gas industry facilities. Development and implementation experience (October, Armenia).

Environmental issues were also discussed at the meeting of the EBC Committee "Industry and Construction". In April 2013 a discussion on the subject "Natural Gas and Renewable Sources – Competitors or Partners" was held in Ljubljana (Slovenia). Experts concluded that natural gas and renewable sources can supplement each other, but in fact compete with each other now in European countries due to the use of non-market mechanisms, grants and various preferences. Moreover, the experts noted that the modern growth of coal generation discredits the whole "green" strategy of the European Union in full. The most real method to reduce greenhouse gas emissions and to ensure stable energy saving in the EU economy in the middle-term perspective is a combination of use of natural gas and renewable energy sources.

Environmental consequences of natural gas replacement with coal in Europe were also discussed at the EBC Committee's meeting "Ecology and Health Service" in November 2013 in Berlin "Natural gas and coal. Ecology and health service issues". The experts evaluated the adverse consequences for health and lifetime of the European population in connection with increase of coal use.

At the EBC meeting "Industry and Construction" in September 2013 in Hamburg technical aspects of construction and operation of underwater production complexes and pipelines were discussed. The members of the Committee analyzed and discussed the best practice in this sphere and noted that offshore pipelines are the most environmental and economic method of natural gas transmission.

In December 2013 the problems of reception, transportation, storage and use of natural gas mixtures with hydrogen were discussed in Berlin at the EBC Committee's meeting "Industry and Construction". The pilot project of hydrogen reception from water via electrolysis by means of the energy received from renewable energy sources, with further hydrogen supply to the gas transmission network was discussed at the meeting. Moreover, a project of hydrogen production from natural gas by means of adiabatic conversion was presented at the meeting. As the practice showed, the use of methane and hydrogen mixtures is a promising area but has a number of technical limitations. The use of a methane and hydrogen mixture for GPU (together with exhaust gas utilization) ensures increase of capacity, reduction of the fuel rate by 35–40%, and reduction of NO_x emissions by 4–8 times.

Taking into account the fact that the problem of air contamination is topical in the EU member countries, and the main reasons for contamination are coal termal power plants and the transport sector, a report of the Deputy Chairman of the OAO Gazprom Management Committee V.A. Markelov "Gas Motor Fuel and Environment in Europe" was presented at the meeting of the EBC Presidium in December 2013. It was noted in the report that, in compliance with the data of the European Environment Agency, more than a third of Europeans lives in tows with the excess of permissible air contamination levels in the EU, and 90% of Europeans live in towns with the excess of permissible air contamination levels established by the World Health Organization (WHO). According to the EBS Presidium's decision, the subject of development of the gas-motor transport and ecology in Europe was approved as the main subject of the General Annual Meeting in 2014.

In 2013 the European Business Congress continued implementation of the project "Forecast of Possible Environmental Consequences of Shale Gas Production in Europe". The project was initiated in connection with growing public concern and protests of ecologies in relation to the

beginning of large-scale development of shale gas fields in the USA. The opinions of experts on feasibility of its production in European countries are not unambiguous. The conditions formed are preconditioned primarily by the insufficient existing level of knowledge in this sphere.

Scientific analysis of possible shale gas production impact on the environment and health of the population was performed on the basis of the data in production areas in the USA and Canada for examination of negative and positive aspects of shale gas production within the frames of works on the project "Forecast of Possible Environmental Consequences of Shale Gas Production in Europe". Its results were submitted in October 2013 to the front office of the European Business Congress. Experts from Poland, Bulgaria, Germany and Russia provided expert estimates on the Project. A scientific report on possible environmental consequence of shale gas production in European countries will be prepared on the basis of project implementation results.

In 2013 the EBC Presidium approved the project "Evaluation of the Integral Environmental-Economic Effect for European Countries during Implementation of the Southern Stream Project". A comprehensive scientific analysis of the environmental and economic effect received by European countries – natural gas consumers during implementation of the Southern Stream project, including onshore and offshore gas pipeline sections, will be conducted as the result of project implementation. The Southern Stream project is a strategically important project aimed at not only strengthening of the energy safety of Europe but also provision of the favourable environmental condition of European countries.

The alternatives of the Southern Stream project (coal and atomic power economy, renewable energy sources, liquefied natural gas) will be studied within the frames of project implementation, the forecast of environmental condition parameters, health of the European population, quality of agricultural products will be provided, and the assessment of the economic effect for European countries – natural gas consumers in the process operation of the onshore and offshore Southern Stream gas pipeline sections will be given.

The company continued development of active scientific and engineering cooperation with foreign oil and gas companies: BASF/Wintershall Holding, GDF SUEZ, E.ON SE, N.V. Nederlandse Gasunie. Expert meetings were held in 2013 within the frames of implementation of the Agreement on Strategic Cooperation with the fund "Group of Companies "Delta Project". They discussed the following subjects: LNG, underground gas storage, natural gas transmission, energy efficiency and environmental protection. In the course of scientific and technical dialogs the parties discussed the topical problems of implementation of the best available and promising technologies ensuring improvement of energy efficiency and reduction of the adverse environmental impact.

Contacts with oil companies of the Pacific Ocean Region – the company Petrovietnam, the Chinese National Petroleum Corporation (CNPC), the gas corporation of Southern Korea (Kogas) were activated. The issues of the efficient strategy in the environmental protection sphere during hydrocarbon resources production and transmission, establishment of technical and environmental norms for oil and gas facilities, use of natural gas as gas-motor fuel and energy efficient technologies were of greatest interest for the parties for mutual discussions.

Year of Ecology in OAO Gazprom

Order No. 1157 dated August 10, 2012, of the President of the Russian Federation declared 2013 the Year of Environmental Protection in the Russian Federation for provision of the right of each human for favourable environment.

A decision on the Year of Ecology in OAO Gazprom in 2013 was taken by the initiative of the OAO Gazprom Coordination Committee for Environmental Protection and Energy Efficiency Issues.

Chairman of the Management Committee OAO Gazprom A.B. Miller approved the Plan of Measures for the Year of Ecology in OAO Gazprom. It included 1,226 measures for the sum RUB 5.5bn in total.

The Plan of measures included two blocks – the official measures of OAO Gazprom and measures of subsidiary companies in the sphere of reduction of the adverse impact, maintenance of the favourable environment in the regions of presence and the informational-educating activity in the environmental protection sphere.

Measures with practical results which would allow people living in the areas of *Gazprom* operation to see specific results of the Year of Ecology served as the basis of the Plan.

In the Year of Ecology in OAO Gazprom 8,213 planned and additional measures were taken. The Plan was exceeded by more than seven times.

Implementation of measures:

- **2,769** – in the sphere of reduction of the adverse environmental impact of production activity;
- **2,285** – for maintenance of favourable environment in regions of activity;
- **3,159** – for informational and educating activity in the environmental protection sphere.

Financing made **RUB 4,107mm**.

50 subsidiary companies of OAO Gazprom and contract organizations took part in the event of the Year of Ecology. The total number of participants of events made more than **70 thousands employees** of *Gazprom* and **90 thousands associate participants** (school and university students, families of employees, public members).

Official measures of OAO Gazprom

The initiative of OAO Gazprom on execution of the Year of Ecology in 2013 in OAO Gazprom coincided with the decision about execution on the Year of Environmental Protection in Russia as per Order No. 1157 dated August 10, 2012, of the President of the Russian Federation.

On December 12, 2012, start of the Year of Ecology in OAO Gazprom was announced at the International Conference “Prospects of Development of Low-Carbon and Renewable Energy Sources” by Chairman of the Management Committee OAO Gazprom A.B. Miller, and a Plan of Measures for the Year of Ecology was signed, which included 1,226 measures of the Administration of subsidiary companies in total.

OAO Gazprom took part in the official opening of the Year of Environmental Protection in the Russian Federation, which was held at the 7th Moscow International Conference of Wild Nature “Gold Turtle”. OAO Gazprom exhibition stands with photo-works executed by the employees of subsidiary companies were placed in the central part of the Festival exposition. The employee of OOO Gazprom dobycha Yamburg Danil Khusainov became the prize winner of the competition.

In February 2013 the following meeting of the European Business Congress was held: “Stable power economy – stable development. Innovation Environmental Solutions in the Gas Sector. Advanced technologies in industrial medical science”. Moreover, a scientific-practical conference “Innovation Decisions, Energy Saving and Environmental Technologies in the Fuel and Energy Complex (FEC) was held in Yugorsk.

The delivery onboard the International Space Station of a memory card with the logo of the Year of Ecology in OAO Gazprom, where files with nature photographs from the Wild Nature Festival were recorded, became an interest act.

On June 05, 2013, V.A. Markelov – the Deputy Chairman of Gazprom's Management Committee – held a selective meeting with managers of OAO Gazprom subsidiary companies, devoted to the Day of the Ecologist and the World Environment Day. While congratulating the participants of this meeting with holidays, he noted that the work of the Company in the environmental protection sphere gains special value in 2013 announced the Year of Ecology in OAO Gazprom.

More than 30 thousand people from 70 subsidiary companies of OAO Gazprom all over the country – from Vladivostok to Kaliningrad, from Nadym to Krasnodar – took part in the All-Russia’s litter pick “Green Russia” on August 31, 2013. Most active participants from the number of OAO Gazprom subsidiary companies were rewarded with certificates of honour by the All-Russia’s environmental social movement “Green Russia” for active participation in measures.

Filming on the technology of production and use of gas motor fuel as the most environmental one was arranged within the frames of the Year of Ecology by OAO Gazprom. Distribution of the motion picture is planned for the second quarter of 2014 in all state television and radio companies of the entities of the Russian Federation.

The motor rally “Blue Corridor – 2013” along the route Saint Petersburg – Vyborg – Kaliningrad – Finland – Sweden – Denmark – Germany – Poland – Lithuania – Latvia – Estonia organized by OAO Gazprom became a very valuable event of the year as well. It once again demonstrated the advantages of natural gas use as environmentally clean motor fuel.

Presentation booklets on the activity in the environmental protection sphere and on the environmental management system of OAO Gazprom were published. A booklet “In Harmony with Nature” was published.

During the whole year most valuable events within the frames of the Year of Ecology were described at the OAO Gazprom website. A rating of 147 construction contractors was prepared based on the environmental parameters of their activity. The rating results were brought to notice of 21 organizations – customers of the Gazprom Group.

The 3rd international scientific-practical conference “Environmental Safety in Gas Industry” (ESGI-2013) held on December 11–13 by OAO Gazprom and OOO Gazprom VNIIGAZ was the finalizing event of the Year of Ecology in OAO Gazprom.

The work of the company was opened by Deputy Chairman of Gazprom's Management Committee V.A. Markelov. The President of the Russian Gas Society, the Deputy Chairman of the RF State Duma Committee for Energy, P.N. Zavalny, the First Deputy of the Russia’s Minister of Labour S.F. Velmyaykin, the Minister of Ecology and Nature Management in the Moscow Oblast A.B. Shomakhov greeted the conference participants.

Measures of subsidiary companies

The subsidiary companies of OAO Gazprom completed 8,213 measures in fact within the frames of the Year of Ecology, which testifies to overfulfillment of the approved Plan by more than seven times.

The plan “Measures of Subsidiary Companies” comprised three blocks of objectives:

— reduction of the adverse environmental impact of production activity,
— maintenance of favourable environment in the areas of activity,
— informational and educating activity and environmental culture improvement.

Reduction of adverse impact of production activity

319 measures were planned in the area of “Reduction of the Adverse Impact of Production Activity”; 2,769 measures were completed in fact.

Air-protecting measures

548 air-protecting measures were taken, emission of pollutants in the air in the amount of 47.9 kt was prevented.

Most of completed air-protecting measures were associated with the use of efficient technologies for reduction of methane emissions in the air.

For example, gas transmitting subsidiary companies, while doing rep-air of TGP line sections, transferred gas to consumers and used the technology of gas pumping from repaired sites with the use of mobile compressor stations, cut-in under pressure, etc.

OOO Gazprom UGS performed operations for gas bypass from aprons and high-pressure communication lines to TGP, depletion in the event of termination of gas pumping and collection from process communication lines for the needs of process boiler stations.

OOO Gazprom transgaz Nizhny Novgorod bought membrane nitrogen plants for CS process communication lines purge (TGP Pochinki – Gryazovets).

OOO Gazprom transgaz Saratov replaced PST burners on GPU. OOO Gazprom transgaz Ukhta upgraded GPU combustors GTK-10, GTN-16M; steel welded couplers were used for gas pipeline repair for prevention of outgassing.

OAO Gazprom transgaz Belarus took measures for reduction of the number of operating dust catchers when purging CS, GIS for reduction of methane emissions in the air, in addition to operations for maximum possible gas transfer in the event of repair of gas pipelines; gas from accumulators was used at NGV-refueling compressor stations during their repair and certification, and other measures were taken.

OOO Tomskgazprom began design and construction of the gas compressor station for AG utilization.

OOO Gazprom dobycha Astrakhan completed construction, installation and startup for commissioning of the overhead crossing for pointwise filling of railway tanks with light oil products with a hydrocarbon vapour regeneration unit.

Water-protecting measures

More than 220 water-protecting measures were implemented for achievement of the corporate environmental objective for reduction of contaminated effluents discharge to water bodies.

Most of water-protecting measures taken were associated with optimization of process modes, reconstruction and repair of treatment facilities, cleanup of drainage systems, inspection and servicing, as the result of which the environmental load was reduced.

For example, OOO Gazprom dobycha Astakhan. prepared in 2014 sewage treatment facilities (STF) of the Pushkin Children’s Health Center with the capacity in terms of effluents treatment 0.04mmcm per year for commissioning.

During the year OOO Gazprom dobycha Orenburg carried out construction and installation at facilities 2, 3, 5 of startup complexes at the building lot “Reconstruction of OGK Treatment Facilities”. The Complex on plant was installed for termination of discharge of salt solutions after Na-cationite filter flushing into sewage systems.

OOO Gazprom transgaz Samara carried out operational tests of treatment facilities for effluents at car washers. OOO Gazprom transgaz Ukhta completed capital repair of process equipment of the facility “Sewage Treatment Facilities of the Northern LPUMG”.

OOO Gazprom transgaz Surgut commissioned the underground water treatment station VOS-500, the Zapolyarnaya production site of the Novo-Urengoy LPUMG, biological treatment STF and the oiled effluents treatment plant of the Samsonovskoye LPUMG.

Improvement of waste management activity

474 measures in the waste management sphere were taken.

The work of subsidiary companies corresponded to the modern principle of 3R (reduce – reuse – recycle) in full and included the following measures:

— commissioning of drilling waste recycling facilities;
— arrangement of safe handling of toxic production and consumption waste;
— implementation of the system for selective collection of utility waste fractions and arrangement of collection and transfer of waste suitable for use as secondary resources to the population;
— purchase of sets for demercurization of mercury-bearing waste and thermal neutralization of production waste.

OOO Gazprom dobycha Astrakhan. reclaimed disturbed lands and liquidated unauthorized dumps identified as the result of inventory at the land plot within the mining lease of the Astrakhan gas / condensate field. In 2013 the area of 37.233 ha was cleaned. 1,971.1 t of construction and repair waste, 10.75 t of ferrous metal unsorted scrap and 27.69 t of wood waste were removed.

OOO Gazprom dobycha Orenburg carried out a whole complex of low-cost works for minimization, safe management and useful application of production waste (drilling mud, oiled waste, spent mercury-bearing lamps, spent tires, remains of block sulfur in gas processing storages).

Sets for demercurization of mercury-bearing waste were bought by OOO Gazprom transgaz Surgut for reduction of environmental risks associated with highly toxic waste.

OOO Gazprom dobycha Urengoy brought into effect the “Sequence of Collection, Storage, Transportation and Transfer of Spent Undamaged Lead Accumulators with Unpoured Electrolyte”, and transfer of such hazardous waste to a specialized organization was arranged.

OOO Gazprom dobycha Nadym arranged drilling waste (drilling mud) transfer for neutralization for their further use; removal of above 110 t of ferrous metal scrap and more than 20 t of spent motor tires for processing was arranged.

OOO Gazpromtrans installed a thermal waste neutralization plant.

Reduction of waste landfill disposal volumes in the amount of more than 170 kt was achieved as the result of completed measures.

Selective waste collection was arranged in branches of subsidiary companies: OOO Gazprom dobycha Irkutsk, OOO Gazprom dobycha Krasnodar, OOO Gazprom dobycha Noyabrsk, OOO Gazprom dobycha Orenburg, OOO Gazprom pererabotka, OOO Gazprom UGS, OOO Gazprom transgaz Volgograd, OOO Gazprom transgaz Yekaterinburg, OOO Gazprom transgaz Saint Petersburg, OOO Gazprom transgaz Samara, OOO Gazprom transgaz Ufa, OOO Gazprom transgaz Ukhta, OOO Gazprom transgaz Tchaikovsky, OOO Gazprom transgaz Krasnodar, OOO Gazprom tsentrremont, OOO Gazprom podzemremont Orenburg and OAO Gazprom gazoraspredeleniye.

Nature Rehabilitation Works (Land Reclamation, Liquidation of Accumulated Environmental Harm, Preservation of Biodiversity)

310 measures for environmental rehabilitation were taken.

— more than 1,800.6 ha of lands were reclaimed near facilities of subsidiary companies;
— 55 objects of accumulated environmental harm were liquidated – dumps, contaminated areas, left wells etc.;
— more than 18.7 million pcs of young valuable fish species were released as compensation measures to water bodies of Siberia, Kamchatka, Sakhalin, Povolzhye, etc.

In 2013 most of OAO Gazprom enterprises carried out full reclamation of disturbed lands; some subsidiary companies reclaimed lands disturbed in previous years.

OOO Gazprom dobycha Astrakhan reclaimed lands within the area of 28.7 ha, rehabilitated disturbed lands and liquidated unauthorized dumps detected on the basis of inventory results at the land plot within the Astrakhan gas / condensate field mining lease. The area of more than 2.35 ha was cleaned up; 11.1 t of construction waste and 10.75 t of metal scrap were removed. Biological pit reclamation was executed within the area of 12.857 ha.

OOO Gazprom dobycha Krasnodar tried out the newest technology of soil and land rehabilitation till requirements to agricultural lands; disturbed lands within the area of 14.7 ha were reclaimed, including the area of the Priazovsky natural reserve. The quality control of performed works was executed with the use of the bioindication method.

OOO Gazprom pererabotka carried out works on liquidation of the consequences of oil and gas contamination at the areas of the Urengoy – Surgut gas condensate line; biological cleanup of oil contamination was performed at the area of the Vuktyl and the Sosnogorsk Districts. In total, 63.7 ha of lands were reclaimed.

OAO Gazprom gazoraspredeleniye reclaimed lands at the area of 1.64 ha disturbed in the process of facilities construction and planted areas of enterprises.

Environmental Monitoring and Control

621 measures aimed at improvement of the material and process environmental monitoring base were fulfilled in the area of "Environmental Monitoring".

OOO Gazprom dobycha Astrakhan carried out overhaul of the environmental monitoring well network, equipped the monitoring station with the metering pollutants atmospheric transport control complex of the Astrakhan biospheric natural reserve, and carried out 200,528 measurements of environmental components in compliance with the monitoring program.

OOO Gazprom dobycha Orenburg carried out technical re-arming of the production environmental monitoring system – work for agreement of radio frequencies for automatic air contamination control stations in the FSUE "Main Radio Frequency Center" was conducted. Antenna masts and communication equipment (ShBD) were installed on 24 automated air contamination control stations in compliance with the design.

OOO Gazprom transgaz Moscow bought a mobile environmental laboratory on FordTransit chassis, equipped with modern devices for environmental control of emissions, discharges, atmospheric air and soils.

OOO Gazprom transgaz Surgut bought a gas analyzer "Polar ExT" designed for determination of the pollutants content in atmospheric air.

OOO Gazprom transgaz Nizhny Novgorod carried out a complex of works for production environmental monitoring of environmental conditions at the areas of the federal-value natural reserves Muromsky and Klyazminsky in the zone of passage of the Pochinki-Gryazovets trunk gas pipeline.

OOO Gazprom transgaz Tchaikovsky started installation of the module laboratory complex for environmental monitoring.

Some subsidiary companies carried out helicopter survey of TGP and gas pipeline branch sections for methane leak detection.

Energy Saving

For Energy saving held 438 measures.

The FER economy made:

— 215,575.73 Gcal of heat energy,
— 281,369.01 thousand kWh of electric energy,
— 1,920.75mmcm of natural gas.

In total, 2,312.37 thousand t c.e. were saved.

Optimization of process modes, useful gas utilization during gas pipeline repair etc. were priority works.

Many subsidiary companies transferred to energy saving LED lamps, which has a double environmental effect – the economy of energy resources and minimization of formation of toxic mercury containing wastes after withdrawal of luminescent lamps from service. Moreover, light relays were installed for control of outside lighting, equipment of telecontrol systems for alternative energy sources (wind-powered generators, solarcell arrays) process control.

Motor transport transfer to natural gas

Based on the results of motor transport transfer to natural gas, the total number of re-equipped and purchased motor transport using CNG made 1,044 units.

The highest number of motor transport units was transferred to gas in the following subsidiary companies: OOO Gazprom transgaz Stavropol, OAO Gazprom gazoraspredeleniye and OAO Gazprom transgaz Belarus .

OAO Gazprom transgaz Belarus manufactured a pilot motor machinery specimen with an engine working on compressed natural gas (MAZ 203965), within the frames of implementation of the Program for Development of the Natural Gas Use as Motor Fuel in the Republic of Belarus, developed for execution of the Protocol on Intentions of Cooperation between the Government of the Republic of Belarus and OAO Gazprom.

OOO Gazprom transgaz Stavropol became the leader amidst subsidiary companies in terms of motor transport transfer to natural gas. The company is the participant of the regional program “Use of Compressed Natural Gas as Motor Fuel in the Stavropol Territory”. During the year OOO Gazprom transgaz Stavropol transferred 174 motor transport units to gas and sold above 93mmcm of CNG as motor fuel, which allowed to reduce polluting emissions in the air by 17 kt.

Maintenance of favourable environment in the areas of activity

Rehabilitation of water bodies

307 measures were taken in total (72 as per plan).

The employees of subsidiary companies put in order more than 187 water bodies and their coastal belts within the frames of the acts: All-Russia’s Environmental Litter Pick “Green Russia”, “Clean Coast”, “Creek, Live!”, “Clean Water”, “Delta Operation” and others.

OOO Gazprom transgaz Yugorsk carried out measures for cleanup of the coasts of the Ob, Severnaya Sysva, Kyzym Rivers, the Un-Mukhyngtu Lake etc.

The fifth environmental expedition “Delta Operation – Beat the Attack of Plastic” was hold in the Astrakhan Oblast. Gazprom dobycha Astrakhan was the general partner of the event.

The specialists of the Rescue and Recovery Operations Administration of OOO Gazprom transgaz Nizhny Novgorod rehabilitated the Sheremetev pond in Bogorodsk of the Nizhny Novgorod Oblast. Large-scale works for water body cleanup were initiated in August and completed in the end of September. During the month gas specialists pumped out more than 45,000 t of water and removed almost 10,000 t of silt and dirt to the polygon.

Waste removal from the coasts of the Volga, Osuga and Vazuza Rivers was carried out in OOO Gazprom transgaz Saint Petersburg; the coastal zone of the water body in the “Osinovaya Roscha” park (UNESCO Object of World Heritage) was put to order.

OOO Gazprom transgaz Ukhta cleaned up the coasts of the lake at the area of the National Park Plescheyevo Lake within the frames of the act “River Belt”.

OOO Gazprom transgaz Saratov employees cleaned the Andreyevskiye ponds and neighbouring areas at the area of the regional natural park “Kumysnaya Polyana”.

OOO Gazprom transgaz Moscow, OOO Gazprom transgaz Kazan, OOO Gazprom transgaz Stavropol, OOO Gazprom transgaz Orenburg and OOO Gazprom transgaz Yugorsk rehabilitated springs.

Accomplishment and Planting of Areas within Activity Districts

More than 30,000 people from 50 subsidiary companies of OAO Gazprom and organizations involved by them from all-over the country from Vladivostok to Kaliningrad and from Nadym to Krasnodar took part in the All-Russia's environmental litter pick "Green Russia".

OAO Gazprom subsidiary companies completed **1,845 measures** (142 as per plan) **for accomplishment and planting of areas** in activity districts, including **1,317 for waste removal from areas** and **528 for forest and green belt rehabilitation**. **About 4,106 ha of lands were cleaned up and accomplished. More than 283 thousand trees and bushes were planted, and above 6,000 flower beds were set out.** Alleys and parks of gas specialists appeared in towns and settlements.

OOO Gazprom dobycha Nadym took part in the environmental expedition for sanitary cleanup of the Bely Island being a part of the polar bear habitat. OOO Gazprom dobycha Nadym became the main partner of the environmental expedition to the Bely Island in the Kara Sea, ensuring delivery of tractors, dozers and other required machinery to the island and back for cleaning of littered and contaminated areas. The island was cleaned up from collapsed buildings, left machinery, fuel tanks and other industrial waste, and waste preparation for removal to the continent for further utilization was ensured. In total, 167 t of wastes were collected and removed during the period of the main stage of the expedition. Funds received from metal scrap hand-over equal to more than RUB 400 thousand were sent to the Yamine charity fund for children's treatment.

OOO Gazprom dobycha Nadym, in honor of the Year of Ecology, presented the residents of Nadym with a unique entertaining-educating yard Ecopark where 17 art objects were located. The main function of exhibits was to remind of careful nature treatment and new methods of solution of environmental problems. A combination of an entertaining and an educating components of the park allow to effectively bring the information on ecology to notice of people.

OOO Gazprom transgaz Moscow, together with the Vernadsky Non-Governmental Environmental Fund, carried out litter picks in the museum-mansion house of V.I. Vernadsky in the Tambov Oblast. Park alleys, lawns and coastal lines of water bodies cleaned up from waste were rehabilitated at the area of the museum of about 2 ha.

OOO Gazprom transgaz Tomsk carried out significant fieldwork: they rehabilitated 46 ha of forests, planted 204 thousand cedar and Silver fir transplants at the area of the Tomsk, the Kemerovo Oblasts and the the Altai Republic. On the All-Russia's Day of Forest Planting OOO Gazprom transgaz Tomsk planted the fir forest in the suburb of Novokuznetsk together with handicapped people, in the retirement and invalids house (Settlement of Kytmanovo of the Altai Republic); an orchard was planted.

OOO Gazprom transgaz Stavropol took part in the annual act "Preserve the Nature of Stavropol": they removed waste from the area of the Chlinsky forest neighbouring the St. John and St. Mary monastery, the areas of the Novotroitsk water body, recreational zones in the Arkhyz foothill, the forest-park zone of the Privolnoye Settlement, removed unauthorized dumps, and accomplished 12 memorials in honour of warriors who died during the years of the Great Patriotic War.

OOO Gazprom pererabotka, within the frames of the act "Save and Preserve" planted 600 cedar transplants at the area of the cedar garden in the Village of Saygatina together with the administration of the Surgut District, children from the school forest division and students of the Surgut State Teachers' Training University.

OOO Gazprom dobycha Orenburg carried out work on cleanup and accomplishment of the area of the GazoviK tourist camp located in the floodplain zone of the Ural River and the area adjoining it. They took part in the team-staff training in Orenburg for cleanup of the floodplain area of the Ural River where children's health-improving camps Chayka and Romashka and the recreational zone Dubki are located. The area along the railway in Orenburg was cleaned up from waste. The area of the cleaned zone made 3 ha. The weight of removed waste was 1.5 t.

OOO Gazprom tsentrremont held a series of events "Experience Pleasure from Good Things Done" aimed at cleaning of forests and coastal zones of water bodies in the areas of presence.

Preservation of biodiversity

133 measures were taken. 39 specially protected natural areas of federal, regional and local values were supported.

The work of OAO Gazprom subsidiary companies consisted in not only financial support but also in direct participation of Gazprom employees in cleanup of specially protected natural areas, rehabilitation of forests, protection of wild animals and their habitats, assistance to the specially protected natural areas personnel in arrangement of environmental monitoring, arrest of jacklighters, etc.

For example, the employees of OOO Gazprom transgaz Tomsk continued rendering corporate assistance to the natural monument – the Sugun Peninsula damaged by fire (Tandovo Lake, Novosibirsk Oblast). Here animals included into the Red Book live and pine-birch and birch forests unique for the forest-steppe belt grow. OOO Gazprom transgaz Tomsk became the winner of the international project "Environmental Culture. Peace and Consent" for implementation of the project "Revive Sugun" in the category "Preservation of Biodiversity and Rehabilitation of Landscapes".

OOO Gazprom transgaz Ukhta assists in the project of the United Nations Development Programme "Strengthening of the System of Specially Protected Natural Areas in the Komi Republic for Preservation of Biodiversity of Primary Forests in the Area of the Upper Reaches of the Pechora River". Helicopter patroling and anti-jacklighter races were carried out in the National Park Yugyd va; monitoring of the condition of valuable and protected plant and animal species was conducted; environmental landing troops were formed. The area of the National Park Plescheyevo Lake was cleaned within the frames of the international act "March for Parks". Hydrochemical monitoring of the condition of the lake and surface watercourses was carried out for evaluation of the impact of emissions from the main production site Pereslavl on the specially protected natural area National Park Plescheyevo Lake. The impact of hydrophysical environmental parameters and the species composition of zooplankton on the vendace growth rate was evaluated. Charitable help was provided to National Parks Yugyd va, Plescheyevo Lake and the Pechora-Ilych Nature Reserve.

OOO Gazprom dobycha Kuznetsk, together with the Russian Geographic Society carried out studies for detection of animals, plants and mushrooms included into the Red Book of the Russian Federation within the area of the Taldinskoye field.

OOO Gazprom pererabotka provided financial support to state natural reserves Verkhne-Tazovsky (Yamal Nenets Autonomous Okrug), Yugansky (Khanty-Mansi Autonomous Okrug – Yugra) and the National Park Yugyd va (the Komi Republic). Oversnow machinery was purchased using charitable funds.

The employees of OOO Gazprom UGS carried out environmental patroling in 2013 and took part in planting of 350 tree transplants at the area of the Losiny Ostrov (Elk Island) National Park.

On request of OOO Gazprom invest the Scientific Center "Protection of Biodiversity" of the Russian Academy of Natural Sciences" fulfilled environmental measures at the area of the Krymsky natural reserve. Work for minimization of the harm done to animal world and compensation of the harm at the area of the Krymsky zoological nature reserve was carried out: artificial water bodies – breeding grounds for amphibia were created; artificial holes, shelters and places for egg incubation were formed for reptiles; artificial nests for birds were constructed; birds were fed, artificial roost sites were formed for birds of prey, death of amphibia and reptiles on motor roads was prevented; North Caucasian pheasants bred in bonds were released in natural habitats etc. The volume of financing of this request made RUB 3.275mm.

In the Ivanovo branch of OAO Gazprom gazoraspredeleniye gas specialists actively participated in the accomplishment of the natural monument – the dendropark of the Privolzhye forest division in Ples which degraded in recent years. By means of this act they tried to attract attention to the problems of the unique park where plants from different parts of the world are collected. Gas specialists also took part in cleanup of the park Tamansky Forest – the most frequently visited forest massif in Stavropol.

OOO Gazprom transgaz Makhachkala carried out litter pick within the specially protected natural area of the natural reserve Samursky Forest – the only subtropical liana forest in Russia located at the area of the Dagestan Republic. 10 t of waste were removed within the frames of the World Act "Clean the Planet from Waste".

OOO Gazprom transgaz Yugorsk organized and took measures for placement of birdfeeders in the Ural park of Karpinsk and squirrel feeders, and for development of the mini-park "Squirrel House".

More than 18.7 million pcs of young valuable fish species were released as compensation and voluntary measures to water bodies of Siberia, Kamchatka, Sakhalin, Povolzhye etc., including: OOO Gazprom transgaz Tomsk, together with OOO Gazprom invest Vostok – more than 9 million pcs of Siberian salmon young fish, OOO Gazprom dobycha shelf – 8.5 million pcs, OOO Gazprom geologorazvedka – more than 190 thousand pcs, OOO Gazprom transgaz Yugorsk – more than 60 thousand pcs, OOO Gazprom transgaz Ukhta – more than 30 thousand pcs. The specialists of the environmental service of OOO Gazprom transgaz Yekaterinburg took part in stocking of fish in the Kasarga Lake in the Chelyabinsk Oblast; 0.5 t of carp young fish was released to the water body. OOO Gazprom transgaz Samara, within the frames of the Year of Ecology in OAO Gazprom, released 4 thousand sterlet young fish bred at the unique floating production-experimental fish plant federal state enterprise Srednevolzhrybvod. Sterlet was included in the Red Book of the Samara Oblast due to threat of disappearance.

Almost all subsidiary companies made and hung nesting boxes and feeders for birds and provided charitable help for specially protected natural areas in management of monitoring of hunting animal and rare bird species population conditions for the International Day of Birds.

Informational and educating activity in the environmental protection sphere

626 measures were planned in the area of the "Informational and Educating Activity in the Environmental Protection Sphere" in 2013; **3,159 measures were taken in fact**.

Forums, conferences, meetings, round-table conferences

176 environmental forums, conferences and meetings of the federal and regional levels were organized and held during the year; more than 3 thousand people took part.

OOO Gazprom dobycha Noyabrsk and OOO Gazprom transgaz Yugorsk took part in the meeting of the section "Ecology and Health Service" of the European Business Congress and in the scientific practical conference and in the exhibition on the subject "Innovation Solutions, Energy Saving and Environmental Technologies in the Fuel and Energy Complex" (Yugorsk).

OOO Gazprom transgaz Tomsk took part in the international project "Environmental Culture. Peace and Consent", in implementation of the project "Revive Sugun", in the 4th International Scientific Practical Conference "Continuous Environmental Education: Problems, Experience, Prospects", and in the 7th All-Russia's Conference "Ecology and Production. Prospects of Development of Economic Environmental Protection Mechanisms". OOO Gazprom transgaz Tomsk became the winner in four categories in the competition "100 Best Organizations of Russia. Ecology and Environmental Management" (Saint Petersburg).

Presentations, exhibitions, acts, social environmental advertisement

473 exhibitions and presentations devoted to International Days of Water, Earth, Birds were held. More than 3 thousand people took part in the events.

The most large-scape projects include construction of the Ecopark in Nadym near the new building of the administration of OOO Gazprom dobycha Nadym. 17 exhibits were placed in total at the area of approximately 500 square meters. These include items made of secondary raw materials: robot Wall-E, fresh water bottle increased in scale by several times, a symbolic globe filled with waste, a cycle parking and benches. Exhibits demonstrating the use of environmentally clean and energy-saving technologies: lanterns operating on compressed natural gas, a retro automobile, nesting boxes "singing" like birds with motion sensors were placed on the yard. Ecopark facilities requiring electricity receive energy from a wind-powered generator installed nearby.

OAO Gazprom transgaz Belarus held an advertizing campaign for gas motor fuel popularization. The informational content of the website metan.by devoted to the use of compressed natural gas as motor fuel was updated.

OOO Gazprom dobycha Orenburg, within the frames of the Year of Ecology published a series of booklets on environmental education "Main Areas of Energy Saving", "Expansion of Gas Motor

Fuel Use", "Production Environmental Monitoring System", "Ecology is the Priority of Socially Responsible Business of OOO Gazprom dobycha Orenburg", etc.

Subsidiary companies manufactured variable souvenir and advertising products with symbols of the Year of Ecology in OAO Gazprom for execution of image acts, presents and prizes for environmental competitions, social and environmental banners, thematic calendars; trips and other educating events were held.

Informational openness and environmental education

599 measures were taken for improvement of informational openness and environmental education; more than 800 publications were initiated.

In the Year of Ecology subsidiary companies organized cycles of TV and radio broadcasting, publications in printed mass media and formation of informational pages on the websites of subsidiary companies, executed informational stands for employees and carried out meetings with public representatives.

For example, OOO Gazprom dobycha Astrakhan held a meeting on occupational safety, environment and labour protection in 2012, where they discussed tasks for 2013 and invited representatives of 25 organizations, including power bodies, bodies of the Federal Service for Supervision of Natural Resource Usage, the procuratorate, the Federal Service on Customers' Rights Protection and Human Well-being Surveillance, and mass media. The Company also took part in the cycle of weekly TV programs "On Nature and Weather", "Nature and Human" on the TV channel "7+" with weekly provision of the information on environmental conditions in the area of the Astrakhan gas field, environmental aspects of the activity of the Company, and weekly weather forecast as per the data of the Astrakhan Center for Hydrometeorological Service. Articles on environmental protection were published in the newspaper "Pulse of Aksaraysk" under the heading "Year of Ecology".

OAO Gazprom neft – ONPZ, within the frames of the operation "Clean Air", held meetings with public environmental organizations "Ecological Center", the Russian Geographical Society, the All-Russian Society of Nature Protection (VOOP), "Ecological Watch of Siberia" on environmental protection issues in Omsk.

Excursions, trips, press-tours

256 excursions, trips and press-tours to production facilities were organized; more than 7 thousand people took part.

OOO Gazprom energo organized and held the press-tour in the zone of impact of production facilities of its North Caucasian branch on the subject "Intellectual Power Economy and Ways of Upgrading Housing and Utilities Infrastructure Facilities for Improvement of the Environmental Conditions in the North Caucasus".

OOO Gazprom dobycha Urengoy carried out excursions to production facilities for students of the Yamal Oil and Gas Institute, the Tyumen State University, and the Novo-Urengoy Gas Industry Technical School.

OOO Gazprom transgaz Tchaikovsky took part in the environmental-touristic route "Winter Round-the-World Trip to Novy Village – 2013" devoted to the Year of Environmental Protection arranged by National Park Nechkinskiy.

Senior school students of the Tolka Village in the Krasnoselkupsky District and the Urengoy Village of the Purovsky District visited production facilities of the Yuzhno-Russkoye oil gas condensate field at the invitation of OAO Severneftgazprom . Students learnt the environmental and production aspects of work of the gas producing company, visited modern high-technology facilities of the gas field, observed the work of main and auxiliary production from a single control board and learnt occupational and recreational conditions of gas specialists.

Training of students

545 measures (79 planned) were taken for training of students (lectures, seminars, informative lessons-discussions, demonstrations of documentary films).

In total, more than 45 thousand school and university students took part in the events of subsidiary companies.

OOO Gazprom transgaz Ukhta and OOO Gazprom dobycha Urengoy, together with the Vernadsky Non-Governmental Environmental Fund, held Days of Environmental Education in the Komi Republic and the Yamal-Nenets Autonomous Okrug. Representatives of Russian scientific and public organizations and enterprises spoke to students. Exhibitions, the Eco-erudite olympiad, lectures of leading scientists working in the area of research of the academician V.I. Vernadsky's heritage were organized.

The Employees of the Directorate of Energy-Saving and Environment of the Gas transportation, under ground storage and utilization Department of OAO Gazprom lectured for students of the Gubkin Russian State University of Oil and Gas.

Managers of OOO Gazprom dobycha Nadym held 15 open eco-lessons for Nadym and Pangoda students. Managers of structural subdivisions (branches) of the company spoke about the production activity and how it fits together with environmental protection measures.

Improvement of environmental knowledge of employees

More than 20 thousand employees of subsidiary companies and contractors improved the level of environmental knowledge in the Year of Ecology with the help of refresher courses, training lectures and seminars.

Gazprom thinks it principally important that all employees had basic environmental knowledge and used it in their daily practice. Starting from 2011 all employees employed in the head office of Gazprom pass training in the environmental protection sphere in addition to instruction on fire and occupational safety.

In total, 756 such events were held.

Informational stands for employees were executed in many subsidiary companies on the Year of Ecology, the environmental policy of OAO Gazprom with indication of environmental objectives, on the list of valuable environmental aspects for 2012, and the program of environmental measures.

Creative environmental competitions

More than 350 environmental competitions were held in subsidiary companies, including competition of children's paintings, photographs, creative works in the sphere of graphic, fancy arts and crafts, literary work on the environmental subject "Nature and us", "We Make the Planet Green", "In Harmony with Nature", "My World and Ecology", "Earth, Live", "Red Book Seen by the Eyes of Children", "Green Planet", "Clean Water – Living Planet", "Ecodesign", "Environmental Contamination Problems", "Fight for Existence" and many others.

Ceremonial award of subsidiary companies of OAO Gazprom was held at the 3rd International Conference "Environmental Safety in Gas Industry" (ESGI-2013) from the Vernadsky Non-Governmental Environmental Fund for most valuable events within the frames of the Year of Ecology. The Deputy Chairman of the OAO Gazprom Management Committee V.A. Markelov and the President of the Fund V.A. Grachev granted awards:

— OOO Gazprom dobycha Nadym – "For contribution to environmental safety provision when developing Arctic natural resources";
— OOO Gazprom transgaz Stavropol – "For comprehensive and systematic work for expansion of natural gas use as motor fuel";
— OOO Gazprom transgaz Tomsk – "For assistance in rehabilitation and preservation of landscapes;
— OOO Gazprom transgaz Moscow – "For active informational and educating activity in the environmental protection sphere";
— OOO Gazprom transgaz Yugorsk – "For active participation in environmental measures and solution of environmental problems of the region";
— OOO Gazprom gazoraspredeleniye – "For large-scale implementation of measures within the frames of the Year of Ecology in OAO Gazprom";

— OOO Gazprom transgaz Ukhta – “For assistance in preservation of biodiversity and support of specially protected natural areas”;
— OOO Gazprom VNIIGAZ – “For implementation of innovation technologies in the environmental protection sphere”.

Awards of the Vernadsky Non-Governmental Fund for contribution to ecology development were also granted to several tens of best specialists-ecologists of OAO Gazprom subsidiary companies.

More than 300 stimulations were received by subsidiary companies for work in the area of improvement of environmental conditions in the regions of presence from federal, regional and local power bodies, public organizations, children’s educational institutions: awards, certificates of honour, diplomas, letters of thanks.

Conclusion

Implementation of international standards in the environmental management sphere, a high level of environmental responsibility and observation of requirements of the Russian legislation and the international law, the priority of provision of production environmental safety and achievement of corporate environmental objectives lie in the basis of the responsible approach of the *Gazprom Group* in relation to environmental protection recorded in the regulations of the OAO Gazprom Environmental Policy. The reality of achievement of Gazprom environmental targets set and obligations taken is annually confirmed by the achieved actual parameters and significant financial contributions to environmental protection.

The strategic areas of the *Gazprom Group* activity in the environmental protection sphere, which have a significant environmental effect in the Russian Federation scale, were and still are:

— energy and resource saving;
— use of best available technologies for upgrade and commissioning of new production assets;
— development of production of motor fuels with best environmental characteristics, including development of the gas motor fuel market;
— participation in scientific studies and practical actions for rehabilitation of natural complexes, preservation of biodiversity, marine medium protection;
— prevention of accidents and incidents with environmental consequences and compensation of environmental harm in full volume;
— development and implementation of corporate programs, participation in regional and federal programs ensuring environmental safety;
— improvement of the environmental management system.

Measures taken in 2013 within the frames of the Year of Ecology in OAO Gazprom made a worthy contribution to the Year of Environmental Protection in the Russian Federation.

Gazprom once again demonstrated its adherence to the principle of stable development fixed in the corporate Environmental Policy – intense economic growth accompanied by maximal conservation of natural resources and preservation of a favorable natural environment for future generations.

Glossary

APG – associated petroleum gas – mixture of gases and non-hydrocarbon and hydrocarbon vapors coming from oil wells and oil separation.
APP – auxiliary power plant
Biodiversity (biological diversity) – diversity of living organisms in all spheres including onshore, marine and other water ecosystems, which determine their ecological complexes.
Booster compressor station (BCS) – Gas production site station which provides for the gas compression to prepare it in accordance with the project quantitative and qualitive indicators of the given field and projected pressure of gas main pipeline.
CHPP – combined heat and power plant.
CNG – compressed natural gas.
CS – compressor station.
CW – compressor workshop.
EMS – environmental management system.
Environment – combination of natural, natural and anthropogenic and anthropogenic objects.
Environmental control – system of measures of prevention, identification and avoidance of environmental legislation violation, ensuring the conformity of entities and economic facilities with the requirements, including norms and guiding documents in environmental protection.
Environmental expert examination – establishment of relevant documents and (or) the documentation of the planned in connection with the implementation object of ecological examination economic and other activities, the environmental requirements established by technical regulations and legislation on environmental protection, in order to prevent the negative effects of such activities on the environment.
Environmental harm – negative change in environment caused by pollution which resulted in degradation of natural ecosystems and deficit of natural resources.
Environmental management – part of the corporate management system, which has a well designed structure, aimed at achieving objectives enumerated in the environmental policy.
Environmental monitoring – complex system of observing the environmental state, assessment and projecting of changes in environment under natural and anthropogenic factors.
Environmental protection requirements (also – nature protection requirements) – conditions, restrictions or their combination applicable to economic and other activities, which are set by laws, other legal acts, environmental norms, state standards and other guiding documents on environmental protection.
Environmental risk – probability of an event that may cause negative environmental effect associated with economic or other activities, natural and anthropogenic catastrophic situation.
Energy saving – implementation of legal, organizational, scientific, production, technical and economic measures aimed at efficient (rational) use (spending) of fuel energy resources and involving renewable energy into the process. Energy saving is an important objective in conservation of natural resources.
Environmental safety – nature and paramount human values exposure to threats of negative impact initiated by economic and other activities natural and technogenic catastrophic situations.
Environmental protection – activity aimed at preservation and restoration of nature environment, rational use and reproduction of natural resources, prevention of negative impact initiated by economic or other activity and liquidation of its effects (also – nature protection).
FER – fuel and energy resources.
GDS – gas distribution station.
Greenhouse gases – are assumed to cause the global warming effect. The greenhouse gases are the following (in the order of Earth warming potential): water steam, carbon dioxide, methane, ozone, sulfurylfuoride, halocarbons and nitrogen oxide.
GPU – gas pumping unit.
GTS – gas transportation system.
LNG – liquefied natural gas.
LPUMG – linear production unit of main gas pipeline.
MPC – maximum permissible concentration.

Natural object – natural ecosystems, landscape and their components, which sustained their properties.

Natural resources – environmental components, natural, natural and anthropogenic objects, which are or can be involved in economic or other activities as energy sources, manufacturing and consumption as well as have consuming value.

Negative environmental impact – economic or other activities, which initiate negative.

OGCF – oil gas condensate field.

Pollutant – pollutant substance – a substance or mixture which initiates negative environmental impact in case it amount and/or concentration exceeds the preset limit values for chemicals, radioactive components and others and microorganisms.

Quality of environment – state of the environment specified with a number of indicators such as physical, chemical, biological and others.

R&D – research and development.

SDPS – state district power station.

Specially protected natural areas – a part of land, water and air space territory of a great value for nature protection, science, recreation, health and others, which is subject to a special protection regime and fully or partially subtracted from the lands available for business activities as per the decision of governmental authorities. Special protected areas refer to the national endowments.

STF – sewage treatment facilities.

TGP – trunk gas pipeline.

UGS – underground gas storage.

UGSF - underground gas storage facility.

UGSS – Unified Gas Supply System.

VOC – volatile organic compounds.

Waste remote areas – a facility specifically designed allocation of waste (landfill, sludge storage, tailing pond, rock dump etc).

Waste management – activity on waste collection, accumulation, utilization, neutralization, transporting and allocating.

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